



Industrial Automation Catalog

Easy selection, quick delivery, local service

www.norgren.com

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Our dedicated team of experts is on hand with technical advice, support and recommendations to help you get the most effective products, in the shortest timescales, and with the best possible service.

How we deliver value to our customers

Partnerships and problem solving

We have a global team of key account managers and over 400 highly experienced engineers – many with in-depth expertise of key industry sectors.

We recruit and develop the industry's top talent, offering the best training and exposure to world-class products and technologies with some of the world's leading businesses. The strong relationships we form combined with the experience we offer enable us to understand our customers' exact challenges and resolve them precisely.

High performance products

Designed to meet precise industry and application needs, our world-class products are proven to improve service life and performance of equipment.

Our global manufacturing capability and technical centers of excellence are each dedicated to developing and rigorously testing new high performance products to meet specific industry and application needs. Helping improve performance and reduce downtime and energy consumption on production lines globally, our world-class portfolio includes Norgren®, Bimba®, Buschjost®, FAS®, Herion® and Maxseal®. Having proven their value over the years, they stand among the most trusted names in fluid and motion control. We are continuously adding to this portfolio through a program of innovation and new product development.

Because of this, we're able to help our customers solve the world's greatest engineering challenges – reliability, safety and efficiency.

Reliability

As a world leader in our industry, we deliver and support our high quality products through our global service network.

We have world-class manufacturing, sales and service operations in 75 countries, supported by investment in robust project management systems and lean localized production. Together, with our integrated supply chain, and the speed of our Express service, we have the systems, processes and support to deliver quality products and aftersales service precisely, reliably, in full and on time, anywhere.

Americas distributor network

In the Americas, Norgren has over 50 dedicated and experienced distributors to ensure products and expertise are available on a local level.

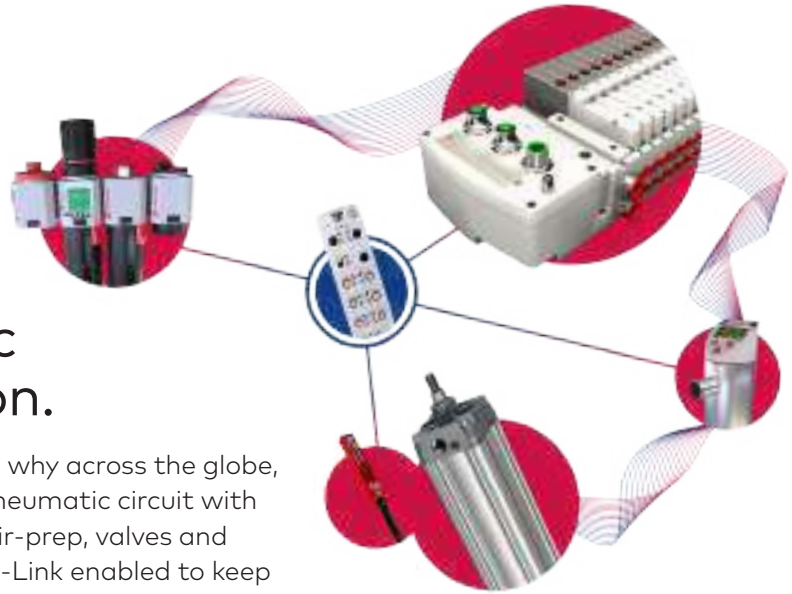


We get closer to our customers to understand their exact challenges.

Complete. Connected. Confident.

A complete pneumatic circuit you can count on.

The world is more connected than ever. That's why across the globe, Norgren is helping engineers complete their pneumatic circuit with confidence. All our core components — from air-prep, valves and actuators to sensors and switches are now IO-Link enabled to keep you in the know. We help our customers tackle all their motion control challenges with the most forward-thinking innovations in pneumatics.



Availability. Expertise. Speed.

Easy selection, easy ordering – finding the parts you need is simplicity itself!

Using the Industrial Automation Catalog

This catalog includes a number of features designed to help you select and order the best parts, quickly and efficiently.

Part numbers and technical information

Each product page has a full listing of part numbers, a photo and summary of technical information – everything you need to order the right part.

Need more than one product?

Our "easy link" boxes lead you to associated and auxiliary products. We also supply helpful tips to guide your decision-making.

Made to order actuators

We can assemble an actuator tailored to your exact requirements at short notice. Call or email us for more information.

Sector expertise

We service sectors ranging from Energy and Rail, to Commercial Vehicle, Food & Beverage, Life Sciences and Industrial Automation.

Speed of delivery

Most of our products are available for same day dispatch, and we operate a global engineering and sales network and back every single transaction with expert support, helping you keep your equipment running smoothly – wherever you are.

Trusted product brands

Manufactured to the most demanding standards, our product ranges include KIP®, Bimba®, Herion®, Buschjost®, Lintra Plus®, Olympian®, Excelon®, Maxseal®, and Pneufit®.

Reliability

Our products are backed by an industry leading warranty.

[Actuators]

Norgren offers one of the industry's most comprehensive line of electric and pneumatic actuators. From 5/16" to 12" bores, NFPA, ISO, rodless, compacts, and many more. Choose from an assortment of construction materials. Made to order and custom applications are our specialty, and we provide quick turnaround.



Compact design



Rodless technology



FAST FIND GUIDE

Please note: These products represent only part of the Norgren actuator range. If you can't see the option you require please contact us.

NFPA Aluminum, Steel, and Stainless Steel Cylinders

<p>NFPA P-Series Aluminum Ø 1-1/2" to 4" -20°F to 200°F</p>  <p>Page 4</p>	<p>NFPA A-Series Aluminum Ø 1-1/2" to 12" -20°F to 200°F</p>  <p>Page 8</p>	<p>NFPA J-Series Steel Ø 1-1/2" to 12" -20°F to 200°F</p>  <p>Page 12</p>	<p>NFPA Series SS Stainless Steel Ø 1-1/2" to 8" -20°F to 200°F</p>  <p>Page 16</p>	<p>NFPA Series N Non-rotating 1-1/2" to 4" -20°F to 200°F</p>  <p>Page 21</p>
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ISO/VDMA Cylinders

ISO/VDMA
Ø 32 to 125 mm
Aluminum



Page 23

Electric Actuators

<p>ELION Rod Style Ø 32 to 100 mm Aluminum</p>  <p>Page 26</p>	<p>ELION Rodless Style Ball Screw Ø 48 to 100 mm Aluminum</p>  <p>Page 30</p>	<p>ELION Rodless Style Belt Drive Ø 48 to 100 mm Aluminum</p>  <p>Page 32</p>
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Roundline Stainless Steel Body

<p>Roundline Plus Stainless Steel Ø 5/16" to 3" -20°F to 200°F</p>  <p>Page 35</p>	<p>RPD Series Roundline Plus Acetal Resin caps Ø 9/16" to 2" 32°F to 160°F</p>  <p>Page 39</p>
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F-Series Plus Compact

F-Series Plus
Ø 9/16" to 3"
-40°F to 200°F



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Lintra® Plus Rodless Cylinders

<p>Lintra Plus C/146000 Ø 25 to 63 mm -22°F to 176°F</p>  <p>Page 43</p>	<p>Lintra Plus C/146100 Ø 25 to 63 mm -22°F to 176°F</p>  <p>Page 44</p>
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Magnetically Operated Switches

Magnetically operated
CS8, CS7, M/50



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P-SERIES NFPA CYLINDER WITH PROFILE TUBE

1.50"–4.00" Bores

- » 1.50" - 4.00" Bores
- » Adaptive Cushioning System "ACS"
- » Optional non-cushioned
- » Optional Ecology Seal
- » Magnetic Piston
- » Modular Mountings

Technical Data

Medium:

Compressed air, filtered, clean, dry, lubricated or non-lubricated

Operation:

Double Acting
Adjustable Cushioning

Operating Pressure:

250 PSIG

Operating Temperature:

25°F to 175°F

Cylinder Diameters:

1.50", 2.00", 2.50", 3.25", 4.00"

Strokes:

0.125" - 100"

Ports:

3/8 NPT, 1/2 NPT

Lubrication:

None required. P-Series cylinders are rated for non-lube service.

All internal components are lubricated at the time of assembly with a Lithium based grease.

Materials:

Barrel: Anodized aluminum extrusion, hard coat anodized ID, clear anodized OD.

End Caps: Die cast aluminum

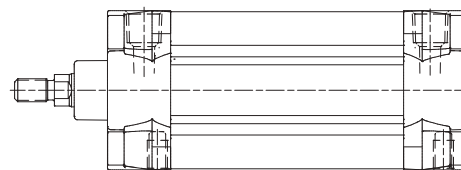
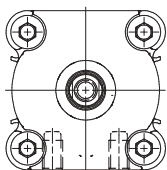
Piston Rod: Hard chrome plated steel

Seals: Urethane rod seal/wiper, Nitrile piston and tube end seals

Rod Bearing: Polymer



→ Online at norgren.com








Accessories

Mounting Kits

Bore	Rod Clevis	Rod Eye	MF1/MF2	MS2	MS1	MP1	MP2	MP4	MX1
1-1/2"	PMK-RC-A1	PMK-RE-A1	PMK-MF1-150	PMK-MS-150	PMK-MS1-150	PMK-MP1-150	PMK-MP2-150	PMK-MP4-150	PMK-MX1-150
2"	PMK-RC-A1	PMK-RE-A1	PMK-MF1-200	PMK-MS-200	PMK-MS1-200	PMK-MP1-200	PMK-MP2-200	PMK-MP4-200	PMK-MX1-200
2-1/2"	PMK-RC-A1	PMK-RE-A1	PMK-MF1-250	PMK-MS-250	PMK-MS1-250	PMK-MP1-250	PMK-MP2-250	PMK-MP4-250	PMK-MX1-250
3-1/4"	PMK-RC-B1	PMK-RE-B1	PMK-MF1-325	PMK-MS-325	PMK-MS1-325	PMK-MP1-325	PMK-MP2-325	PMK-MP4-325	PMK-MX1-325
4"	PMK-RC-B1	PMK-RE-B1	PMK-MF1-400	PMK-MS-400	PMK-MS1-400	PMK-MP1-400	PMK-MP2-400	PMK-MP4-400	PMK-MX1-400

Models

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.	Service kit
	1-1/2"	2	3/8					PRK-150
P-1677A1-2.00X4.00-PS	2"	4	3/8	C24250638	C24470638	C2VA00638	3/8	PRK-200
P-1677A1-2.50X6.00-PS	2-1/2"	6	3/8	C24250638	C24470638	C2VA00638	3/8	PRK-250
P-1677B1-3.25X8.00-PS	3-1/4"	8	1/2	C24250748	C24470748	C2VA00748	1/2	PRK-325
P-1677B1-4.00X10.00-PS	4"	10	1/2	C24250748	C24470748	C2VA00748	1/2	PRK-400

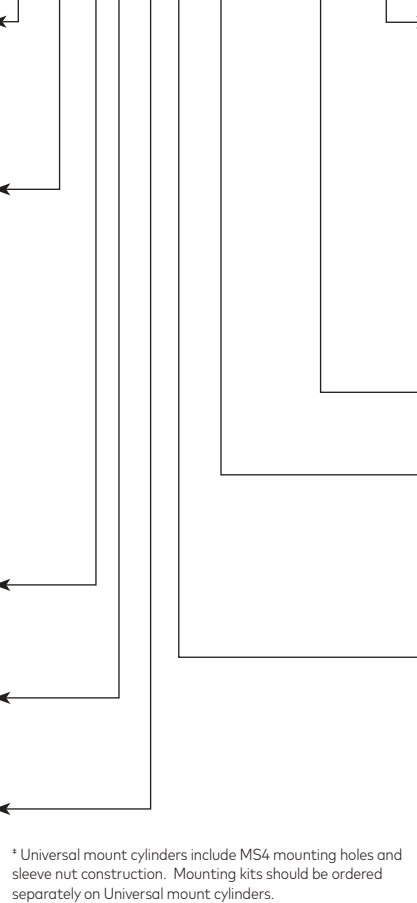
P-SERIES NFPA CYLINDER WITH PROFILE TUBE

1.50"–4.00" Bores

Options Selector

EP 16 7 7 A 1-1.50X6.000-PS-RX(1.250)

Series	Substitute
Series P Cylinder	P
Series P Double Rod End Cylinder	DP
Series EP Cylinder (Ecology seals)	EP
Series EP Double Rod End Cylinder (Ecology Seals)	EDP
Mount	Substitute
Universal (Standard – MS4 & SNC)	16 *
Head Rectangular Flange (MF1)	03
Cap Rectangular Flange (MF2)	04
Tie Rods Ext. Both Ends (MX1)	06
Tie Rods Ext. Cap End (MX2)	6C
Tie Rods Ext. Head End (MX3)	6R
(2) Tie Rods Ext. Both Ends (MX4)	6B
Side Lugs (MS2)	09
Side End Angle (MS1)	11
Cap Clevis (MP1)	12
Cap Clevis (MP2)	22
Cap Eye (MP4)	42
Head Cushion	Substitute
No Cushion*	3
Adjustable Adaptive Cushion (Standard)	7
Cap Cushion	Substitute
No Cushion*	3
Adjustable Adaptive Cushion (Standard)	7
Rod Diameter	Substitute
0.625" diameter rod (1.50", 2.00", 2.50" Bores)	A
1.00" diameter rod (3.25", 4.00" Bores)	B



Options	
Back-to-Back cylinder configuration	BB (**)
Piston rod stud - Medium strength threadlocker	BL
Case Hardened Piston Rod	HR
Passive Rod Lock ¹	LE
Magnetic Piston (Standard/Required)	PS
Piston rod stud - High strength threadlocker	RS
Rod Extension (Specify additional length of rod)	RX()
303 Stainless Steel Piston Rod (Hard Chrome Plated)	SS
Special Rod Thread (Specify thd. type)	T()
Thread Extension (Specify additional length of thd.)	TX()***
Stroke	
Stroke in inches to three decimal places up to 100"	
Bore	
1-1/2" Bore	1.50
2" Bore	2.00
2-1/2" Bore	2.50
3-1/4" Bore	3.25
4" Bore	4.00
Rod Thread	
Small Male – Solid (KK) (Standard)	1
Intermediate Male – Solid (CC)	2
Female (KK)	3
Full Thread Male – Solid (FF)	6
Plain Rod End – No Thread	7


¹ Universal mount cylinders include MS4 mounting holes and sleeve nut construction. Mounting kits should be ordered separately on Universal mount cylinders.

* Non cushioned cylinders are only available with Ecology Piston seals. Cushion seal will be removed. Note: It is recommended to use cushions for applications with operating speeds in excess of 20" per second.

** BB option must reference 2nd stroke. If mounting is selected, mount will be assembled with respect to the primary stroke.

*** Thread extension in increments of 0.125" up to 2.00" max.

M/50 switches*

Switch P/N	Cable Material	Type
		
M/50/LSU/*V	PVC	Reed LED
M/50/EAN/*V	PVC	Solid State Sinking (NPN) LED
M/50/EAP/*V	PVC	Solid State Sourcing (PNP) LED

*Insert cable length 2m, 5m, 10m

NFPA ALUMINUM & STEEL CYLINDERS

Cylinder Order Information

EJ 01 7 7 A 1-2.00 x 6.000 - L(14)-PS-V

Series	
Series A Cylinder (Aluminum)	A
Series A Double Rod End Cylinder	DA
Series EA Cylinder	EA
Series EA Double Rod End Cylinder	EDA
Series J Cylinder (Steel)	J
Series J Double Rod End Cylinder	DJ
Series EJ Cylinder	EJ
Series EJ Double Rod End Cylinder	EDJ
Mounting Options	
Side Tapped (MS4)	01
Head Rectangular Flange (MF1)	03
Head Square (ME3) – 7" & 8" Bores	03
Cap Rectangular Flange (MF2)	04
Cap Square (ME4) – 7" & 8" Bores	04
Basic Cylinder No Mounting (MX0)	05
Both Ends (4) Tie Rods Ext. (MX1)	06
Both Ends (2) Tie Rods Ext. (MX4)	6B
Cap Tie Rods Ext. (MX2)	6C
Head Tie Rods Ext. (MX3)	6R
Removable Head Trunnion (MT1) - A & EA	7R
Head Trunnion (MT1) - J & EJ	07
Removable Cap Trunnion (MT2) - A & EA	8R
Cap Trunnion (MT2) - J & EJ	08
Side Lugs (MS2)	09
Center Trunnion (MT4)	10
Side End Angles (MS1)	11
Cap Fixed Clevis (MP1)	12
Side End Lugs (MS7)	15
Sleeve Nut Construction (Universal)	16
Head Square Flange (MF5)	20
Cap Square Flange (MF6)	21
Detachable Cap Clevis (MP2)	22
Cap Fixed Eye (MP3)	32
Detachable Cap Eye (MP4)	42
Spherical Bearing	52
Base Bar (Not NFPA A & EA Only)	60

Cushion in Head	
None	3
Non-Adjustable Cushion	*5
Adjustable Cushion (Position 2)	7
Decel Cushion	9

* Standard with EA & EJ

Cushion in Cap	
None	3
Non-Adjustable Cushion	*5
Adjustable Cushion (Position 2)	7
Decel Cushion	9

* Standard with EA & EJ

Bore x Stroke

Options

Additional Standard Options - See next page for full listing	
Case Hardened (50 Rc)	HR
Port Location position 1 standard: L(Head Cap) (specify position 1 thru 4 for head and/or cap)	L(_)
Rod Lock (passive)	LE
Low Friction	LF
Stroke Adjustment	A
Metal Rod Scraper	MS
Cushion Adjust Screw Location position 2 standard: N(Head Cap) (specify position 1 thru 4 for head and/or cap)	N(_)
Non-Standard Port Sizes: [specify port size for P(_H) head only, P(_C) cap only, or P(_L) both head & cap]	*P(_)
Magnetic Piston – includes aluminum tube option - J & EJ	PS
Rod Stud	RS
Rod Extensions (specify length of additional rod extension)	RX
Stainless Steel tie-rods	S
303 Stainless Steel (Hard Chrome Plated)	SS
Stainless Steel bushing	SB
Stop Tube (specify stop tube length)	ST(_)
Special Rod Threads (specify rod thread)	T
Thread Extensions (specify length of thread extension)	TX
FPM Seals	V

* Oversized ports may increase the overall length by 1/8". Consult factory for impacted models.

Piston Rod Threads		
Type	Type	Dim ref
Small Male (Solid) (std)	1	KK
Intermediate Thread Male (Solid)	2	CC
Female	3	KK
Full Thread Male (Solid)	6	FF
Plain Rod End	7	-

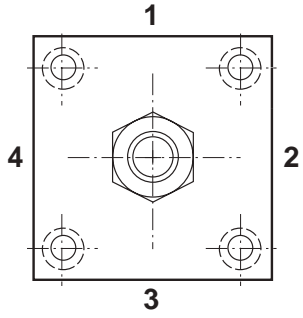
Cyl bore	rod ltr.	rod dia. (mm)	Cyl bore	rod ltr.	rod dia. (mm)
1-1/2	A	5/8	6	C	1-3/8
	B+	1		D	1-3/4
2	A	5/8	7	E	2
	B	1		F	2-1/2
	C+	1-3/8		C	1-3/8
	A	5/8		D	1-3/4
2-1/2	B	1	8	E	2
	C	1-3/8		F	2-1/2
	D+	1-3/4		C	1-3/8
	B	1		D	1-3/4
	C	1-3/8		E	2
3-1/4	D	1-3/4	10	F	2-1/2
	E	2		D	1-3/4
	C	1-3/8		E	2
	D	1-3/4		F	2-1/2
4	B	1	12	D	1-3/4
	C	1-3/8		E	2
	D	1-3/4		F	2-1/2
	E	2		E	2
	F	2-1/2		F	2-1/2
5	B	1			
	C	1-3/8			
	D	1-3/4			
	E	2			

Notes:
 + Head cushion not available on these bore and piston rod combinations.
 Additional rod sizes available upon request.
 Dimensions for thread sizes available on following pages.

Port and Cushion Adjustment Positions

(As viewed from rod end: Port standard position 1, Cushion Adjustment standard position 2.)

NOTE: A Port and a Cushion Adjustment cannot be in the same position.



NFPA ALUMINUM & STEEL CYLINDERS

NFPA SERIES A ALUMINUM & J STEEL CYLINDERS, 1-1/2" TO 12" BORE SIZE

A, EA, J, and EJ Standard and special cylinder options

Option Code, (alphabetical)	Description
A(-)	Stroke adjustment single piston (specify adjustment length)
AA(-)	Stroke adjustment double piston (specify adjustment length)
BL	Removable piston rod stud (installed with removable adhesive sealant)
HR	Case hardened piston rod
L(- -)	Non-standard port location position 1 standard: L (Head Cap) (specify position 1 thru 4 for head and/or cap)
LA	Low friction cylinder (Pak-Lap™ style seals)
LE	Rodlock
LF	Low friction cylinder (Nitrile compounded with PTFE rod and piston seals) (Not available with Ecology series)
MS	Metal scraper
N(- -)	Cushion adjust screw location position 2 standard:N(Head Cap) (specify position 1 thru 4 for head and/or cap)
P(-)*	Non-standard port sizes – [specify port size for P(-H) head only, P(-C) cap only, or P(-) both head & cap]
PP	Seals in cylinder O-ring loaded U-cups (rod and piston seals) – (A & J Only)
PN	Pinned piston and rod assembly
PS	Magnetic piston modification
RS	Studded male piston rod end
RX(-)	Piston rod extension over standard (specify additional "C" length)
S	303/304 Stainless steel tie rods & nuts
SB	Stainless steel rod bushing nut
SC*	Single acting spring extend cap end of cylinder
SL	Steel cylinder tubing
SR*	Single acting spring retract rod end of cylinder
SS	303 Stainless steel piston rod
ST(-)	Stop tube on rod end of cylinder: ST
SV(- -)	Stroke signal valve(s): SV (head cap)
T(-)	Non-standard piston rod thread (specify thread)
TF(-)	Piston rod thread depth over standard (Female) (specify additional "A" length)
TS	Stainless steel cylinder tubing
TX(-)	Piston rod thread extension over standard (Male) (specify additional "A" length)
UB	Head and cap bumpers (Adds 1/4" per bumper to overall length)
V	FPM seals in cylinder
XI(-)	Type #10 trunnion set dimension (MT4 model only) (customer must specify length)

*Standard available for 1 1/2", 2", 2-1/2" bores, 12" max stroke, 12 lbs. force preload, 30 lbs. force compressed.

Cushions not available on spring end. For other spring forces, bore sizes or longer strokes, consult factory.

*Oversized ports may increase the overall length by 1/8", consult factory for impacted models.

Consult Factory for These Special Options:

Option Code	Description
AP	Air/Oil piston (piston supplied with O-ring hooded U-cup on cap end for air/oil operation)
BB	Cylinders mounted back to back
EN*	Electroless nickel plated cylinder
H	Piston rod seals O-ring loaded U-cups – (A & J Only)
RB	Rod boot over piston rod
UA	Unit-Air assembly (valve mounted to cylinder)
UC	Cap bumper (Adds 1/4" per bumper to overall length)
UH	Head bumper (Adds 1/4" per bumper to overall length)
TK	Thrust key plate mounting – [01 (MS4), 09 (MS2), and 15 (MS7)]
VM	Valve mounting only

* When ordering "EN" option specify S, SS, TS options.

NFPA A-SERIES ALUMINUM CYLINDERS

1-1/2" – 12" bore sizes

- » Non-cushion, adjustable, or fixed cushion
- » Impact dampening
Ecology Seals optional
- » Ecology cylinders meet OSHA noise standards
- » NFPA interchangeable

Technical Data

Medium:

Filtered compressed air to 250 PSI

Operating temperature:

-20°F to 200°F

Operating Pressure:

250 psig

Bore Sizes: 1-1/2", 2", 2-1/2", 3-1/4", 4", 5", 6", 7", 8", 10", 12"

Lubrication:

None required

Materials

Head and End Caps:

Black anodized aluminum alloy

Tube: 1-1/2" – 12", Aluminum alloy,

clear anodized O.D., hard coat

anodized I.D..

Piston: Machined high-strength

aluminum alloy.

Piston rod: hard chrome plated steel

Rod Bearing: oil impregnated

sintered iron

Seals: Urethane rod seal/ wiper, nitrile

piston seals, nitrile tube end seals







Tie Rods: high-tensile strength steel



→ Online at
norgren.com

Accessories

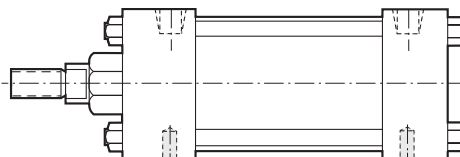
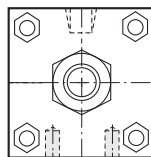
Switches

Bore	Rod eye	Rod clevis	Eye bracket	Rod alignment coupler	Bore	Model	Type	Bore	Model	Type
										
1-1/2"	49015A	49028A	49021	CC-1-07	3/4" – 2-1/2"	CS8-2-04	Reed	2" – 4"	CS7-04	Reed
2"	49015A	49028A	49021	CC-1-07	3/4" – 2-1/2"	CS8-2-31	Solid state (PNP)	2" – 4"	CS7-31	Solid state (PNP)
2-1/2"	49015A	49028A	49021	CC-1-07	3/4" – 2-1/2"	CS8-2-32	Solid state (NPN)	2" – 4"	CS7-32	Solid state (NPN)
3-1/4"	49013A	49030A	49020	CC-1-12						
4"	49013A	49030A	49020	CC-1-12						

NFPA A-SERIES ALUMINUM CYLINDERS

1-1/2" to 12" bore sizes







Side Tapped (MS4)



NON-CUSHIONED

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Service kit
									
A0133A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
A0133A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
A0133A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
A0133A1-2.50X8.000-PS	2-1/2	8	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
A0133B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323
A0133B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403

ADJUSTABLE CUSHIONS

Model


Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
A0177A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
A0177A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
A0177A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
A0177B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
A0177B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

WITH IMPACT DAMPENING ECOLOGY SEALS, FIXED CUSHION

Model

Accessories

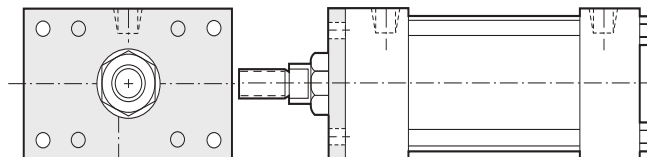
Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EA0155A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EA0155A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EA0155A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EA0155B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EA0155B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA A-SERIES ALUMINUM CYLINDERS

1-1/2" to 12" bore sizes

Front Flange (MF1)

NON-CUSHIONED



Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit
									
A0333A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
A0333A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
A0333A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
A0333B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323
A0333B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403

ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
A0377A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
A0377A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
A0377A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
A0377B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
A0377B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

WITH IMPACT DAMPENING ECOLOGY SEALS AND FIXED CUSHION

Model

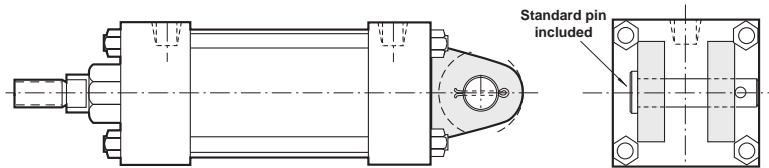
Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EA0355A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EA0355A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EA0355A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EA0355B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EA0355B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA A-SERIES ALUMINUM CYLINDERS

1-1/2" to 12" bore sizes


Fixed Cap Clevis Mount (MP1)



ADJUSTABLE CUSHIONS

Model



Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
A1277A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
A1277A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
A1277A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
A1277B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
A1277B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

NON-CUSHIONED

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit
									
A1233A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
A1233A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
A1233A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
A1233B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323
A1233B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403

WITH IMPACT DAMPENING ECOLOGY SEALS AND FIXED CUSHION

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EA1255A1-1.50X2.000-PS	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EA1255A1-2.00X4.000-PS	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EA1255A1-2.50X6.000-PS	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EA1255B1-3.25X8.000-PS	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EA1255B1-4.00X10.000-PS	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA J-SERIES STEEL CYLINDERS

1-1/2" to 12" bore sizes

- » Non-cushion, adjustable, or fixed cushion
- » Impact dampening
Ecology Seals optional
- » Ecology cylinders meet OSHA noise standards
- » NFPA interchangeable

Technical Data

Medium:

Filtered compressed air to 250 PSI

Operating temperature:

-20°F to 200°F

Operating Pressure:

250 psig

Bore Sizes: 1-1/2", 2", 2-1/2", 3-1/4", 4", 5", 6", 7", 8", 10", 12"

Lubrication:

None required

Materials

Head and End Caps:

Precision machined steel

Tube: 1-1/2" to 12" Steel Tube, hard chromeplated I.D.

Piston: Steel

Piston rod: hard chrome plated steel

Rod Bearing: oil impregnated sintered iron





Seals: Urethane rod seal/ wiper, nitrile piston seals, nitrile tube end seals

Tie Rods: high-tensile strength steel



→ Online at norgren.com

Accessories

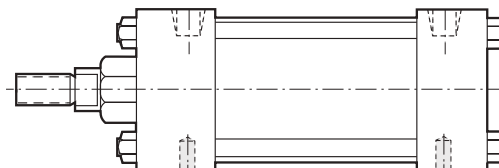
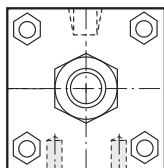
Bore	Rod eye	Rod clevis	Eye bracket	Rod alignment coupler
1-1/2"				
2"	49015A	49028A	49021	CC-1-07
2-1/2"	49015A	49028A	49021	CC-1-07
3-1/4"	49013A	49030A	49020	CC-1-12
4"	49013A	49030A	49020	CC-1-12

NFPA J-SERIES STEEL CYLINDERS

1-1/2" to 12" bore sizes

Side Tapped (MS4)

NON-CUSHIONED



Model









Accessories

Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit
 J0133A1-1.50X2.000	1-1/2	2	3/8						
J0133A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
J0133A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
J0133B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-253
J0133B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323

ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
J0177A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
J0177A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
J0177A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
J0177B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
J0177B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

WITH IMPACT DAMPENING ECOLOGY SEALS, FIXED CUSHION

Model

Accessories

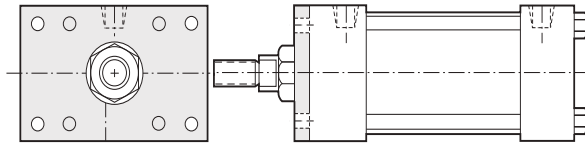
Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EJ0155A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EJ0155A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EJ0155A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EJ0155B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EJ0155B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA J-SERIES STEEL CYLINDERS

1-1/2" to 12" bore sizes







Front Flange (MF1)

NON-CUSHIONED



Model









Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit
									
J0333A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
J0333A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
J0333A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
J0333B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323
J0333B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403

ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
J0377A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
J0377A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
J0377A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
J0377B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
J0377B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

WITH IMPACT DAMPENING ECOLOGY SEALS AND FIXED CUSHION

Model

Accessories

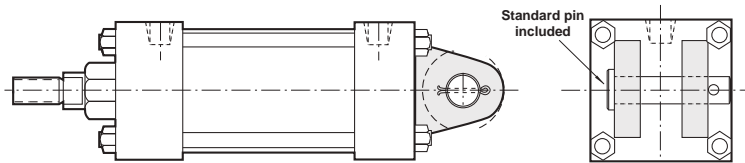
Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EJ0355A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EJ0355A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EJ0355A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EJ0355B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EJ0355B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA J-SERIES STEEL CYLINDERS

1-1/2" to 12" bore sizes





Fixed Cap Clevis Mount (MP1)

NON-CUSHIONED



Model









Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit
									
J1233A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153
J1233A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203
J1233A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253
J1233B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323
J1233B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403

ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
J1277A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-153	CSK-15-13
J1277A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-203	CSK-15-13
J1277A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	AJK-253	CSK-15-13
J1277B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-323	CSK-25-23
J1277B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	AJK-403	CSK-25-23

WITH IMPACT DAMPENING ECOLOGY SEALS AND FIXED CUSHION

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Rod Bearing kit	Piston seal kit	Cushion seal kit
										
EJ1255A1-1.50X2.000	1-1/2	2	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-153	CSK-15-13
EJ1255A1-2.00X4.000	2	4	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-203	CSK-15-13
EJ1255A1-2.50X6.000	2-1/2	6	3/8	C24250638	C24470638	C2VA00638	3/8	RBK-15	EJK-253	CSK-15-13
EJ1255B1-3.25X8.000	3-1/4	8	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-323	CSK-25-23
EJ1255B1-4.00X10.000	4	10	1/2	C24250748	C24470748	C2VA00748	1/2	RBK-25	EJK-403	CSK-25-23

NFPA SERIES SS STAINLESS STEEL CYLINDERS

1-1/2" to 8" bore sizes

- » Precision machined 300 Series stainless steel components
- » Cushioned and non-cushioned models
- » Rated for 250 psi Air and 400 psi hydraulic, non-shock
- » Designed for non-lube service

➔ Online at norgren.com

Technical Data

Medium:
Filtered compressed air to 250 PSI

Operating temperature:
-20°F to 200°F

Operating Pressure:
250 psig

Bore Sizes:
1-1/2", 2", 2-1/2", 3-1/4", 4", 5", 6", 7", 8"

Materials:
Head and End Caps: 304 stainless steel
Tube: 304 stainless steel
Piston Rod: hard chrome plated 303 stainless steel
Piston: Aluminum alloy with PTFE composite wearband
Tie Rods: 303 stainless steel
Seals: urethane rod seal and wiper, nitrile piston seals
Rod Bearings: 304 stainless steel with PTFE composite wearband



Options selector

SC04J-A01-AA600

Series	
S	Series SS
D	Series D*

Bore	Single Rod End	Double Rod End
1-1/2"	C	Q
2"	D	R
2-1/2"	E	S
3-1/4"	F	T
4"	G	U
5"	L	Y
6"	J	W
8"	M	Z

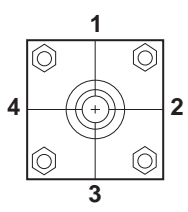
Full Strokes (inches)	
0" Stroke	00
1" Stroke	01
2" Stroke	02
3" Stroke	03
4" Stroke	04
5" Stroke	05
6" Stroke	06
...	...
99" Stroke	99

Fractional Increments of Stroke		
0"	A	1/2" J
1/16"	B	9/16" K
1/8"	C	5/8" M
3/16"	D	11/16" N
1/4"	E	3/4" P
5/16"	F	13/16" R
3/8"	G	7/8" S
7/16"	H	15/16" T

Rod Size & Style			
Standard		Oversized	
Male KK	A	Male KK	H
Male CC**	B	Male CC	J
Full Dia. Thd.	C	Full Dia. Thd.	K
Female XX	D	Female XX	M
Studded E		Studded N	

* D series built with PTFE seals.
** On 1-1/2", 2" & 2-1/2" Bore Sizes with 5/8" Rod, CC = 7/16" - 20 (NFPA)

No Options	00
Magnetic piston	90
Optional Seals	
No Option	A
FPM Seals	1
Air/Oil Seal	3
Metallic Rod Scraper	5
Ecology Piston Seals	6
Cushions	
Needle Position	1 2* 3 4
No Cushions	A
Head Only	B C D E
Cap Only	G H J K
Head and Cap	N M P R
Fixed	U
*Standard position	
Ports	
Position	1* 2 3 4
Standard	A B C D
Oversized*	E G H J
*Standard position *NFPA	
Mounting Options	
Basic (MX0)	01 Head Square (ME3)* 10
Bottom Tap (MS4)	02 Cap Square (ME4)* 11
Front Flange (MF1)	04 Head Trunnion (MT1) 15
Rear Flange (MF2)	05 Cap Trunnion (MT2) 16
Cap Fixed Clevis (MP1)	06
*8" Bores only	



Port and Cushion Needle Positions (As viewed from rod end)

Accessories

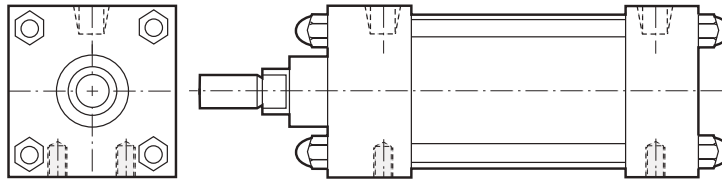
Bore	Rod clevis	Rod clevis pin	Eye bracket	Rod alignment coupler
1-1/2"	S-92-03A	S-96-03A	S-89-03A	SC-1-07
2"	S-92-03A	S-96-03A	S-89-03A	SC-1-07
2-1/2"	S-92-03A	S-96-03A	S-89-03A	SC-1-07
3-1/4"	S-92-065	S-96-065	S-89-065A	SC-1-12
4"	S-92-065	S-96-065	S-89-065A	SC-1-12

NFPA SERIES SS STAINLESS STEEL CYLINDERS

1-1/2" to 8" bore sizes





Side Tapped (MS4)

NON-CUSHIONED



Model





Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B02-EAA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B02-EAA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B02-EAA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A02-EAA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A02-EAA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08

ADJUSTABLE CUSHION

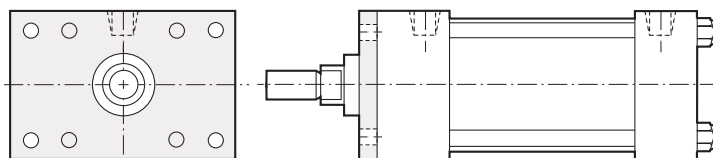
Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B02-EMA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B02-EMA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B02-EMA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A02-EMA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A02-EMA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08





Front Flange (MF1)

NON-CUSHIONED



Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B04-EAA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B04-EAA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B04-EAA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A04-EAA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A04-EAA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08





NFPA SERIES SS STAINLESS STEEL CYLINDERS

1-1/2" to 8" bore sizes

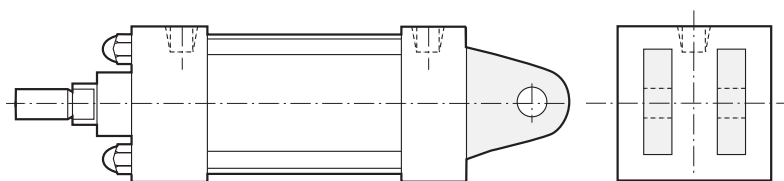
ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B04-EMA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B04-EMA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B04-EMA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A04-EMA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A04-EMA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08





Cap Fixed Clevis (MP1)



NON-CUSHIONED

Model





Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B06-EAA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B06-EAA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B06-EAA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A06-EAA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A06-EAA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08

ADJUSTABLE CUSHIONS

Model

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Elbow fitting	Tube O.D.	Piston seal kit
							
SC02A-B06-EMA00	1-1/2	2	3/8	D24250638	D24450638	3/8	SSK-03
SD04A-B06-EMA00	2	4	3/8	D24250638	D24450638	3/8	SSK-04
SE06A-B06-EMA00	2-1/2	6	3/8	D24250638	D24450638	3/8	SSK-05
SF08A-A06-EMA00	3-1/4	8	1/2	D24250748	D24450748	1/2	SSK-065
SG10A-A06-EMA00	4	10	1/2	D24250748	D24450748	1/2	SSK-08

IVAC

Integrated Valve and Actuator Control

PRA/882000 Series 32 to 100mm bore – up to 1,000mm stroke length.



We've worked closely with customers in key industry sectors to fully understand what improvements they wanted from their pneumatic controls. The response highlighted a widespread need for improved energy efficiency, reduced downtime and greater ease of use.

A family of products incorporating proven technology, IVAC is a light weight, strong, actuator with integrated solenoid valve, cushion and speed control plus position sensors. The ISO/VDMA dimensions mean that it can be used to replace existing traditional systems, or used on new installations. Using IVAC rather than traditional components, energy consumption can be reduced by up to 50%. The unit has been rigorously tested in operational conditions by customers in a wide range of industries.

Unique patented design delivers significant benefits

Saves Cost

- > Simplified specification and design, ordering, installation and maintenance
- > Only 1 air connection and 1 electrical connector per unit
- > Integrated sensor adjustment
- > Glandless spool valve for life expectancy of over 200 million cycles
- > Cleanline body offers simple washdown when used in critical applications

Saves Energy

- > Reduction in "dead volume" of compressed air within system
- > Faster response times improve machine efficiency and increase production
- > Can achieve compressed air savings of up to 50% compared to conventional systems

 Find out more
www.norgren.com

OL Electric®



Norgren's OL Electric® actuator is designed, built, and tested to provide the longest life, greatest durability, highest speed, and greatest thrust per dollar. They are ideal for applications requiring greater control for enhanced flexibility. Many mounting, motor, performance, and custom options are available to suit your application needs.

Features and benefits

- > Bore sizes/Thrust ranges: 1.5"/up to 75 lbs., 2"/up to 150 lbs., 3"/up to 350 lbs.
- > Non rotating rod is standard with OL Actuators
- > Choose no motor, AC or DC stepper motors
- > Motor, encoder, and driver available out of the box
- > Reverse parallel motor option conserves space
- > Screw accuracy: 0.0006 in./in.

→ Find out more
www.norgren.com

NFPA SERIES N NON-ROTATING CYLINDERS

1-1/8" to 4" bore size

- » NFPA Interchangeable
- » Adjustable cushion
- » Rated for 250 psi air
- » Designed for non-lube service

Technical Data

Medium:
Filtered compressed air to 250 PSI

Operating temperature:
-20°F to 200°F

Operating Pressure:
250 psig

Bore Sizes: 1-1/8", 1-1/2", 2", 2-1/2", 3-1/4", 4"

Materials:

Head and end caps:
black anodized aluminum alloy
Tube: Aluminum, clear anodized O.D., hard coat anodized I.D.
Piston Rod: Hard chrome plated steel
Piston: Machined high-strength aluminum alloy
Rod Bearings: Oil-impregnated sintered iron
Tie Rods: High-tensile strength steel
Seals: Nitrile



➔ Online at norgren.com

Options selector

★★★★★-★01-★B★★

Series

N	Series N
Q	Series Q Electroless Nickel

Single Rod End	Bore	Double Rod End*
B	1 1/8"	P
C	1 1/2"	Q
D	2"	R
E	2 1/2"	S
F	3 1/4"	T
G	4"	U
6"	J	W
8"	M	Z

*Double Rod End has two Piston Rods on one end and one Piston Rod on opposite end.

Full Strokes (inches)

0" Stroke	00
1" Stroke	01
2" Stroke	02
3" Stroke	03
4" Stroke	04
5" Stroke	05
6" Stroke	06
...	...
99" Stroke	99

Fractional Increments of Stroke

0"	A	1/2"	J
1/16"	B	9/16"	K
1/8"	C	5/8"	M
3/16"	D	11/16"	N
1/4"	E	3/4"	P
5/16"	F	13/16"	R
3/8"	G	7/8"	S
7/16"	H	15/16"	T

Rod Axis

E	Horizontal Rod Axis
N	Vertical Rod Axis
A	No Tooling Plate - Horizontal Rod
B	No Tooling Plate - Vertical Rod
C	Blank Rod End - Horizontal Rod*
D	Blank Rod End - Vertical Rod*
X	Special

* Does not include tooling plate

Options

O	No Options
M	Metal Rod Scraper
P	Air/Oil Piston
R	Double Rod W/OS Cap Rod
S	Stainless Piston Rods
V	Viton Seals
X	Special

Magnetic Option

O	No Options
M	Magnetic Piston

B Design Level

Cushions

Needle Position	1	2*	3	4
No Cushions	A			
Head Only	B	C	D	E
Cap Only	G	H	J	K
Head and Cap	N	M	P	R
Special	X			

*Standard position

Ports

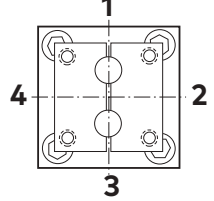
Position	1*	2	3	4
Standard	A	B	C	D
Special	x			

*Standard position

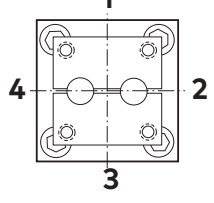
Mounting Options

01	No Mounts	(MX0)	07	Det. Clevis (MP2)
02	Bottom Tap	(MS4)	18	Det. Eye (MP4)
04	Front Flange	(MF1)	20	Base Bar
05	Rear Flange	(MF2)	XX	Special

Vertical Rod Axis



Horizontal Rod Axis



Switch, Port, and Cushion Needle Positions (As viewed from twin rod end)

Model Accessories

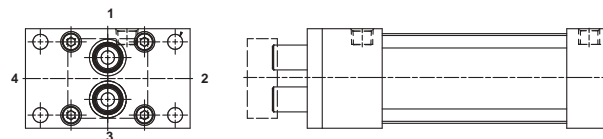
Bore	Eye bracket	Bore	Model	Type	Bore	Model	Type
1-1/2"		3/4" - 2-1/2"	CS8-2-04	Reed	2" - 4"	CS7-04	Reed
2"		3/4" - 2-1/2"	CS8-2-31	Solid state (PNP)	2" - 4"	CS7-31	Solid state (PNP)
2-1/2"		3/4" - 2-1/2"	CS8-2-32	Solid state (NPN)	2" - 4"	CS7-32	Solid state (NPN)

NFPA SERIES N NON-ROTATING CYLINDERS








1-1/8" to 4" bore size

Front Flange (MF1)

CUSHIONED



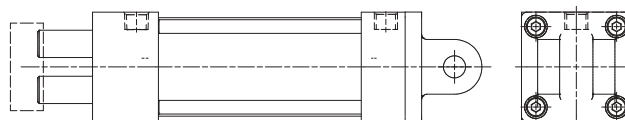
Model

Example Model Number	Example Model Number	Cylinder Bore Ø	Stroke Inches	Port size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Piston Seal kit
									
NC02A-E04-AMCMO	NC02A-N04-AMCMO	1-1/2	2	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-03
ND04A-E04-AMCMO	ND04A-N04-AMCMO	2	4	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-04
NE06A-E04-AMCMO	NE06A-N04-AMCMO	2-1/2	6	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-05
NF08A-E04-AMCMO	NF08A-N04-AMCMO	3-1/4	8	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-065
NG10A-E04-AMCMO	NG10A-N04-AMCMO	4	10	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-08








Accessories

Detachable Clevis (MP2)

CUSHIONED



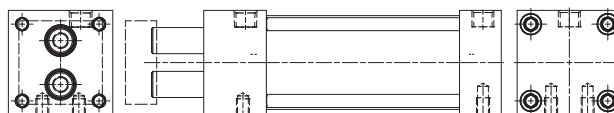
Model

Example Model Number	Example Model Number	Cylinder Bore Ø	Stroke Inches	Port size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Piston Seal kit
									
NC02A-E07-AMCMO	NC02A-N07-AMCMO	1-1/2	2	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-03
ND04A-E07-AMCMO	ND04A-N07-AMCMO	2	4	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-04
NE06A-E07-AMCMO	NE06A-N07-AMCMO	2-1/2	6	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-05
NF08A-E07-AMCMO	NF08A-N07-AMCMO	3-1/4	8	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-065
NG10A-E07-AMCMO	NG10A-N07-AMCMO	4	10	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-08








Accessories

Bottom Tapped (MS4)

CUSHIONED



Model

Example Model Number	Example Model Number	Cylinder Bore Ø	Stroke Inches	Port size NPT	Straight Fitting	90° Swivel Elbow fitting	Banjo Flow Control	Tube O.D.	Piston Seal kit
									
NC02A-E02-AMCMO	NC02A-N02-AMCMO	1-1/2	2	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-03
ND04A-E02-AMCMO	ND04A-N02-AMCMO	2	4	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-04
NE06A-E02-AMCMO	NE06A-N02-AMCMO	2-1/2	6	1/4	C24250428	C24470428	C2VA00428	1/4	NCSK-05
NF08A-E02-AMCMO	NF08A-N02-AMCMO	3-1/4	8	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-065
NG10A-E02-AMCMO	NG10A-N02-AMCMO	4	10	3/8	C24250638	C24470638	C2VA00638	3/8	NCSK-08

Accessories

ISOLINE™ 15552 CYLINDER, DOUBLE ACTING

DA/802000/M Ø 32 to 125 mm

- » Conforms to ISO 15552
- » High performance, adaptive cushioning system "ACS"
- » Extensive range of mountings

Technical Data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Standard:
Conforms to ISO 15552

Operation:
DA/802000/M double acting magnetic piston, adaptive cushioning

Operating pressure:
15 to 232 psig (1 to 16 bar)

Operating temperature:
-4°F to +176°F
(-20°C to +80°C) max.

Consult our Technical Service for use below +35°F (+2°C)



Materials

- Barrel: anodized aluminum
- End covers: pressure diecast aluminum
- Piston rod: 303 stainless steel
- Piston rod seals: polyurethane
- Piston seals: polyurethane
- 'O'-rings: nitrile rubber



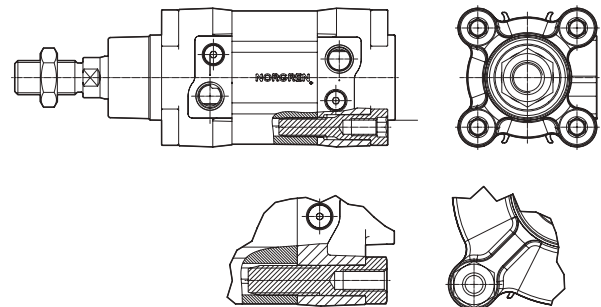
Option selector

★★★A/8★★★/★★★/★★★

Non-standard variants	Substitute
Standard	None
Low temperature version -40°C (-40°F) (ø 32 ... 125 mm) -30°C (-22°F) (ø 160 ... 320 mm)	L
High temperature version -150°C max. (302°F)	T
Standard	Substitute
Round barrel	None
Profile barrel	P
Piston rod material	Substitute
Stainless steel martensitic	R
Stainless steel austenitic	S
Hard chromium plated	C
Stainless steel austenitic & hard chromium plated	D
Cushioning	Substitute
"ACS" (ø 32 ... 125 mm)	O2
Standard (ø 160 ... 320 mm)	None
Cylinder ø (mm)	Substitute
032, 040, 050, 063, 080, 100, 125, 160, 200, 250, 320	
Variants ø 32 ... 320 mm (magnetic piston)	Substitute
Standard	M
Special wiper/seal	W2
Low friction	X2
Piston rod bellow	MG
Without cushion	MW
Without cushion, low friction	X4
Double ended piston rod	JM
Double ended piston rod, special wiper/seal	W4
Four-piston cylinder	MT
Non-rotating piston rod (internal)	N2
Extended piston rod	MU
A/802*/MU/EX/***/**	Extension (mm)
Extended piston rod, special wiper/seal	W6
A/802*/W6/EX/***/**	Extension (mm)

Strokes (mm)	Substitute
5 ... 2800	
Piston rod thread	Substitute
Male	None
Female	X
Variants ø 160 ... 320 mm (without magnetic piston)	Substitute
Standard	None
Special wiper/seal	W1
Low friction	X1
Piston rod bellow	G
Without cushion	W
Without cushion, low friction	X3
Double ended piston rod	J
Double ended piston rod, special wiper/seal	W3
Four-piston cylinder	IT
Extended piston rod	IU
A/8*/IU/EX/***/**	Extension (mm)
Extended piston rod, special wiper/seal	W5
A/8*/W5/EX/***/**	Extension (mm)

Note: If position is not required, disregard option position within part number e.g. RA/802100/M/EX/100. For combinations of cylinder variants consult our technical service. This option selector explains only the cylinder variants. Additional variants/options are not possible.








ISOLINE™ 15552 CYLINDER, DOUBLE ACTING

DA/802000/M Ø 32 to 125 mm






Model

Accessories



Example Model Number	Cylinder Bore Ø	Stroke mm	Port Size ISO G	Piston rod Ø	Straight fitting	Elbow fitting	Banjo flow control	Service kit
								
DA/802032/M/25	32	25	G1/4	12	C02250618	C02470618	COK510618	QA/8032/00
DA/802040/M/50	40	50	G1/4	16	C02250628	C02470628	COK510628	QA/8040/00
DA/802050/M/75	50	75	G1/4	20	C02250828	C02470828	COK510828	QA/8050/00
DA/802063/M/100	63	100	G3/8	20	C02250838	C02470838	COK510838	QA/8063/00
DA/802063/M/125	63	125	G3/8	20	C02250838	C02470838	COK510838	QA/8063/00
DA/802063/M/150	63	160	G3/8	20	C02250838	C02470838	COK510838	QA/8063/00
DA/802080/M/200	80	200	G3/8	25	C02251038	C02471038	COK511038	QA/8080/00
DA/802125/M/300	125	300	G1/2	32	C02251248	C02471248	COK511248	QA/8125/00

Accessories

Mounting kits

Bore	Eye bracket (hinge)	Rod clevis	Rod alignment coupler	Front/rear flange	Rear clevis
					
32	M/P19493	QM/8025/25	QM/8025/38	QA/8032/22	QA/8032/23
40	M/P19494	QM/8040/25	QM/8040/38	QA/8040/22	QA/8040/23
50	M/P19495	QM/8050/25	QM/8050/38	QA/8050/22	QA/8050/23
63	M/P19496	QM/8050/25	QM/8050/38	QA/8063/22	QA/8063/23
80	M/P19497	QM/8080/25	QM/8080/38	QA/8080/22	QA/8080/23
100	M/P19498	QM/8080/25	QM/8080/38	QA/8100/22	QA/8100/23
125	M/P19499	QM/8125/25	QM/8125/38	QM/8125/22	QM/8125/23

M/50 switches

Switch P/N	Cable Material	Type	Bracket model no.
			
M/50/LSU/*V	PVC	Reed LED	QM/27/2/1
M/50/EAN/*V	PVC	Solid State Sinking (NPN) LED	QM/27/2/1
M/50/EAP/*V	PVC	Solid State Sourcing (PNP) LED	QM/27/2/1

*Insert cable length 2m, 5m, 10m

Norgren Electric Actuation



Norgren offers a comprehensive electric actuator line that provides precise control of motion through both off the shelf and custom designs. The flexibility and options Norgren has to offer are ideal for any electric motion application.

Find the right solution from our wide range of robust, high speed products that are designed to move the heaviest of loads.



Features that make our electric actuators stand apart from the competition:

- > High precision steel reinforced arc belt power design
- > Accurate and repeatable positioning with the ability to handle offset loads
- > Drives that provide the highest speeds and longest strokes to achieve ultimate performance in various applications
- > One stop shop with our actuators, motors, drives and accessories for a complete package

ELION E/809000

Rod Style Electric Actuator

- » Ø32 ... 100 mm
- » Robust construction
- » Cylinder based on ISO 15552
- » Maintenance-free
- » Reliable performance
- » Long life
- » Servo motors
- » Different feedback systems available
- » Holding brake available
- » Drives available with EtherCAT, PROFINET, PROFIBUS, EtherNet/IP, DeviceNet & CANopen communications
- » Wide range of accessories

Technical Data

Function:
Actuator with ball screw;
with or without servo motor

Standard:
Based on ISO 15552
Cylinder diameters:
32, 40, 50, 63, 80, 100 mm

Strokes:
Available 100 ... 1500 mm
(short strokes < 100 mm
on request)

Speed:
max. 0.2 ... 1.6 m/s

Forces Fmax:
2.5 ... 30.4 kN (thrust force)

Motor data

Voltage:
400 VAC

Rated current:
0.7 ... 9 A

Power:
0.16 ... 3.3 kW

Drive data

Voltage:
400 VAC

Rated current:
3 ... 10.5 A

Output power:
0.75 ... 4.0 kW

Duty cycle:
100 %

Temperature

Actuator only:
0 ... 60 °C (32 ... 140 °F)

Ambient temperature:
Actuator:
0 ... 60 °C (32 ... 140 °F)
Motor:
0 ... 40 °C (32 ... 104 °F)

IP Protection rates:

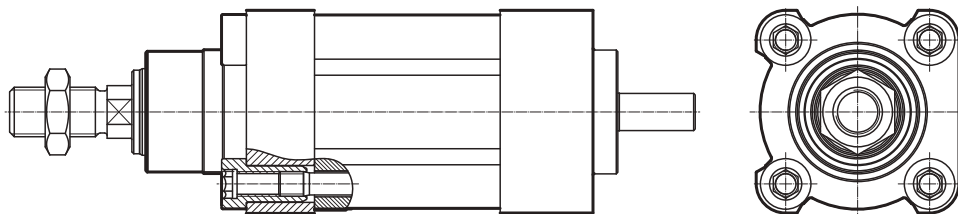
Actuator: IP40
Motor: IP65

Standard Materials:

Barrel: Anodized aluminum
End covers: Anodized aluminum
Piston rod: Stainless steel (austenitic)
Piston rod seals: PUR



→ Online at
norgren.com



Technical data

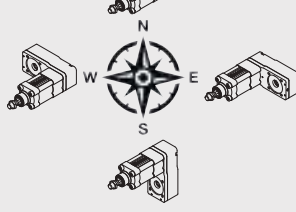
Cylinder Ø(mm)	32		40			50			63			80				100			
Spindle diameter (mm)	12		16			20			25			32				40			
Spindle pitch (mm)	5	10	5	10	16	5	10	20	5	10	25	5	10	20	32	5	10	20	40
Axial clearance Actuator (mm)	+0.02		+0.04			+0.04			+0.04			+0.04				+0.04			
Dynamic force C (N)	5000	5100	10100	7900		13100	9700	6800	14600	14500	7400	23400	26500	16800	11400	25400	44600	33800	22800
F max axial (N)	3000	2520	5200	4100	4200	8000	5500	3800	10150	10100	4750	20000	20000	11950	7750	24600	30400	22200	14450
Momentum torque max (Drive shaft) (Nm)	2.4	4.0	4.2	6.5	10.8	6.4	8.8	12.2	8.1	16.1	19.0	16.0	31.9	38.1	39.6	19.6	48.4	70.7	92.2
Orderstroke (mm)	100 ... 800		100 ... 800			100 ... 1000			100 ... 1200			100 ... 1500				100 ... 1500			
Available velocity with standard Norgren servo motor (m/s)	0.25	0.5	0.25	0.5	0.8	0.25	0.5	1.0	0.25	0.5	1.25	0.2	0.5	0.9	1.5	0.2	0.4	0.8	1.6
Max permissible velocity (m/s)	0.6	1.3	0.5	1.0	1.6	0.4	0.8	1.5	0.3	0.6	1.5	0.2	0.5	0.9	1.5	0.2	0.4	0.8	1.6
Max permissible rpm (1/min)	7690	7630	6470	6120	6000	4590	4660	4570	3610	3670	3640	2840	2830	2830	2820	2280	2380	2380	2370
Acceleration max (m/s ²)	10																		
Max. angle of rotation at the piston rod (°)	0.65		0.6			0.5			0.4			0.3				0.25			

ELION E/809000

Rod Style Electric Actuator

Cylinder variants

E/809****/****/****/****/****

Size Sub. 1	Ball Screw Sub. 2	Variants Sub. 3 Standard Piston rod bellows Piston rod extension Internal thread	Motor Kit Sub. 4 	Flange/Motor Sub. 5 Resolver Absolute (multi turn) Holding brake, resolver Holding brake, absolute (multi turn)	Stroke (mm) Sub. 7	Piston rod extension (mm) Sub. 8						
Ø32 032	12x5 05	M G U X	Actuator only, no coupling, no housing Actuator with coupling and housing for customer individual motor	A No motor	X X 07, 08, 09, *	100 ... 800	1 ... 200 (Use only for Variant "U" otherwise leave empty)					
			Axial kit	D No motor, flange □40; ØN=30; ØM=46 No motor, flange □55; ØN=40; ØM=63 Motor □55 (1.05 Nm)	X 1 X 2 E A B M N							
			Parallel kit - "North"	N No motor, flange □40; ØN=30; ØM=46 No motor, flange □55; ØN=40; ØM=63 Motor □55 (1.05 Nm)	X 1 X 2 E A B M N							
			Parallel kit - "East"	E No motor, flange □40; ØN=30; ØM=46 No motor, flange □55; ØN=40; ØM=63 Motor □55 (1.05 Nm)	X 1 X 2 E A B M N							
	12x10 10		Parallel kit - "South"	S No motor, flange □40; ØN=30; ØM=46 No motor, flange □55; ØN=40; ØM=63 Motor □55 (1.05 Nm)	X 1 X 2 E A B M N							
			Parallel kit - "West"	W No motor, flange □40; ØN=30; ØM=46 No motor, flange □55; ØN=40; ØM=63 Motor □55 (1.05 Nm)	X 1 X 2 E A B M N							
			Ø40 040	16x5 05	M G U X			Actuator only, no coupling, no housing Actuator with coupling and housing for customer individual motor	A No motor	X X 09, 12, 14, *	100 ... 800	1 ... 200 (Use only for Variant "U" otherwise leave empty)
								Axial kit	D No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	X 1 X 2 E A B M N J		
Parallel kit - "North"	N No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	X 1 X 2 E A B M N J										
Parallel kit - "East"	E No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	X 1 X 2 E A B M N J										
16x10 10	Parallel kit - "South"	S No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)		X 1 X 2 E A B M N J								
	Parallel kit - "West"	W No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)		X 1 X 2 E A B M N J								
	16x16 16	Parallel kit - "North"		N No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)		X 1 X 2 E A B M N J						
		Parallel kit - "East"		E No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)		X 1 X 2 E A B M N J						
Parallel kit - "South"		S No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	X 1 X 2 E A B M N J									
Parallel kit - "West"		W No motor, flange □55; ØN=40; ØM=63 No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	X 1 X 2 E A B M N J									

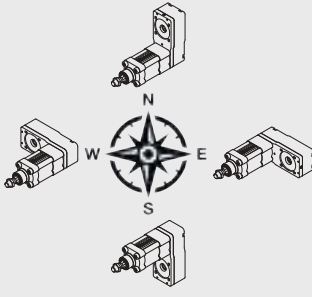
* For more versions please see data sheet

ELION E/809000

Rod Style Electric Actuator

Cylinder variants

E/809****/****/****/****/****

Size		Ball Screw	Variants	Motor Kit	Flange/Motor	Stroke (mm)	Piston rod extension (mm)	
Sub. 1	Sub. 2	Sub. 3	Sub. 4	Sub. 5	Sub. 6	Sub. 7	Sub. 8	
			Standard Piston rod bellows Piston rod extension Internal thread		Resolver Absolute (multi turn) Holding brake, resolver Holding brake, absolute (multi turn)			
Ø80	Ø80	M G U X		Actuator only, no coupling, no housing	A	X	100 ... 1500	1 ... 350 (Use only for Variant "U" otherwise leave empty)
				Actuator with coupling and housing for customer individual motor	B	X		
				Axial kit	D	X		
					N	R		
				Parallel kit - "North"	N	R		
					E	R		
				Parallel kit - "East"	E	R		
					S	R		
				Parallel kit - "South"	S	R		
					W	R		
				Parallel kit - "West"	W	R		
Ø100	100	M G U X		Actuator only, no coupling, no housing	A	X	100 ... 1500	1 ... 350 (Use only for Variant "U" otherwise leave empty)
				Actuator with coupling and housing for customer individual motor	B	X		
				Axial kit	D	X		
					N	R		
				Parallel kit - "North"	N	R		
					E	R		
				Parallel kit - "East"	E	R		
					S	R		
				Parallel kit - "South"	S	R		
					W	R		
				Parallel kit - "West"	W	R		



For further information, visit www.norgren.com and use the new improved search function. If you cannot see the option you require please contact us.

ELION E/149000

Rodless Style Ball Screw Electric Actuator

- » Ø48 ... 100 mm
- » Robust construction
- » High performance internal guiding
- » Reliable performance
- » Long life
- » Servo motors
- » Different feedback systems available
- » Holding brake available
- » Drives available with EtherCAT, PROFINET, PROFIBUS, EtherNet/IP, DeviceNet & CANopen communications

Technical Data

Function:
Actuator with ball screw;
with or without servo motor

Actuator size:
48, 60, 80, 100 mm

Strokes:
Available 100 ... 4100 mm
(short strokes < 100 mm
and > 2500 mm on request)

Speed:
max. 1.6 m/s

Forces F_{max}:
10150 N (thrust force)

Motor data

Voltage:
400 VAC

Rated current:
0.7 ... 9 A

Power:
0.16 ... 2.2 kW

Drive data
Voltage:
400 VAC

Rated current:
3 ... 10.5 A

Output power:
0.75 ... 4.0 kW

Duty cycle:
100 %

Temperature

Actuator only:

-20 ... 80 °C (-4 ... 176 °F)

Ambient temperature:

Actuator: -20 ... 80 °C (-4 ... 176 °F)

Motor: 0 ... 40 °C (32 ... 104 °F)

IP Protection rates:

Motor: IP65

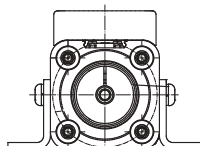
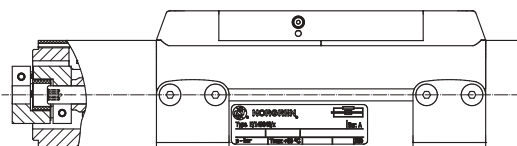
Standard Materials:

End covers: Anodized aluminum

Yoke, carriage, cover and barrel:

Anodized aluminum

Cover strip: PU



➔ Online at
norgren.com

Technical data

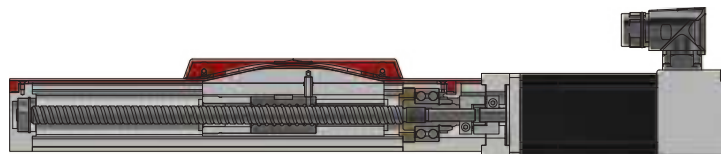
Actuator size □ (mm)	48		60			80			100		
Spindle diameter (mm)	12		16			20			25		
Spindle pitch (mm)	5	10	5	10	16	5	10	20	5	10	25
Axial clearance Actuator (mm)	+ 0.02		+ 0.04			+ 0.04			+ 0.04		
Dynamic force C (N)	5500	5100	10100	7900		13100	9700	6800	14600	14500	7400
F max axial (N)	3000	2520	5200	4100	4200	8000	5500	3800	10150	10100	4750
Momentum torque max (Drive shaft) (Nm)	2.4	4.0	4.2	6.5	10.8	6.4	8.8	12.2	8.1	16.1	19.0
Order stroke (mm)*	100 ... 1280		100 ... 2500			100 ... 2500			100 ... 2500**		
Available velocity with standard Norgren servo motor (m/s)	0.25	0.5	0.25	0.5	0.8	0.25	0.5	1.0	0.25	0.5	1.25
Max permissible velocity (m/s)	0.6	1.3	0.5	1.0	1.6	0.4	0.8	1.5	0.3	0.6	1.5
Max permissible rpm (1/min)	7690	7630	6470	6120	6000	4590	4660	4570	3610	3670	3640
Acceleration max (m/s ²)	10										

* Short strokes < 100 mm on request

** Long strokes > 2500 mm on request

Function

Norgren ELION provides a high performance ball screw actuator with servo motor. The actuator can easily be configured and ordered with the Norgren online tool: <https://www.norgren.com/uk/en/technical-support/configurators> or visit our landing page for more information: <https://www.norgren.com/uk/en/list/electric-actuators>



ELION E/149000

Rodless Style Ball Screw Electric Actuator

Actuator variants

E/149**/****/****/******

Size Sub. 1	Ball Screw Sub. 2		Spindle support Sub. 3				Motor Kit Sub. 4	Flange/Motor Sub. 5					Stroke (mm) Sub. 7					
			0	2	4	6		Sub. 6 Resolver Absolute (multi turn) Holding brake, resolver Holding brake, absolute (multi turn)										
□ 48 048	12x5	05	0	2	4		B	No Motor					X	X	100 ... 1280			
							C	No motor						08, 09, *				
	12x10	10					D	No motor, flange □55; ØN=40; ØM=63					X	1				
								Motor □55 (1.05 Nm)					E	A		B	M	N
□ 60 060	16x5	05	0	2	4	6	B	No Motor					X	X	100 ... 2500			
							C	No motor						09, 14, *				
	16x10	10					D	No motor, flange □55; ØN=40; ØM=63					X	1				
								No motor, flange □67; ØN=60; ØM=75						2				
	16x16	16						Motor □55 (1.05 Nm)					E	A		B	M	N
								Motor □67 (2.45 Nm)					J	A		B	M	N
□ 80 080	20x5	05	0	2	4	6	B	No Motor					X	X	100 ... 2500			
							C	No motor						14, *				
	20x10	10					D	No motor, flange □67; ØN=60; ØM=75					X	1				
								Motor □67 (2.45 Nm)					J	A		B	M	N
	20x20	20		Motor □67 (3.50 Nm)					N	A	B	M	N					
□ 100 100	25x5	05	0	2	4	6	B	No Motor					X	X	100 ... 2500			
							C	No motor						14, 19, *				
	25x10	10					D	No motor, flange □67; ØN=60; ØM=75					X	1				
								No motor, flange □89; ØN=80; ØM=100						2				
	25x25	25						Motor □67 (3.50 Nm)					N	A		B	M	N
								Motor □89 (6.90 Nm)					R	A		B	M	N

* = individual Actuator shaft Ø mm on request

ELION E/148000

Rodless Style Belt Drive Electric Actuator



- » Ø48 ... 100 mm
- » Robust construction
- » High performance internal guiding
- » Reliable performance
- » Long life
- » Servo motors
- » Different feedback systems available
- » Holding brake available
- » Drives available with EtherCAT, PROFINET, PROFIBUS, EtherNet/IP, DeviceNet & CANopen communications

Technical Data

Function:
Actuator with tooth belt;
with or without servo motor

Actuator size:
48, 60, 80, 100 mm

Strokes:
Available 100 ... 5500 mm
(short strokes < 100 mm
on request)

Speed:
max. 10m/s

Forces F_{max}:
1500 N (thrust force)

Motor data
Voltage:
400 VAC

Rated current:
0.7 ... 9 A

Power:
0.16 ... 2.2 kW

Drive data
Voltage:
400 VAC

Rated current:
3 ... 10.5 A

Output power:
0.75 ... 4.0 kW

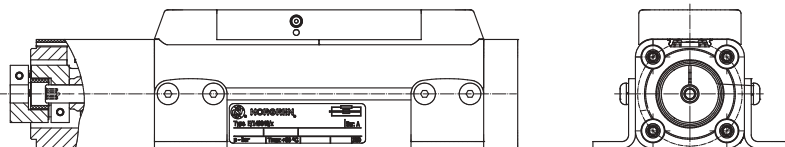
Duty cycle:
100 %

Temperature
Actuator only:
-20 ... 80 °C (-4 ... 176 °F)

Ambient temperature:
Actuator: -20 ... 80 °C (-4 ... 176 °F)
Motor: 0 ... 40 °C (32 ... 104 °F)

IP Protection rates:
Motor: IP65

Standard Materials:
End covers: Die cast aluminum
Yoke, carriage, cover and barrel:
Anodized aluminum
Cover strip: PA



→ Online at
norgren.com

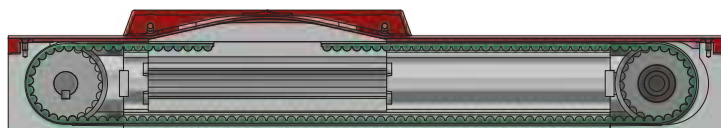
Technical data

Actuator size □ (mm)	48	60	80	100
Tooth belt width (mm)	12	16	20	25
Incremental stroke (mm)	5	5	4	4
Axial clearance (mm)	0.2	0.2	0.45	0.45
Available velocity with standard Norgren servo motor, ratio 1:1 (m/s)	6.0	7.8	10.0	10.0
Max permissible velocity (m/s)	10.0	10.0	10.0	10.0
Max permissible rpm (1/min)	5000	3870	2880	2270
F max axial (kN)	0.2	0.5	1.0	1.5
Max. torque (Drive shaft) (Nm)	3.8	12.3	33.1	63.0
Order stroke (mm)*	100 ... 3000	100 ... 5500	100 ... 5500	100 ... 5500
Acceleration max (m/s ²)	10			

*Strokes < 100 mm on request

Function

Norgren ELION provides a high performance tooth belt actuator with servo motor. The actuator can easily be configured and ordered with the Norgren online tool: <https://www.norgren.com/uk/en/technical-support/configurators> or visit our landing page for more information: <https://www.norgren.com/uk/en/list/electric-actuators>



ELION E/148000

Rodless Style Belt Drive Electric Actuator

Actuator variants

E/148***/***/****/*****

Size Sub. 1	Motor / Gearbox orientation Sub. 2		Gear ratio Sub. 3	Motor Kit Sub. 4	Flange/Motor Sub. 5					Stroke (mm) Sub. 7	
	Right	Left			without brake, resolver without brake, absolute (Multi turn)	with brake, resolver with brake, absolute (Multi turn)					
□48 048	A	B	no 01	Actuator without coupling with housing for customer individual motor	B	No Motor	X	X			100 ... 3000 (stroke increment 5 mm)
			1:4 04	Actuator with coupling with housing for customer individual motor	C	No motor	08, 09, 10*				
	With motor kit (see page 12)	D	1:3 03	No motor, flange □55; ØN=40; ØM=63	X	1					
			1:7 07	Motor □55 (1.05 Nm)	E	A	B	M	N		
□60 060	A	B	no 01	Actuator without coupling with housing for customer individual motor	B	No Motor	X	X			100 ... 5500 (stroke increment 5 mm)
			1:3 03	Actuator with coupling with housing for customer individual motor	C	No motor	09, 14*				
	With motor kit	D	1:5 05	No motor, flange □55; ØN=40; ØM=63	X	1					
			1:7 07	No motor, flange □67; ØN=60; ØM=75 Motor □55 (1.05 Nm) Motor □67 (2.45 Nm)	J	A	B	M	N		
□80 080	A	B	no 01	Actuator without coupling with housing for customer individual motor	B	No Motor	X	X			100 ... 5500 (stroke increment 4 mm)
			1:3 03	Actuator with coupling with housing for customer individual motor	C	No motor	14, 20*				
	With motor kit	D	1:5 05	No motor, flange □67; ØN=60; ØM=75	X	1					
			1:7 07	Motor □67 (2.45 Nm) Motor □67 (3.50 Nm)	N	A	B	M	N		
□100 100	A	B	no 01	Actuator without coupling with housing for customer individual motor	B	No Motor	X	X			100 ... 5500 (stroke increment 4 mm)
			1:3 03	Actuator with coupling with housing for customer individual motor	C	No motor	14, 19, 20*				
	With motor kit	D	1:5 05	No motor, flange □67; ØN=60; ØM=75	X	1					
			1:7 07	No motor, flange □89; ØN=80; ØM=100 Motor □67 (3.50 Nm) Motor □89 (6.90 Nm)	R	A	B	M	N		

* = individual Actuator shaft Ø mm on request

Compact Guided Electric Actuators



Norgren's compact guided electric actuators are designed with a similar size, construction, and body of a pneumatic actuator in order to accommodate tight spaces for a diverse range of applications. With an integrated hybrid step motor and lead screw design, this electric actuator family enables users the motion control flexibility demanded by today's machine designers.

→ Find out more
www.norgren.com

Features and benefits:

- > Designed to produce compact and low profile actuation for applications that require precise accuracy and repeatability
- > Integrated motor/screw combination minimizes actuator length for mounting into tight spaces
- > Multiple screw/lead configurations fit a wide variety of applications
- > Pre-configured transition plates for easy X/Y system development
- > Up to 260 lbs of thrust for high thrust force applications in a compact footprint
- > Infinitely variable control of speed, torque, and position
- > Three series: Extruded Flat Electric Thruster (EFET, EFE), Extruded Electric Thruster (EET), and Narrow Profile Electric Table (NPET)
- > EFET/EFE Series is ideal for high thrust force applications and features 6 profile sizes with multiple screw leads per profile, providing maximum design flexibility
- > EET Series is excellent for high side load applications and has extra long rod bearings for high radial load capacity
- > NPET Series is ideal for cartesian type and pick and place applications and has a recirculating ball linear rail for high moment load capabilities

ROUNDLINE® PLUS

STAINLESS STEEL CYLINDERS 5/16" TO 3" BORE SINGLE AND DOUBLE ACTING

- » Full range of bore sizes
- » All essential models
- » Optional Ecology seal

Technical Data

Medium:

Filtered, lubricated or non-lubricated, compressed air

Maximum Operating Pressure:

250 psig (17.2 bar)

Temperature Range*:

Standard Nitrile Seals:
-20° to 200°F (-29° to 93°C)
*With dew point of supply air less than air temperature below 35°F (2°C)

Lubrication:

All Roundline Plus cylinders are pre-lubricated during assembly with a PTFE based grease for non-lube service and long life.

Materials:

Cylinder Body:
304 Stainless Steel

Head and Cap:
Aluminum Alloy

Piston Rod:

Stainless steel in double rod cylinders, and 5/16", 7/16", and 9/16" bores. Chrome plated steel in all other bore sizes

Rod Bearing: Oil Impregnated Sintered Bronze

Piston: Aluminum Alloy or stainless steel

Rod & Piston Seals: Nitrile Pivot Bracket, Rod Clevis, Foot Bracket, Mounting Nut: Bright Zinc plated carbon steel



Options selector

RP 075 x 2.500 - DAN - PS

Series	
Roundline Plus	RP
Roundline Plus with Ecology seals*	*ERP
Bore Size	
5/16"	031
7/16"	043
9/16"	056
3/4" (E)	075
7/8"	087
1-1/16" (E)	106
1-1/4" (E)	125
1-1/2" (E)	150
1-3/4"	175
2" (E)	200
2-1/2" (E)	250
3" (E)	300

E - Available with Ecology Seals

Stroke	
Increments of 1/16" up to a maximum. See table	
Mounting Options	
Single Acting Nose	SAN
Single Acting Pivot	SAP
Single Acting Front Block	SBF
Single Acting Rear Block	SBR
Single Acting Front Trunnion	STF
Single Acting Rear Trunnion	STR
Single Acting Non-Rotating Nose*	NRN
Single Acting Non-Rotating Pivot*	NRP
Reverse Acting Nose	RAN
Reverse Acting Pivot	RAP
Reverse Acting Front Block	RAF
(available in 3/4", 1-1/16" & 1-1/2" only)	
Reverse Acting Rear Block	RAR
Double Acting Nose	DAN
Double Acting Pivot	DAP
Double Acting Double End Mount	DAD
Double Acting Front Block	DAF
Double Acting Rear Block	DAR
Double Acting Front Trunnion	DFT
Double Acting Rear Trunnion	DRT
Double Acting Double Rod End	DRD

*Non rotating rod material is non-chrome plated steel

Options	
Bumpers	UB
Alternate Port Location	PL()
Side Ported End Cap (DAN, SAN, and DAF models only, note length adder)	PC
Magnetic Piston	PS
Non-Adjustable cushions both ends	NB*
No Rod Thread	PR
No Pin	NP
Pivot Bushing (no pin)	PO
Non-Standard Male Thread	TM()
Thread extension over standard (specify additional length)	TX*()
Rod extension over standard (specify additional length)	RX*()
Stainless Steel piston rod (standard on certain models)	SS
FPM/High Temperature Seals	HT
Rod Wiper (not available with HT)	RW

*ERP, Ecology cylinders available on DAP, DAF, DAD, and DAN models only (add PC option length adder to DAN models)

Cylinders with Ecology seals come standard with non-adjustable cushions and does not require NB call out in model number.

* Male thread extension only. Consult factory for negative thread or rod extensions.







Maximum Stroke Lengths**		
Bore	Single & Reverse Acting	Double Acting
5/16"	4	12
7/16"-9/16"	12	36
3/4"-1-3/4"	12	36
2"	4	36
2-1/2"-3"	-	36

** Consult factory for longer stroke lengths.

ROUNDLINE® PLUS

STAINLESS STEEL CYLINDERS 5/16" TO 3" BORE SINGLE AND DOUBLE ACTING

Accessories

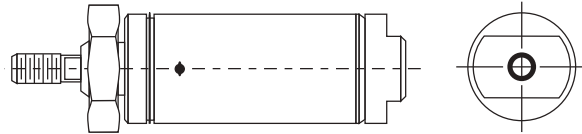
Bore	Pivot bracket	Rod Rod clevis	Foot bracket single acting	Foot bracket double acting	Mounting nut single acting	Mounting nut double acting
						
5/16	PB-0	RC-0	FB-0S	FB-0D	MN-0	MN-1
7/16	PB-1	RC-1	FB-1	FB-2	MN-1	MN-2
9/16	PB-1	RC-1	FB-2	FB-2	MN-2	MN-2
3/4	PB-2	RC-2	FB-3	FB-4	MN-3	MN-4
7/8	PB-2	RC-2	FB-4	FB-4	MN-4	MN-4
1-1/16	PB-2	RC-3	FB-4	FB-4	MN-4	MN-4
1-1/4	PB-2	RC-4	FB-5	FB-5	MN-5	MN-5
1-1/2	PB-3	RC-4	FB-5	FB-5	MN-5	MN-5
1-3/4	PB-4	RC-5	-	FB-5A	-	MN-5A
2	PB-4	RC-5	-	FB-6	-	MN-6
2-1/2	PB-4	RC-5	-	FB-7	-	MN-7
3	PB-5	RC-6	-	FB-8	-	MN-8

ROUNDLINE PLUS





STAINLESS STEEL CYLINDERS 5/16" TO 3" BORE SINGLE AND DOUBLE ACTING

Single Acting Spring Return

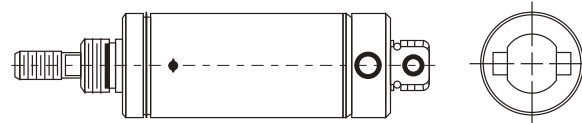
WITH NOSE MOUNT (SAN)



Model

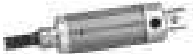



Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
							
RP031X0.500-SAN	5/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP043X1.000-SAN	7/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP056X1.000-SAN	9/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP075X1.500-SAN	3/4	1-1/2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP087X2.000-SAN	7/8	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP106X3.000-SAN	1-1/16	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP150X2.000-SAN	1-1/2	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4

WITH PIVOT MOUNT (SAP)



Models

Accessories





Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
							
RP031X0.500-SAP	5/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP043X1.000-SAP	7/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP056X1.500-SAP	9/16	1-1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RP075X2.000-SAP	3/4	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP087X3.000-SAP	7/8	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP106X4.000-SAP	1-1/16	4	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP125X4.000-SAP	1-1/4	4	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RP150X3.000-SAP	1-1/2	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4

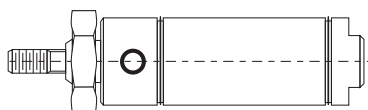
ROUNDLINE PLUS

STAINLESS STEEL CYLINDERS 5/16" TO 3" BORE SINGLE AND DOUBLE ACTING

Double Acting WITH NOSE MOUNT (DAN)

Models





Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
							
RP031X0.500-DAN	5/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP043X1.000-DAN	7/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP056X1.500-DAN	9/16	1-1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP075X0.500-DAN	3/4	1/2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP087X1.000-DAN	7/8	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP125X2.000-DAN	1-1/4	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP200X3.000-DAN	2	3	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP250X4.000-DAN	2-1/2	4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP300X5.000-DAN	3	5	3/8 NPT	C24250638	C24470638	C2VA00638	3/8"

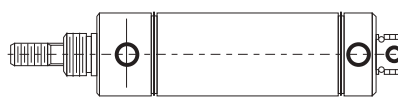


Accessories

WITH PIVOT MOUNT (DAP)

Models





Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
							
RP031X0.500-DAP	5/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP043X1.000-DAP	7/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP056X1.500-DAP	9/16	1-1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP075X0.500-DAP	3/4	1/2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP087X1.000-DAP	7/8	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP106X2.000-DAP	1-1/16	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP150X3.000-DAP	1-1/2	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP175X5.000-DAP	1-3/4	5	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP200X6.000-DAP	2	6	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP250X4.000-DAP	2-1/2	4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP300X5.000-DAP	3	5	3/8 NPT	C24250638	C24470638	C2VA00638	3/8"
RP300X6.000-DAP	3	6	3/8 NPT	C24250638	C24470638	C2VA00638	3/8"

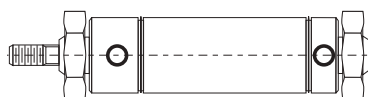


Accessories

WITH DOUBLE END MOUNT (DAD)

Models

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
							
RP031X0.500-DAD	5/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP043X1.000-DAD	7/16	1	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP056X1.500-DAD	9/16	1-1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4"
RP075X0.500-DAD	3/4	1/2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP106X1.000-DAD	1-1/16	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP150X2.000-DAD	1-1/2	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4"
RP175X3.000-DAD	1-3/4	3	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP200X4.000-DAD	2	4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP250X5.000-DAD	2-1/2	5	1/4 NPT	C24250628	C24470628	C2VA00628	3/8"
RP300X6.000-DAD	3	6	3/8 NPT	C24250638	C24470638	C2VA00638	3/8"



Accessories

RPD SERIES ROUNDLINE PLUS ACETAL RESIN CAPS

9/16" – 2" Bore

- » Double acting pneumatic cylinders
- » Acetal Resin end caps
- » Stainless Steel body
- » Suitable for washdown and corrosive environments

→ Online at norgren.com

Technical Data

Medium:
Filtered, lubricated or non-lubricated, compressed air

Maximum Operating Pressure:
125 psig (8.6 bar)

Temperature Range:
Standard Nitrile Seals:
32° to 160°F (0°C to 72°C)

Lubrication:
All RPD cylinders are pre-lubricated during assembly with a PTFE based grease for non-lube service and long life.

Materials:
Cylinder Body:
304 Series stainless steel
Head and Cap: Acetal Resin
Piston: Anodized aluminum alloy or stainless steel
Rod & Piston Seals: Nitrile
Mounting Accessories:
300 Series: Stainless steel



Accessories

Bore	SS Pivot bracket	SS Rod clevis	SS Foot bracket	SS Mounting nut
9/16"	DPB-056	DRC-056	RPDFB-056	52025-SS
3/4"	DPB-075	DRC-075	RPDFB-075	52027-SS
1-1/16"	DPB-076	DRC-106	RPDFB-075	52027-SS
1-1/2"	DPB-150	DRC-150	RPDFB-150	52030-SS
2"	DPB-200	DRC-200	RPDFB-200	52085-SS

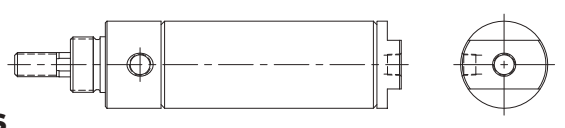
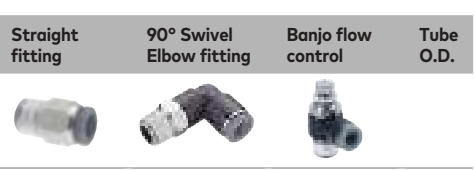
Double Acting

WITH NOSE MOUNT (DAN)

Models

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
RPD056X0.500-DAN	9/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RPD075X1.000-DAN	3/4	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD106X2.000-DAN	1-1/16	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD150X3.000-DAN	1-1/2	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD200X4.000-DAN	2	4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8

Accessories

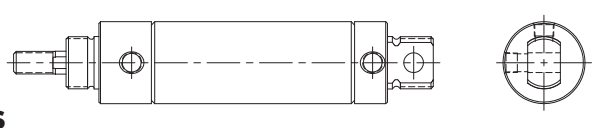
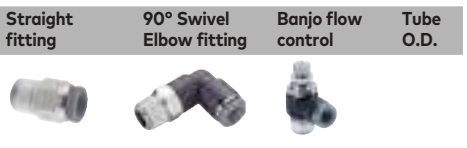


PIVOT MOUNT (DAD)

Models

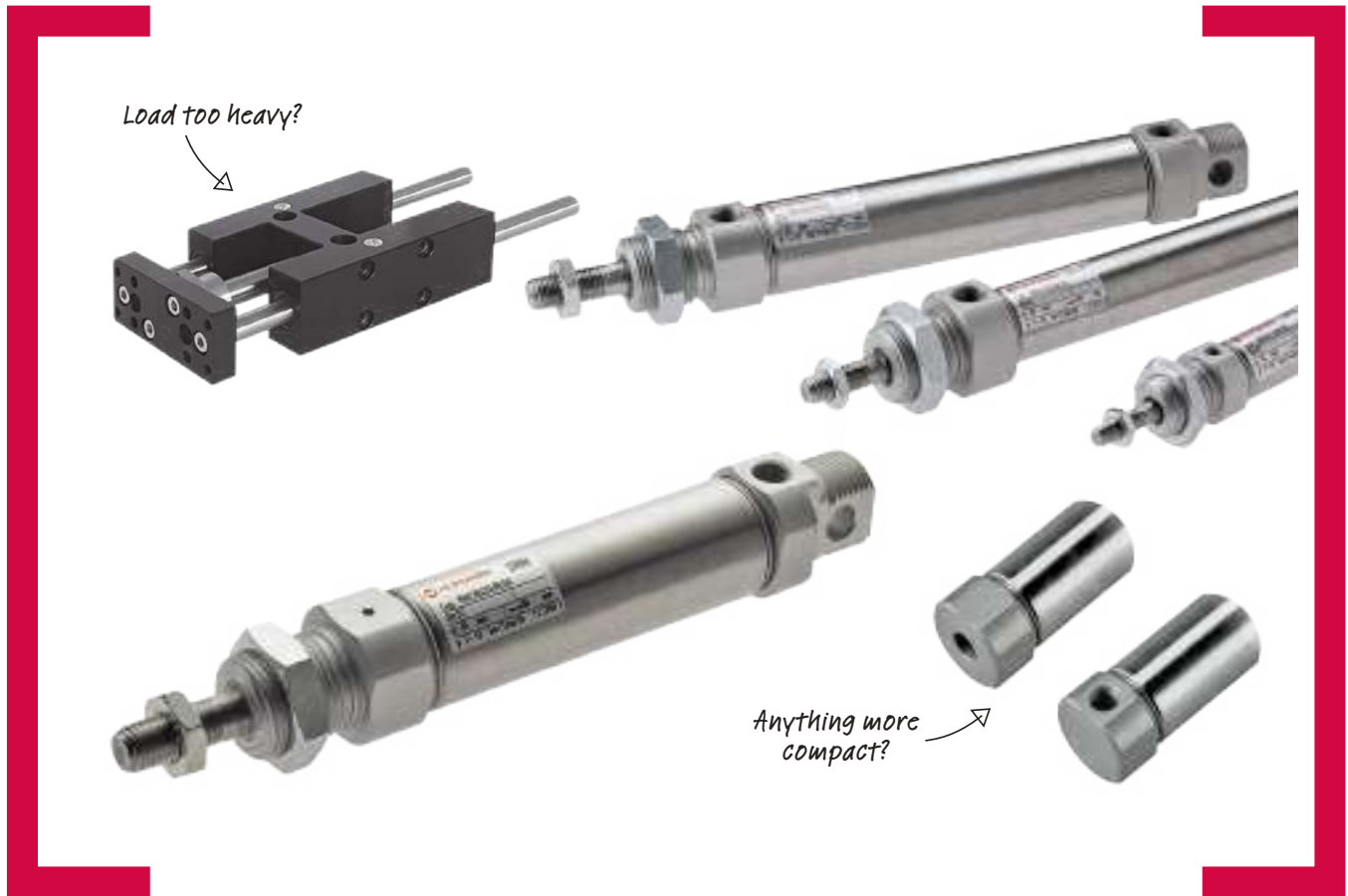
Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
RPD056X0.500-DAD	9/16	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
RPD075X1.000-DAD	3/4	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD106X2.000-DAD	1-1/16	2	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD150X3.000-DAD	1-1/2	3	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
RPD200X4.000-DAD	2	4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8

Accessories



ISO Roundline

Cylinders



When applying pneumatic actuators to lighter duty, lower force applications, many machine builders tend to select a simple "roundline" product. The most common of these are actuators that conform to ISO6432, a dimensional standard ensuring interchangeability between manufacturers.

→ Find out more
www.norgren.com

Features that make the Norgren range of ISO roundline cylinders stand apart from the competition:

- > We use a "Z" type low friction seal to support both low and high speed applications with operating life up to 10 million cycles—one product applied to all manner of applications, with reduced maintenance scheduling, downtime and therefore cost of ownership
- > If you're looking for a more specialized and cost-effective solution, choose from double ended or non-rotating piston rods, add a rod lock, select different end-cap styles to save space, add a guide block to improve load capacity, or fit high temperature seals
- > The standard actuator is fully non-corrodible in standard applications. For more arduous environments, you can choose a stainless version, reducing the need for more costly modification to machine functions
- > Uses the standard Norgren M/50 series switch (reed or solid state) as fitted to virtually the entire Norgren actuator range, reducing expensive spares stockholding to a minimum and ensuring total familiarity across all types of actuator

F-SERIES PLUS

Double Acting Ø 9/16" to 3"

- » Compact design
- » High quality components
- » Dependable service, and long life

Technical Data

Medium:
Filtered, lubricated or non-lubricated, compressed air

Operating Pressure:
200 psig (13.6 Bar) Max.

Temperature Range:
Standard Nitrile seals-
-40°F to 200°F (-40°C to 93°C)
*With dew point of supply air less than air temperature below 35°F (2°C).

Lubrication:
All F-Series Plus cylinders are prelubricated at the time of assembly with a PTFE based grease, for non-lube service and long life.

Side Loading:
Cylinders are specifically designed to push and pull. Side loading and misalignment of the piston rod should be avoided to ensure maximum operating performance and life.

Materials:
Cylinder Body: 304 Stainless Steel
Head and Cap:
Clear Anodized Aluminum Alloy
Piston Rod: 303 Stainless Steel
Rod Bearing: Oil Impregnated Bronze
Piston: Aluminum Alloy
Rod & Piston seals: Buna-N

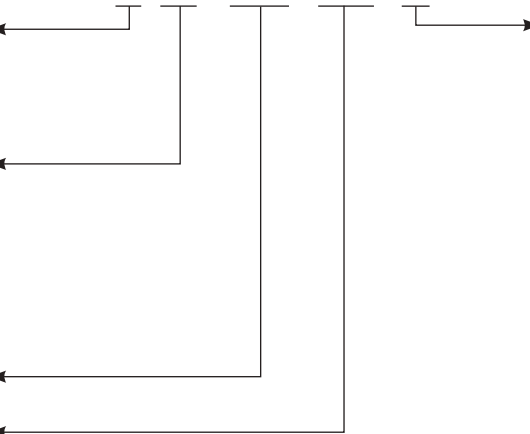


Online at norgren.com

Options selector

Series	Substitute
Single Rod end	FP
Double Rod end	FPD
Spring Extend	FPC
Spring Retract	FPR
Bore	Substitute
9/16"	056
3/4"	075
1-1/16"	106
1-1/2"	150
2"	200
2-1/2"	250
3"	300
Stroke	Substitute
Increments of 1/8"	
Mounting Options	Substitute
*Screw Clearance Holes Front	SCF
*Screw Clearance Holes Rear	SCR
*Screw Clearance Holes Both ends	SCB
Basic Model (std. c'bored mtg. holes)	BAM
**Front Trunnion	TMF
**Rear Trunnion	TMR
**Trunnion both ends	TMB
Pivot Mount	PTM
Threaded mounting holes Front	THF
Threaded mounting holes Rear	THC
Threaded mounting holes Both ends	THB
***Nose Mount	NMT

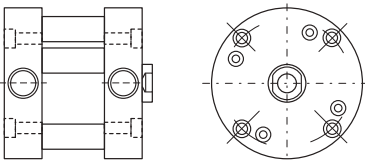
FP 106 x 2.375 - PTM - PS



Options	Substitute
Bumper both ends (not avail. with HT) ¹	UB
Bumper Head (not avail. with HT) ¹	UH
Bumper Cap (not avail. with HT) ¹	UC
Non-Standard Female Thread**	FT()
Heavy Duty Rear End Cap ²	HD
Alternate Port Location	PL()
Low Friction Seals ²	LF
Magnetic Piston ²	PS
Switch Rail and Position (switches ordered separately)	M1,M2, M3,M4
No Rod Thread	PR
Non-Standard Male Thread	TM()
Thread Extension over standard (specify additional length) ³	TX()
Rod Extension over standard (specify additional length) ³	RX()
Stainless Steel Fasteners (125 PSI Max)	SF
High Temperature Seals ⁴	**HT
Rod Wiper	RW

* Screw clearance to allow bolt head to pass through—no counter bores
** Not available on 9/16" bore
*** Available in FP, FPC, and FPR.
Includes a heavy duty end cap and rod wiper.

¹ Stroke is reduced by .03" per bumper. Bumpers are rated to 150°F
² Overall length of cylinder may increase with this option.
³ Consult factory for negative thread or rod extensions.
⁴ Not available in single or reverse acting models.



Models

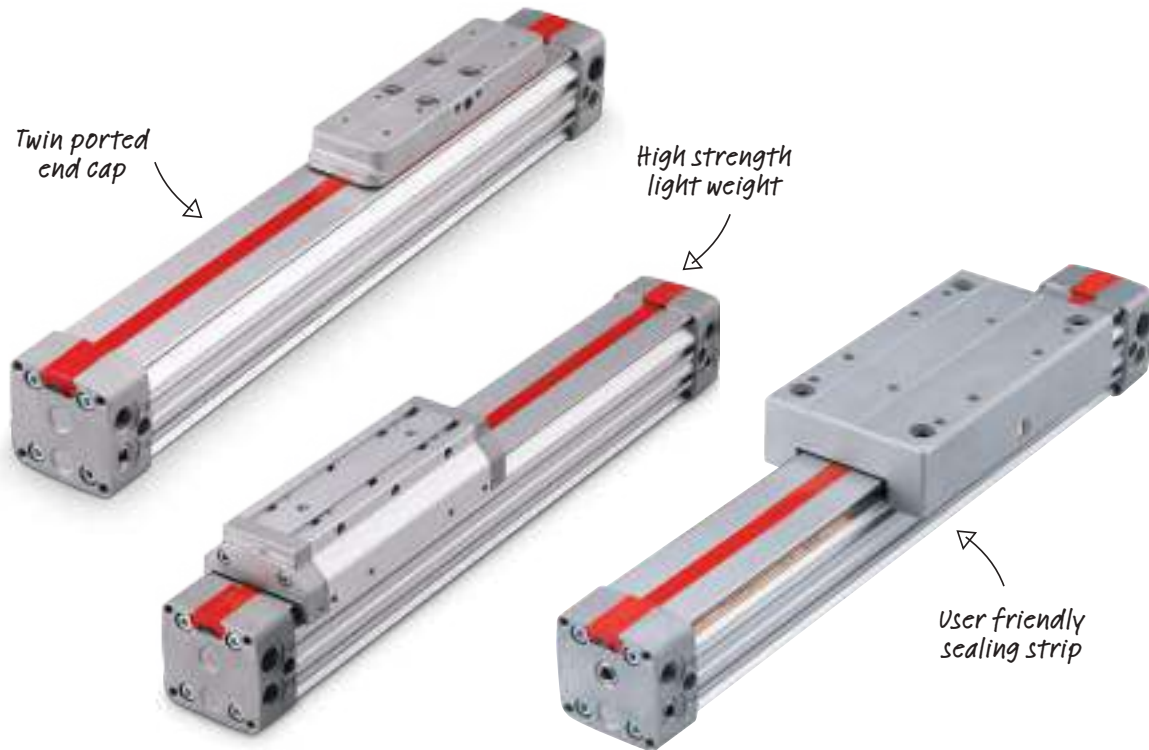
Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Tube O.D.
FP056X0.250-BAM	9/16	1/4	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
FP075X0.500-BAM	3/4	1/2	10-32 UNF	C24250410	C24470410	C2VA00410	1/4
FP106X0.750-BAM	1-1/16	3/4	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
FP150X1.000-BAM	1-1/2	1	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
FP200X1.250-BAM	2	1-1/4	1/8 NPT	C24250418	C24470418	C2VA00418	1/4
FP250X1.500-BAM	2-1/2	1-1/2	1/4 NPT	C24250418	C24470418	C2VA00418	1/4
FP300X1.750-BAM	3	1-3/4	1/4 NPT	C24250628	C24470628	C2VA00628	3/8

Accessories



Lintra® Plus

Range



Our rodless actuator range, known generally by the "Lintra" (LINear TRANSPORTer) brand has, over the last 25 years, developed from the original C/45000 to the current C/146000 "Lintra® Plus" series.

This range is one of the widest and most comprehensive rodless ranges available. Still unique are the integrated guides housed in the main extrusion and the user-friendly sealing strip.

The latest version also has slots to take the standard M/50 series switch, along with grooves which accept industry-standard aluminum machine building systems.

- > Three basic versions, covering light to heavy duty applications, all based around the same high strength, low weight aluminum profile and identical internal parts. This enables consistency of design across all machine functions, reduced spare parts holding and ease of maintenance
- > Quality, long-life sealing system with unique zip action on seal/cover strip and protection system preventing dust ingress. Extremely low static leakage values when in use – offers responsive, reliable operation up to 3,700 miles of travel, and low costs of ownership
- > Improved version (C/146000) is totally interchangeable with previous C/46000 model, with lower weight, greater load capacity, improved end caps and carriage design, and improved sealing performance now with added dust protection to meet ATEX requirements. Ongoing product development means that existing machine life cycles can be extended without compromise on expensive conversions or increased maintenance schedules

→ Find out more
www.norgren.com

LINTRA PLUS

C/146000 Ø 25 to 63 mm

- » Lightweight design extrusion with universal mounting grooves
- » Proven and patented sealing system
- » Dust protection as standard
- » Interchangeability with series C/46000

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting with adjustable cushioning and magnetic piston

Operating pressure:

14.5 to 116 psi (1 to 8 bar)

Operating temperature:

-22°F to 176°F (-30°C to +80°C) max.

(consult our Technical Service for use below 36°F [+2°C])

Cylinder diameter:

25, 32, 40, 50, 63 mm

Materials:

End covers: anodized aluminum

Yoke: anodized aluminum

Carriage, closer & cover: aluminum diecast

Guiding bridge and profile barrel: anodized aluminum

Seal strip, wiper and piston seal: polyurethane

Cover strip: polyamide

Other seals: nitrile rubber



➔ Online at norgren.com

Options selector

C / 146 ★ ★ ★ / MC / ★ ★ ★ ★

Ported models	Substitute
NPT ports (Ø 20 to 80 mm)	C
Metric ports (Ø 16 to 80 mm)	M
Guiding system	Substitute
Internal	0
External	1
Roller	2
Cylinder Ø (mm)	Substitute
16	16
20	20
25	25
32	32
40	40
50	50
63	63
80	80

Strokes (on request)	
Provide in Inches	C version
Provide in Metric	M version
Options (magnetic piston) STD.	Substitute
Magnetic piston (standard on 16, 20, and 80 mm bores)	M
Alternative ports (standard 25, 32, 40, 50, 63 mm bores)	MC ¹
Active brake (25 to 63 mm bores)	L3
Passive brake (25 to 63 mm bores)	L4
With added caged ball linear motion guide	PM [†]
With linear position sensor (32 to 63 mm bores)	F1
Double carriages *	MD**

Note: Disregard option positions not used.
For combinations of cylinder variants consult our Technical Service.
This options selector explains only the cylinder variants.
Additional variants/options are not possible.

* For C/146100 & C/146200 only
** MD option available in 1461** External and 1462** Roller guided carriage



¹ Not available on 16, 20, 80 mm bores.
[†] Order PM option as 1462**

Mounts

Bore	Foot mounts	Center support	Groove key for guided carriage	Groove key for profile barrel
25	QM/146025/21	QM/146025/32	M/P74065	M/P74065
32	QM/146032/21	QM/146032/32	M/P74065	M/P74065
40	QM/146040/21	QM/146040/32	M/P74066	M/P74065
50	QM/146050/21	QM/146050/32	M/P41858	M/P74065
63	QM/146063/21	QM/146063/32	M/P41858	M/P74065

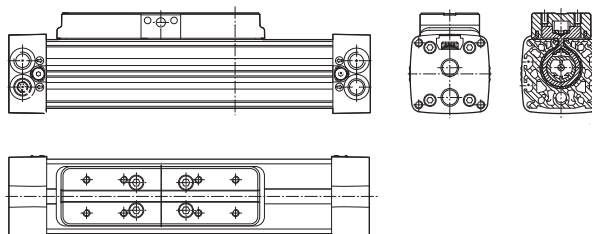
M/50 switches*

Switch P/N	Cable Material	Type
M/50/LSU/*V	PVC	Reed LED
M/50/EAN/*V	PVC	Solid State Sinking (NPN) LED
M/50/EAP/*V	PVC	Solid State Sourcing (PNP) LED

*Insert cable length 2m, 5m, 10m

LINTRA PLUS

C/146000 Ø 25 to 63 mm








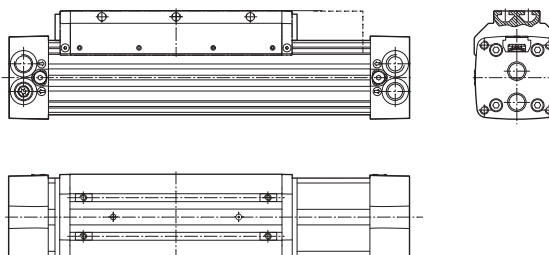
Internally guided, magnetic, adjustable cushions

C/146000

Models

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Service kit
	25	6	1/8				
C/146025/MC/42.000	25	42	1/8	C24250418	C24470418	C2VA00418	QA/146025/88/3000
C/146040/MC/12.000	40	12	1/4	C24250628	C24470628	C2VA00628	QA/146040/88/1000
C/146040/MC/48.000	40	48	1/4	C24250628	C24470628	C2VA00628	QA/146040/88/3000
C/146050/MC/18.000	50	18	3/8	C24250638	C24470638	C2VA00638	QA/146050/88/1000
C/146050/MC/42.000	50	42	3/8	C24250638	C24470638	C2VA00638	QA/146050/88/3000
C/146063/MC/24.000	63	24	1/2	C24250748	C24470748	C2VA00748	QA/146063/88/1000
C/146063/MC/30.000	63	30	1/2	C24250748	C24470748	C2VA00748	QA/146063/88/1000
C/146063/MC/42.000	63	42	1/2	C24250748	C24470748	C2VA00748	QA/146063/88/3000








Externally guided, magnetic, adjustable cushions

C/146100

Models

Accessories

Example Model Number	Cylinder Bore Ø	Stroke inches	Port Size NPT	Straight fitting	90° Swivel Elbow fitting	Banjo flow control	Service kit
	25	6	1/8				
C/146125/MC/42.000	25	42	1/8	C24250418	C24470418	C2VA00418	QA/146025/88/3000
C/146140/MC/12.000	40	12	1/4	C24250628	C24470628	C2VA00628	QA/146040/88/1000
C/146140/MC/48.000	40	48	1/4	C24250628	C24470628	C2VA00628	QA/146040/88/3000
C/146150/MC/18.000	50	18	3/8	C24250638	C24470638	C2VA00638	QA/146050/88/1000
C/146150/MC/42.000	50	42	3/8	C24250638	C24470638	C2VA00638	QA/146050/88/3000
C/146163/MC/24.000	63	24	1/2	C24250748	C24470748	C2VA00748	QA/146063/88/1000
C/146163/MC/48.000	63	48	1/2	C24250748	C24470748	C2VA00748	QA/146063/88/3000

MAGNETICALLY OPERATED SWITCHES

- » Magnetically operated, non-contact sensing system.
- » One or more switches may be mounted to provide an indication of piston position or to control or initiate any sequence function.
- » Adjustable mounting brackets allow for switches to be securely positioned anywhere along the range of piston travel.
- » LED indicator light facilitates installation and troubleshooting.



→ Online at norgren.com



Switches for A Series, and Series N Cylinders



Switch Model	CS8-2-04* Reed	CS8-2-31* Solid State (PNP)	CS8-2-32* Solid State (NPN)
Bore Sizes	3/4" thru 2-1/2"	3/4" thru 2-1/2"	3/4" thru 2-1/2"
Switch Type	Reed Switch, *MOV & Light	Solid State & Light, Sourcing PNP	Solid State & Light, Sinking NPN
Function	SPST Normally Open	Normally Open	Normally Open
Switching Voltage	5-120 VDC/VAC/ 50/60 Hz	6-24 VDC	6-24 VDC
Switching Current	.5 Amp Max/.005 Amp Min	.5 Amp Max	.5 Amp Max
Switching Power	10 VA	12 Watts Max	12 Watts Max
Max Voltage Drop	3.5 Volts	.5 Volts	.5 Volts
Magnetic Sensitivity	85 Gauss	85 Gauss	85 Gauss
Enclosure Classification	NEMA 6 & CSA Approved	NEMA 6 & CSA Approved	NEMA 6 & CSA Approved
Temperature Range	-22°F to +176°F	-22°F to +176°F	-22°F to +176°F

Switch Model	CS7-04* Reed	CS7-31* Solid State (PNP)	CS7-32* Solid State (NPN)
Bore Sizes	2" thru 6"	2" thru 6"	2" thru 6"
Switch Type	Reed Switch, *MOV & Light	Solid State & Light, Sourcing PNP	Solid State & Light, Sinking NPN
Function	Normally Open	Normally Open	Normally Open
Switching Voltage	5-240 VDC/VAC/ 50/60 Hz	6-24 VDC	6-24 VDC
Switching Current	1 Amp Max	1 Amp Max	1 Amp Max
Switching Power	30 Watts Max	24 Watts Max	24 Watts Max
Max Voltage Drop	3 Volts	.5 Volts	.5 Volts
Magnetic Sensitivity	85 Gauss	85 Gauss	85 Gauss
Enclosure Classification	NEMA 6 & CSA Approved	NEMA 6 & CSA Approved	NEMA 6 & CSA Approved
Temperature Range	-22°F to +176°F	-22°F to +176°F	-22°F to +176°F

* All switches in this series include mounting bracket.



Switches for DA/802000, PDA/802000, and C/146000 Series Cylinders

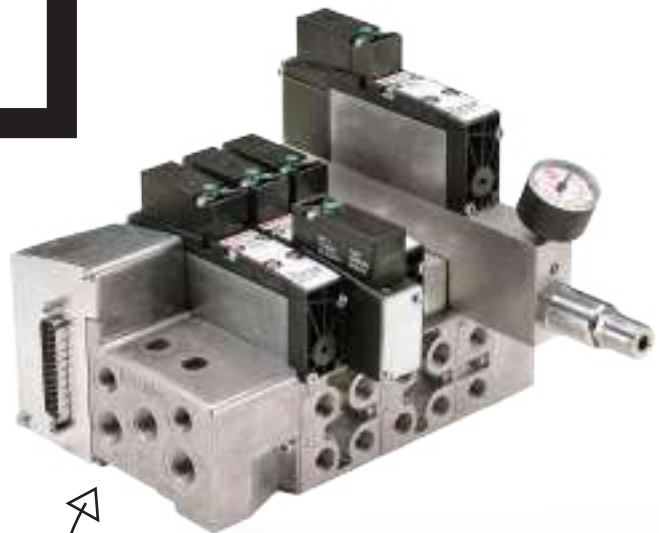
Switch P/N	Cable material	Type	Wire connection	Function	Voltage	Switching current	Switching power	Contact resistance	Operating temperature	Protection rating	Bracket*
											
M/50/LSU/**V	PVC	Reed LED	2 Wire	Normally Open	10-240 VAC 10-170 VDC	180 mA	10 W	150m Ohm	-20°C to +80°C	IP66 (DIN 40050)	QM/27/2/1
M/50/EAN/**V	PVC	Solid state sinking (NPN) LED	3 Wire	Normally Open	10-30 VDC	150 mA	4.5 W	N/A	-20°C to +80°C	IP67 (DIN 40050)	QM/27/2/1
M/50/EAP/**V	PVC	Solid state, sourcing, (PNP) LED	3 Wire	Normally Open	10-30 VDC	150 mA	4.5 W	N/A	-20°C to +80°C	IP67 (DIN 40050)	QM/27/2/1

** Insert cable length 2, 5, or 10 meters

* Bracket needed for DA/8000 Series only

[Valves]

An unmatched, state-of-the-art lineup of pneumatic and fluid control valves for any application. Norgren offers high-flow, compact valves used in multi-industry solutions. From Valve Manifolds to Solenoid and Air Pilot Valves to Manual/Mechanical Valves to Safety Valves to Fluid Control Valves, we have a comprehensive range to meet demanding applications.



*Fieldbus
expandable*



High flow rate



High speed









*Durable and
lightweight*

FAST FIND GUIDE

Please note: These products represent only part of the Norgren valves range. If you can't see the option you require please contact us.



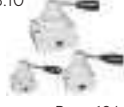
Norgren Manifold Valves

<p>VR10/15 2x3/2, 5/2 & 5/3</p>  <p>Page 50</p>	<p>VS18 Plug-in, ISO 15402-2 2x3/2, 5/2 & 5/3 1/8" & 1/4" Cv up to 0.66</p>  <p>Page 54</p>	<p>VS26 Plug-in, ISO 15402-2 2x3/2, 5/2 & 5/3 1/4" & 3/8" Cv up to 1.37</p>  <p>Page 60</p>	<p>V40/V41 Non Plug-in, ISO 15402-1 2x3/2, 5/2 & 5/3 1/8" & 1/4" Cv up to 0.66</p>  <p>Page 66</p>	<p>V44/V45 Non Plug-in, ISO 15402-1 2x3/2, 5/2 & 5/3 1/4" & 3/8" Cv up to 1.37</p>  <p>Page 70</p>	<p>ISO Star Non Plug-in, ISO 5599/1 5/2 & 5/3 1/4" & 3/8" Cv up to 4.40</p>  <p>Page 74</p>
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Norgren Solenoid and Air Pilot Valves

<p>V60-V62 3/2, 5/2 & 5/3 1/8", 1/4", 3/8" Cv up to 2.60 145 psi</p>  <p>Page 78</p>	<p>V50 to V53 3/2, 5/2 & 5/3 1/8", 1/4", 3/8", 1/2" Cv up to 2.48 116 psi</p>  <p>Page 85</p>	<p>Nugget 200 3/2, 5/2 & 5/3 1/4" & 3/8" Cv up to 1.67 150 psi</p>  <p>Page 90</p>	<p>Nugget 500 5/2 & 5/3 1/2" Cv up to 5.00 150 psi</p>  <p>Page 93</p>	<p>Prospector Poppet 2/2, 3/2 & 4/2 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2" Cv up to 44,80 150 psi (Solenoid) 300 psi (Air Pilot)</p>  <p>Page 95</p>
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Norgren Manual and Mechanical Valves

<p>Super X 3/2, 5/2 & 5/3 1/8" & 1/4" Cv up to 0.98 145 psi</p>  <p>Page 98</p>	<p>Nugget 200 3/2, 5/2 & 5/3 1/8", 1/4" & 1/2" Cv up to 1.67 150 psi</p>  <p>Page 102</p>	<p>VHLA 4/2 & 4/3 1/4", 3/8" & 1/2" Cv up to 3.10 140 psi</p>  <p>Page 106</p>
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Norgren Lockout Valves

<p>C00 3/2 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2" Cv up to 25.3 300 psi</p>  <p>Page 107</p>
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Norgren Proportional & Pressure Control valves

<p>VP10 Electroinc Pressure Regulator 0-10V or 4-20Ma 1/4" Up to 10°cfm 145 psi</p>  <p>Page 108</p>	<p>VP50 Proportional 0-10V or 4-20Ma 1/4" Up to 50°cfm 200 psi</p>  <p>Page 109</p>	<p>VP51 Programmable Proportional 0-10V or 4-20Ma 1/4" Up to 50°cfm 200 psi</p>  <p>Page 114</p>
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FAST FIND GUIDE

Please note: These products represent only part of the Norgren valves range. If you can't see the option you require please contact us.

Norgren Drain Valves

Electronic Drain Valves

3/2
1/4" & 1/2"
115 VAC
230 VAC
300 psi



Page 111

Norgren Solenoid Valves

KIP Series 1 Solenoid Valves

2 and 3 way,
1/8" NPT
-4°F to 104°F



Page 112

KIP Series 2 Solenoid Valves

2 and 3 way,
1/8" NPT
-4°F to 104°F



Page 113

KIP Series 3 Solenoid Valves

2 and 3 way,
1/4" NPT
-4°F to 104°F



Page 115

KIP Series 6 Solenoid Valves

2 and 3 way,
1/4" NPT
-4°F to 104°F



Page 117

KIP Series Q2 Quick-Connect Valves

2 way
NSF approved



Page 119

Norgren Valves

Series 82410 Pilot Operated valves

2 way, 1/4" to 1" NPT,
Brass and Buna materials



Page 120

Series 82740 Pilot Operated valves

2 way, 1/4" to 1" NPT,
Stainless steel and
Fluorocarbon
materials



Page 121

Series 82640 Direct lift valves

2 way, 1/4" to 1" NPT,
Brass and Buna materials



Page 122

Series 84490 Direct lift valves

2 way, 1/4" to 1" NPT,
Stainless steel and
Fluorocarbon
materials



Page 123

Series 82410 Explosion Proof

2/2, 3/8" to 1" NPT,
Orifice



Page 124

Series 82740 Explosion Proof

2/2, 3/8" to 1" NPT,
Orifice



Page 125

Series 82640 Explosion Proof

2/2, 3/8" to 1" NPT,
Orifice



Page 126

Series 84490 Explosion Proof

2/2, 3/8" to 1" NPT,
Orifice



Page 127

Herion® Valves

263607

5/2
1/4"
Cv up to 1.40
150 psi



Page 128

97100

3/2
1/4"
Cv up to 0.75
116 psi



Page 153

Xsz Safety Valves

Redundant 3/2
1/4", 1/2", 3/4", 1", 1-1/2"
Cv up to 33.00
up to 145 psi



Page 154

Maxseal® Stainless Steel Valves

ICO3S

Direct Acting
3/2
1/4" & 1/2"
174 psi



Page 132

ICO4S

Direct Acting
3/2
1/4"
290 psi



Page 133

QEV

Quick Exhaust
3/2
1/4", 3/8" & 1/2"
174 psi



Page 134

VR SERIES VALVE MANIFOLDS

2 x 3/2, 5/2 or 5/3

- » Vertical or Horizontal 24V DC Multipole
- » Industrial Ethernet and IO-Link
- » 10/15mm Valve Manifolds
- » Modular system offering a wide range of configuration options
- » LED indicator of solenoid function
- » No restriction in installation
- » Up to 24 solenoids
- » Easy to replace valves and fittings
- » IP40 or IP65 protection

➔ Online at norgren.com

Technical Data

Medium:
Compressed air, 40 µm filtered, lubricated or non-lubricated

Operation:
Dynamic softseal spool valve, solenoid pilot operated

Flow:
VR10
Function l/min Cv Kv
5/2 220 0.22 0.20
5/3 270 0.27 0.24
2 x 3/2 220 0.22 0.20

VR15
Function l/min Cv Kv
5/2 520 0.53 0.47
5/3 590 0.60 0.54
2 x 3/2 460 0.47 0.42

Mounting:
Sub-base

Ports 1, 3 & 5 (P,E):
VR10: PIF 8 mm, 5/16"
VR15: PIF 10 mm, 3/8"

Ports 2 & 4 (A,B):
VR10: PIF 4 mm, 6 mm, 5/32", 1/4"
VR15: PIF 4 mm, 6 mm, 8 mm, 5/32", 1/4", 5/16"

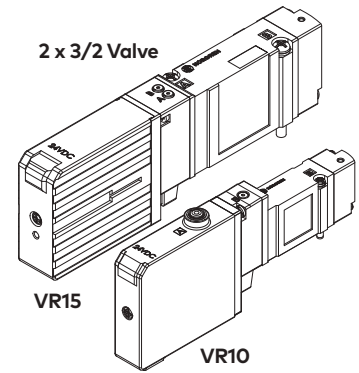
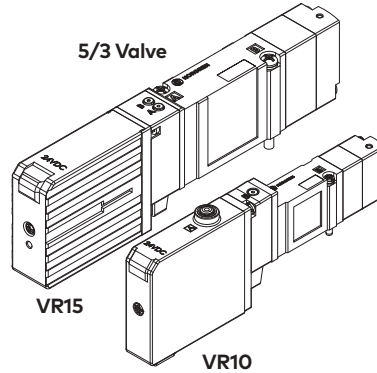
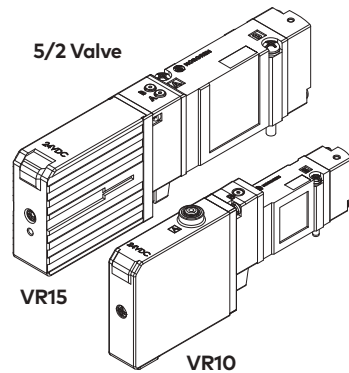
Operating pressure:
Maximum pressure 101 psi (7 bar).
Details of minimum and maximum pilot pressure see overleaf

Media/Ambient temperature:
+23 ... 122°F (-5 ... +50°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:
Body: ZnDC and ADC
Spool: Aluminium
Seal: NBR
Sub-base: PA66



Valve Technical Data



5/2 Single and double solenoid actuated valves

Symbol	Series	Function	Actuation	Pilot Supply	Pilot Pressure (bar / psi)	Operating Pressure (bar / psi)	Manual Override	Voltage *1)	Weight (kg / lbs)	Model PNP
	VR10	5/2	Sol/Sol.	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c	0.069 / 0.1518	VR10S511BV313A
	VR15	5/2	Sol/Sol.	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c	0.093 / 0.2046	VR15S511BV313A
	VR10	5/2	Sol/Sol.	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c	0.069 / 0.1518	VR10S511BV312A
	VR15	5/2	Sol/Sol.	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c	0.093 / 0.2046	VR15S511BV312A
	VR10	5/2	Sol/Sol.	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c	0.069 / 0.1518	VR10S522BV313A
	VR15	5/2	Sol/Sol.	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c	0.093 / 0.2046	VR15S522BV313A
	VR10	5/2	Sol/Sol.	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c	0.069 / 0.1518	VR10S522BV312A
	VR15	5/2	Sol/Sol.	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c	0.093 / 0.2046	VR15S522BV312A
	VR10	5/2	Sol/Spring	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c	0.061 / 0.1342	VR10S513BV313A
	VR15	5/2	Sol/Spring	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c	0.084 / 0.1848	VR15S513BV313A
	VR10	5/2	Sol/Spring	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c	0.061 / 0.1342	VR10S513BV312A
	VR15	5/2	Sol/Spring	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c	0.084 / 0.1848	VR15S513BV312A
	VR10	5/2	Sol/Spring	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c	0.061 / 0.1342	VR10S523BV313A
	VR15	5/2	Sol/Spring	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c	0.084 / 0.1848	VR15S523BV313A
	VR10	5/2	Sol/Spring	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c	0.061 / 0.1342	VR10S523BV312A
	VR15	5/2	Sol/Spring	External	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c	0.084 / 0.1848	VR15S523BV312A

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type

VR SERIES VALVE MANIFOLDS

2 x 3/2, 5/2 or 5/3

5/3 Single and double solenoid actuated valves

Symbol	Series	Function	Actuation	Pilot Supply	Pilot Pressure (bar / psi)	Operating Pressure (bar / psi)	Manual Override	Voltage *1)	Weight (kg / lbs)	Model PNP
	VR10	5/3	APB	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S611BV313A
	VR15	5/3	APB	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.100 / 0.220	VR15S611BV313A
	VR10	5/3	APB	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.071 / 0.1562	VR10S611BV312A
	VR15	5/3	APB	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.100 / 0.220	VR15S611BV312A
	VR10	5/3	APB	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S622BV313A
	VR15	5/3	APB	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.100 / 0.220	VR15S622BV313A
	VR10	5/3	APB	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.071 / 0.1562	VR10S622BV312A
	VR15	5/3	APB	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.100 / 0.220	VR15S622BV312A
	VR10	5/3	COE	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S711BV313A
	VR15	5/3	COE	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.100 / 0.220	VR15S711BV313A
	VR10	5/3	COE	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.071 / 0.1562	VR10S711BV312A
	VR15	5/3	COE	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.100 / 0.220	VR15S711BV312A
	VR10	5/3	COE	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S722BV313A
	VR15	5/3	COE	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.100 / 0.220	VR15S722BV313A
	VR10	5/3	COE	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.071 / 0.1562	VR10S722BV312A
	VR15	5/3	COE	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.100 / 0.220	VR15S722BV312A
	VR10	5/3	COP	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S811BV313A
	VR15	5/3	COP	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.100 / 0.220	VR15S811BV313A
	VR10	5/3	COP	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.071 / 0.1562	VR10S811BV312A
	VR15	5/3	COP	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.100 / 0.220	VR15S811BV312A
	VR10	5/3	COP	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.071 / 0.1562	VR10S822BV313A
	VR15	5/3	COP	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	24 V d.c.	0.100 / 0.220	VR15S822BV313A
	VR10	5/3	COP	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.071 / 0.1562	VR10S822BV312A
	VR15	5/3	COP	Extern	2-7 / 29-101	-1-7 / -14.5-101	Push only	12V d.c.	0.100 / 0.220	VR15S822BV312A

*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type

APB= All Ports Blocked
COE= Centre Open Exhaust
COP= Centre Open Port

2x 3/2 Double solenoid actuated valves

Symbol	Series	Function	Actuation	Pilot Supply	Pilot Pressure (bar / psi)	Operating Pressure (bar / psi)	Manual Override	Voltage *1)	Weight (kg / lbs)	Model PNP
	VR10	2X3/2	NC/NC	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.069 / 0.1518	VR10SA11BV313A
	VR15	2X3/2	NC/NC	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.092 / 0.2024	VR15SA11BV313A
	VR10	2X3/2	NC/NC	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.069 / 0.1518	VR10SA11BV312A
	VR15	2X3/2	NC/NC	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.092 / 0.2024	VR15SA11BV312A
	VR10	2X3/2	NC/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.069 / 0.1518	VR10SC11BV313A
	VR15	2X3/2	NC/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.092 / 0.2024	VR15SC11BV313A
	VR10	2X3/2	NC/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.069 / 0.1518	VR10SC11BV312A
	VR15	2X3/2	NC/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.092 / 0.2024	VR15SC11BV312A
	VR10	2X3/2	NO/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.069 / 0.1518	VR10SB11BV313A
	VR15	2X3/2	NO/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	24 V d.c.	0.092 / 0.2024	VR15SB11BV313A
	VR10	2X3/2	NO/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.069 / 0.1518	VR10SB11BV312A
	VR15	2X3/2	NO/NO	Internal	2-7 / 29-101	2-7 / 29-101	Push only	12V d.c.	0.092 / 0.2024	VR15SB11BV312A

Electrical details for solenoid operators

Supply voltage*:	12 V d.c. & 24V d.c.
Power consumption*:	12 V d.c. & 24 V d.c 0.45W (Energy saving type)
Manual override:	Push only
Rating:	100% E.D.
Indication:	LED red/green
Surge suppression:	surge protecting circuit is equipped
Protection class:	IP40 or IP65

*12V d.c. valves only for Multipole

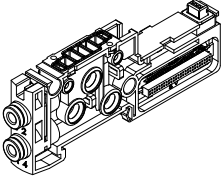
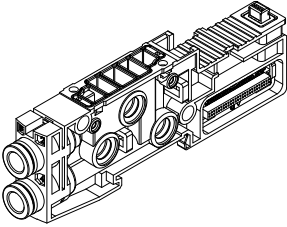
*1) 12V d.c. valves only for Multipole / all solenoids are a 0.45W energy saving type

NC= Normally Closed
NO= Normally Open

VR SERIES VALVE MANIFOLDS

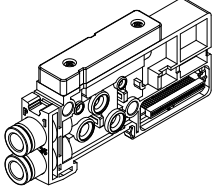
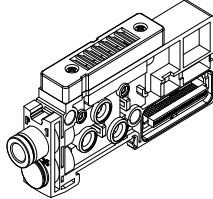
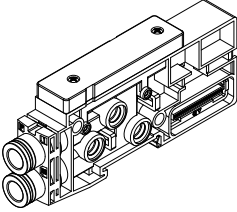
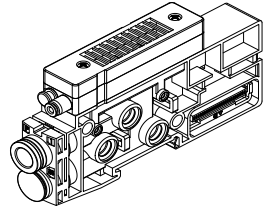
2 x 3/2, 5/2 or 5/3

Sub-bases only


	Series	Port Size	Single / double wiring*	Weight (kg / lbs)	Model
	VR10	Ø4	Single	0.036 / 0.0792	VR107516BM1114
	VR10	Ø4	Double	0.036 / 0.0792	VR107516BM1124
	VR10	Ø6	Single	0.036 / 0.0792	VR107516BM1116
	VR10	Ø6	Double	0.036 / 0.0792	VR107516BM1126
	VR10	Ø5/32"	Single	0.036 / 0.0792	VR107516BM1111
	VR10	Ø5/32"	Double	0.036 / 0.0792	VR107516BM1121
	VR10	Ø1/4"	Single	0.036 / 0.0792	VR107516BM1119
	VR10	Ø1/4"	Double	0.036 / 0.0792	VR107516BM1129
	VR15	Ø4	Single	0.083 / 0.1826	VR157516BM1114
	VR15	Ø4	Double	0.083 / 0.1826	VR157516BM1124
	VR15	Ø6	Single	0.083 / 0.1826	VR157516BM1116
	VR15	Ø6	Double	0.083 / 0.1826	VR157516BM1126
	VR15	Ø8	Single	0.083 / 0.1826	VR157516BM1118
	VR15	Ø8	Double	0.083 / 0.1826	VR157516BM1128
	VR15	Ø5/32"	Single	0.083 / 0.1826	VR157516BM1111
	VR15	Ø5/32"	Double	0.083 / 0.1826	VR157516BM1121
	VR15	Ø1/4"	Single	0.083 / 0.1826	VR157516BM1119
	VR15	Ø1/4"	Double	0.083 / 0.1826	VR157516BM1129
	VR15	Ø5/16"	Single	0.083 / 0.1826	VR157516BM1110
	VR15	Ø5/16"	Double	0.083 / 0.1826	VR157516BM1120

*Sub-bases are available in single and double wired versions. Single wired bases can only be used with single solenoid valves. Double wired bases can be used with both single solenoid and double solenoid valves

Supply/Exhaust modules only

without silencer	with silencer	Series	Port Size	Pilot Supply	With Silencer	Weight (kg / lbs)	Model
		VR10	Ø8	Internal	Yes	0.071 / 0.1562	VR107516BMY108
		VR10	Ø8	External	Yes	0.091 / 0.2002	VR107516BMY208
		VR10	Ø8	Internal	No	0.071 / 0.1562	VR107516BMN108
		VR10	Ø8	External	No	0.091 / 0.2002	VR107516BMN208
		VR10	Ø5/16"	Internal	Yes	0.071 / 0.1562	VR107516BMY100
		VR10	Ø5/16"	External	Yes	0.091 / 0.2002	VR107516BMY200
		VR10	Ø5/16"	Internal	No	0.071 / 0.1562	VR107516BMN100
		VR10	Ø5/16"	External	No	0.091 / 0.2002	VR107516BMN200
		VR15	Ø10	Internal	Yes	0.105 / 0.231	VR157516BMY10Y
		VR15	Ø10	External	Yes	0.125 / 0.275	VR157516BMY20Y
		VR15	Ø10	Internal	No	0.105 / 0.231	VR157516BMN10Y
		VR15	Ø10	External	No	0.125 / 0.275	VR157516BMN20Y
		VR15	Ø3/8"	Internal	Yes	0.105 / 0.231	VR157516BMY101
		VR15	Ø3/8"	External	Yes	0.125 / 0.275	VR157516BMY201
		VR15	Ø3/8"	Internal	No	0.105 / 0.231	VR157516BMN101
		VR15	Ø3/8"	External	No	0.125 / 0.275	VR157516BMN201

End Plate Only (IP65 Versions)

	Series	Cover Location	Weight (kg / lbs)	Model
	VR10	Right	0,06 / 0,132	VR107516BM0901
	VR10	Left	0,078 / 0,1716	VR107516BM0904
	VR15	Right	0,086 / 0,1892	VR157516BM0901
	VR15	Left	0,096 / 0,2112	VR157516BM0904





VR SERIES VALVE MANIFOLDS

2 x 3/2, 5/2 or 5/3



VR10 & VR15 Control Modules (IP65 Version)

PROFINET IRT	EtherNet/IP	EtherCAT	IO-Link	Multipole
				
VR1X7516BM02PN	VR1X7516BM02EP	VR1X7516BM02EC	VR1X7516BM02IL	VR1X7516BM02M6
Weight: 0,223 kg	Weight: 0,224 kg	Weight: 0,221 kg	Weight: 0,181 kg	Weight: 0,128 kg


Industrial Ethernet - Cable and Connectors

Bus cable: 4-pin D-coded M12 - M12		Bus cable: 4-pin D-coded M12 - flying lead		Bus connector RJ45 Wireable	Power cable: 5-pin A-coded M12 - flying lead	
						
Model	Cable length (m)	Model	Cable length (m)	NC-RJ450-0000000	Model	Cable length (m)
NC-124MS-1244SGA	0,5	NC-124MS-00000G2	2,0		NC-125FS-00000-5	5,0
NC-124MS-1244SG2	2,0	NC-124MS-00000G5	5,0			
NC-124MS-1244SG5	5,0					


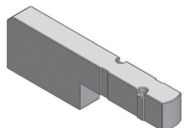

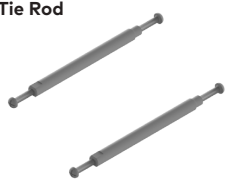
IO-Link - Cables

Cable 5-pin A-code M12 - M12		Cable 5-pin A-code M12 - flying lead	
			
Model	Cable length (m)	Model	Cable length (m)
NC-125FS-125MS-A	0,6	NC-125FS-00000-5	5,0
NC-125FS-125MS-1	1,0		
NC-125FS-125MS-2	2,0		
NC-125FS-125MS-5	5,0		

Multipole (IP65) - Cables

D-Sub IP65 Connector Cable

V11569-E##
Insert 01 for 1m, 03 for 3m and 05 for 5m

Accessories

Blank Plug Kit (3pcs)	Blanking Plate	DIN Rail	Tie Rod expansion Kit	Tie Rod
				
VR**7516AM0400	VR**7516AM0300	VR**7516AM08##	VR**7516MM07##NA	VR**7516MM07#\$
** Insert 10 for VR10 or 15 for VR15	** Insert 10 for VR10 or 15 for VR15	** Insert 10 for VR10 or 15 for VR15 #Insert 06 for 2-6 stations 10 for 7-10 stations 15 for 11-15 stations 20 for 16-20 stations 24 for 21-24 stations	** Insert 10 for VR10 or 15 for VR15 ## Insert MS : ISEM expansion rod M1 : 1 Station modular rod M2 : 2 Stations modular rod	** Insert 10 for VR10 or 15 for VR15 # Insert 02...24 for number of stations. # Insert 05...24 for number of stations. \$ Insert E1=1, E2=2, E3=3 and E4=4 for number of sup/exh modules

PLUG-IN MINI ISO VALVE ISLANDS

VS18 & VS26 Series 2 x 2/2, 2 x 3/2, 5/2 and 5/3 valves, ISO 15407-2 – Sizes 18 mm and 26 mm

- » Multipole or integrated fieldbus for installation flexibility
- » Field expandable with single add-on stations
- » Dual spool technology:
 - Glandless spool and sleeve for long life
 - Softseal spool for high flow
- » Wide range of accessories
- » ATEX
- » Universal PNP/NPN 24 VDC Multipole

Technical Data

Medium:

Compressed air, filtered to 40 µm, lubricated or non-lubricated

Operation:

Spool valve indirectly actuated

Operating pressure:

Maximum pressure
 Softseal & glandless spools
 145 psig (10 bar) internal pilot supply
 Glandless spools
 232 psig (16 bar) main valve with
 145 psig
 (10 bar) max for external pilot supply

Flow:

VS18 0.66 Cv (650 l/min) maximum
 VS26 1.37 Cv (1350 l/min) maximum

Voltage:

24 VDC, 115 AC

Ambient temperature*:

5°F to 122°F (–15°C to +50°C)

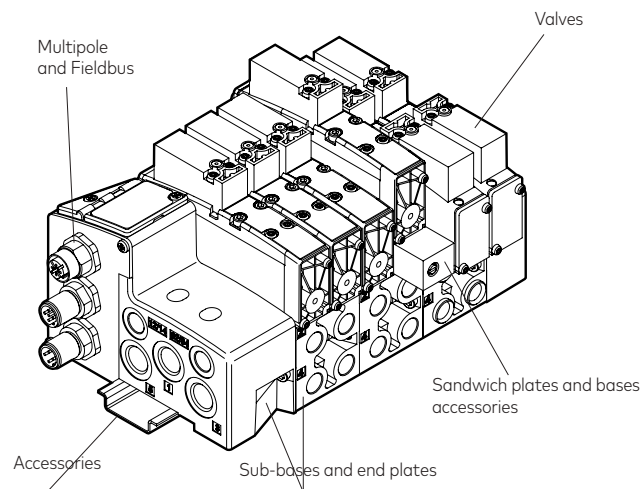
* Consult our Technical Service for use below 35°F (2°C)

Degree of protection:

Multipole and fieldbus IP65



To order please use valve manifold configurator available at www.imi-precision.com/us/en and search under Technical Support Section.



VS18 SERIES

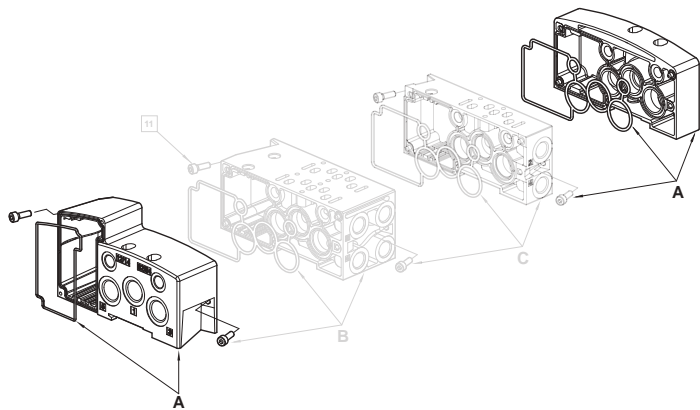
ISO 15407-2 – Size 18 mm

STEP 1

Start with your 1/4" NPT Endplate kit for multipole.

A- End plate kit

Model	Ports 1, 3 & 5	Ports 12/14 & 82/84
VS1872000-RFCO	NPTF 1/4	NPTF1/8

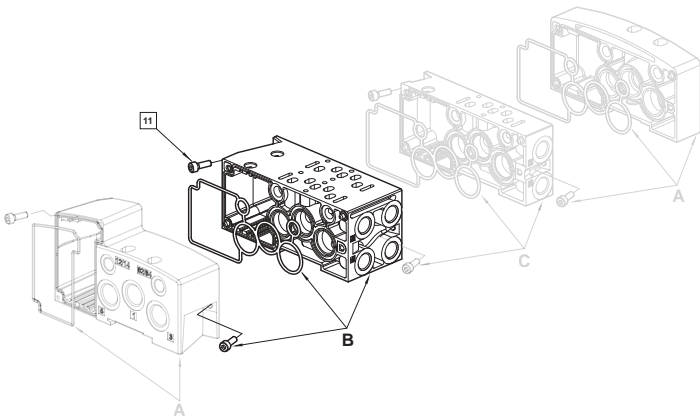


STEP 2

Determine port size: 1/8" NPT, or 1/4" PIF (push-in fitting) ports, and number of valve stations required

B – Double station modular sub-base

Model	Ports 2 & 4
VS1872002-PFFO	NPTF 1/8
VS1872002-1FFO	PIF 1/4

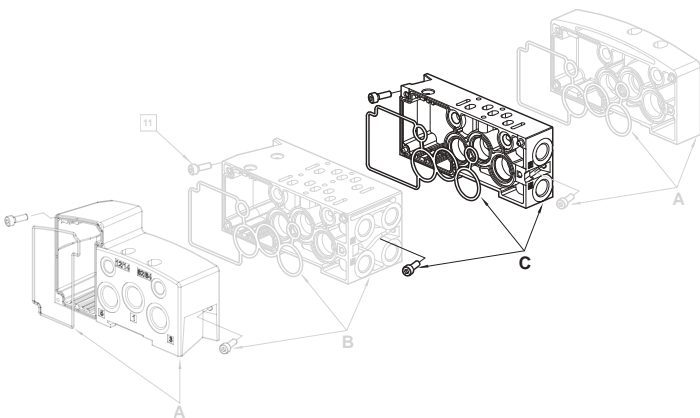


STEP 3

If your manifold has an even number of stations skip this step. For an odd number subbase manifold order one subbase with either 1/8" NPT, or 1/4" PIF.

C – Single station modular sub-base

Model	Ports 2 & 4
VS1872003-PFFO	NPTF 1/8
VS1872003-1FFO	PIF 1/4

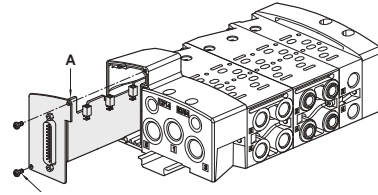


VS18 SERIES

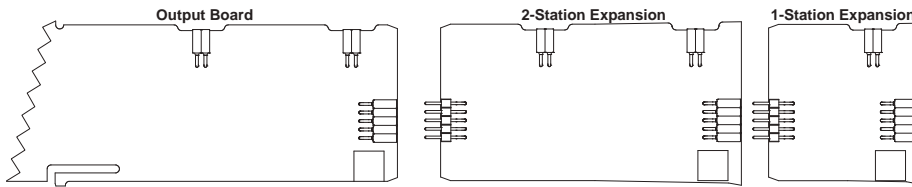
ISO 15407-2 – Size 18 mm

STEP 4

Determine the electrical control of your manifold by using the tables below to select your multipole connection.



Multipole Connection	Number of Stations															Voltage	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	24 VDC	115 VAC
9-pin D-Sub	Y	Y	Y													Y	
15-pin D-Sub	Y	Y	Y	Y	Y	Y										Y	
25-Pin D-Sub	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					Y	
44-pin D-Sub									Y	Y	Y	Y	Y	Y	Y	Y	
1" Conduit	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					Y	Y



9-pin D-Sub Multipole Connection (24 VDC)

Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
2-station	1	VS1872217-KF00				
3-station	1	VS1872217-KF00			1	VS1872255-KF00
4-station	1	VS1872217-KF00	1	VS1872213-KF00		

15-pin D-Sub Multipole Connection (24 VDC)

Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
2-station	1	VS1872218-KF00				
3-station	1	VS1872218-KF00			1	VS1872255-KF00
4-station	1	VS1872205-KF00				
5-station	1	VS1872205-KF00			1	VS1872255-KF00
6-station	1	VS1872205-KF00	1	VS1872213-KF00		
7-station	1	VS1872205-KF00	1	VS1872213-KF00	1	VS1872255-KF00

25-pin D-Sub Multipole Connection (24 VDC)

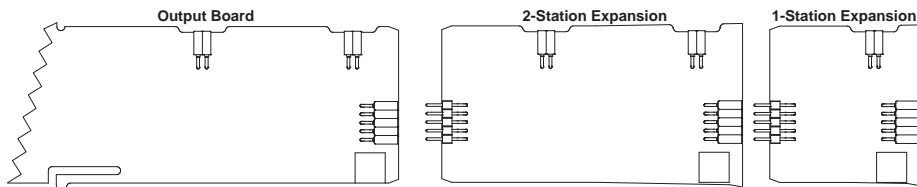
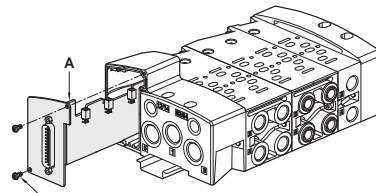
Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
2-station	1	VS1872219-KF00				
3-station	1	VS1872219-KF00			1	VS1872255-KF00
4-station	1	VS1872200-KF00				
5-station	1	VS1872200-KF00			1	VS1872255-KF00
6-station	1	VS1872201-KF00				
7-station	1	VS1872201-KF00			1	VS1872255-KF00
8-station	1	VS1872202-KF00				
9-station	1	VS1872202-KF00			1	VS1872255-KF00
10-station	1	VS1872202-KF00	1	VS1872213-KF00		
11-station	1	VS1872202-KF00	1	VS1872213-KF00	1	VS1872255-KF00
12-station	1	VS1872202-KF00	2	VS1872213-KF00		

VS18 SERIES

ISO 15407-2 – Size 18 mm

STEP 4

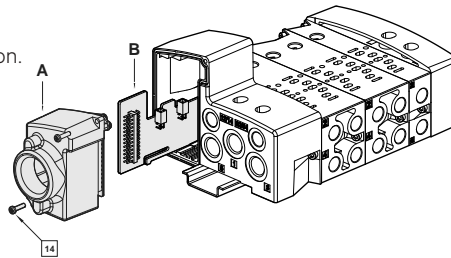
Determine the electrical control of your manifold by using the tables below to select your multipole connection.



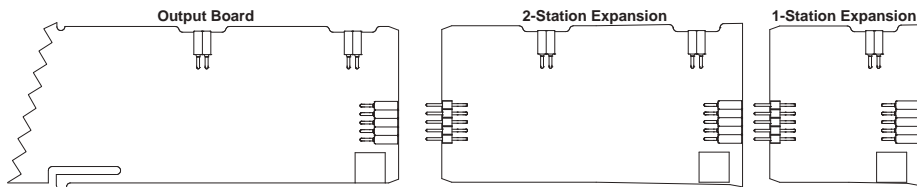
44-pin D-Sub Multipole Connection (24 VDC)						
Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
10-station	1	VS1872206-KF00				
11-station	1	VS1872206-KF00			1	VS1872255-KF00
12-station	1	VS1872204-KF00				
13-station	1	VS1872204-KF00			1	VS1872255-KF00
14-station	1	VS1872204-KF00	1	VS1872213-KF00		
15-station	1	VS1872204-KF00	1	VS1872213-KF00	1	VS1872255-KF00
16-station	1	VS1872204-KF00	2	VS1872213-KF00		

STEP 4A

Order 1" Conduit Housing for use with 1" Conduit Multipole Connector.



1" Conduit Housing		
Part Number	Description	Voltage
VS2672742-KG00	E-connector kit, 1" NPTF Conduit entry	115 VAC, 24 VDC



1" Conduit Multipole Connection (24 VDC or 115 VAC)						
Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
2-station	1	VS1872208-KF00				
3-station	1	VS1872208-KF00			1	VS1872256-KF00
4-station	1	VS1872209-KF00				
5-station	1	VS1872209-KF00			1	VS1872256-KF00
6-station	1	VS1872210-KF00				
7-station	1	VS1872210-KF00			1	VS1872256-KF00
8-station	1	VS1872211-KF00				
9-station	1	VS1872211-KF00			1	VS1872256-KF00
10-station	1	VS1872211-KF00	1	VS1872215-KF00		
11-station	1	VS1872211-KF00	1	VS1872215-KF00	1	VS1872256-KF00
12-station	1	VS1872211-KF00	2	VS1872215-KF00		



VS18 SERIES

ISO 15407-2 – Size 18 mm



STEP 5

Choose your VS18 valves



2X3/2 Single solenoid/spring actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS18SA11DF313A ¹	Soft Seal	0.61	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18SA11DF213A ¹	Soft Seal	0.61	36 to 145	Locking	24 VDC	VS2672932-KG00
VS18SB11DF313A ²	Soft Seal	0.61	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18SC11DF313A	Soft Seal	0.61	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18SA11DF318A ¹	Soft Seal	0.61	36 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18SA11DF218A ¹	Soft Seal	0.61	36 to 145	Locking	115 VAC	VS2672933-KG00
VS18SB11DF318A ²	Soft Seal	0.61	36 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18SC11DF318A ^{1,2}	Soft Seal	0.61	36 to 145	Non-Locking	115 VAC	VS2672931-KG00



5/2 Single solenoid/spring actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS18S517DF313A	Soft Seal	0.66	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18S517DF213A	Soft Seal	0.66	29 to 145	Locking	24 VDC	VS2672932-KG00
VS18G517DF313A	Glandless	0.56	23 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18G517DF213A	Glandless	0.56	23 to 145	Locking	24 VDC	VS2672932-KG00
VS18S517DF318A	Soft Seal	0.66	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18S517DF218A	Soft Seal	0.66	29 to 145	Locking	115 VAC	VS2672933-KG00
VS18G517DF318A	Glandless	0.56	23 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18G517DF218A	Glandless	0.56	23 to 145	Locking	115 VAC	VS2672933-KG00

5/2 Double solenoid actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS18S511DF313A	Soft Seal	0.66	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18S511DF213A	Soft Seal	0.66	29 to 145	Locking	24 VDC	VS2672932-KG00
VS18G511DF313A	Glandless	0.56	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18G511DF213A	Glandless	0.56	29 to 145	Locking	24 VDC	VS2672932-KG00
VS18S511DF318A	Soft Seal	0.66	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18S511DF218A	Soft Seal	0.66	29 to 145	Locking	115 VAC	VS2672933-KG00
VS18G511DF318A	Glandless	0.56	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18G511DF218A	Glandless	0.56	29 to 145	Locking	115 VAC	VS2672933-KG00

5/3 Double solenoid actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS18S611DF313A ³	Soft Seal	0.66	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18S711DF313A ⁴	Soft Seal	0.66	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS18S611DF318A ³	Soft Seal	0.66	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS18S711DF318A ⁴	Soft Seal	0.66	29 to 145	Non-Locking	115 VAC	VS2672931-KG00

1 Normally closed

2 Normally open

3 All ports blocked

4 Center open to exhaust

VS18 SERIES

ISO 15407-2 – Size 18 mm

Output boards with D-sub connectors

Model No.	Description	Expandable to max stations	Voltage
VS1872217-KF00	2-station PCB 9 pin	4	24 VDC
VS1872218-KF00	2-station PCB 15 pin	6	24 VDC
VS1872205-KF00	4-station PCB 15 pin	7	24 VDC
VS1872219-KF00	2-station PCB 25 pin	6	24 VDC
VS1872200-KF00	4-station PCB 25 pin	8	24 VDC
VS1872201-KF00	6-station PCB 25 pin	10	24 VDC
VS1872202-KF00	8-station PCB 25 pin	12	24 VDC
VS1872206-KF00	10-station PCB 44 pin	14	24 VDC
VS1872204-KF00	12-station PCB 44 pin	16	24 VDC
VS1872255-KF00	Multipole PCB 1 station		24 VDC
VS1872213-KF00	Multipole PCB 2 station		24 VDC






Expansion output boards for D-sub connectors

Model No.	Description	Voltage
VS1872255-KF00	Multipole PCB 1 station	24 VDC
VS1872213-KF00	Multipole PCB 2 station	24 VDC






Valve and Manifold Gaskets

Part Number	Description
94.00907	VS18 Valve to VS18 Manifold Gasket
94.01015	VS18 Manifold to VS18 Manifold Gasket
94.00816	VS18 Electrical Gasket

Multipole Accessories with IP65*






D-Sub connector 9-pin	D-Sub connector 15-pin	D-Sub connector 25-pin	D-Sub connector 44-pin	M23 connector 19-pin
				
VS2672910-KG00 3' (1m)	VS2672915-KG00 3' (1m)	V11569-E01 3' (1m)	V11570-E01 3' (1m)	VS2672943-KG00 3' (1m)
VS2672911-KG00 10' (3m)	VS2672916-KG00 10' (3m)	V11569-E03 10' (3m)	V11570-E03 10' (3m)	VS2672944-KG00 10' (3m)
VS2672912-KG00 16' (5m)	VS2672917-KG00 16' (5m)	V11569-E05 16' (5m)	V11570-E05 16' (5m)	VS2672945-KG00 16' (5m)

Accessories


DIN EN 50 022 rail (1 meter)	DIN-rail mounting kit	Blanking disc to modular sub-base	Extended manual override kit	Blanking plug for base connector hole ¹
				
V10009-C00 (35 x 7.5 mm)	V70531-KA0	VS1872405-KF00 (Ports 1, 3, 5) VS1872406-KF00 (Port 12/14)	VS2672960-KG00	VS2672914-KG00

1) When V40/V41 valves are fitted on VS18 bases.

Sandwich plates and base accessories

Single pressure regulator plate	Double pressure regulator plate	Sandwich flow control	Blanking plate	Replacement gauge
				
VS1872400-KF10 (Port 1) VS1872400-KF20 (Port 2) VS1872400-KF30 (Port 4)	VS1872400-KF40 (Ports 2+4)	VS1872401-KF00 (Ports 3+5)	VS1872404-KF00	V70534-500

Stand alone subbase

Model No.	Description	Ports 1,2, 3,4 & 5	Ports 12/14 & 82/84	Electrical connection	Voltage
					
VS1872010-PF00	Stand alone single subbase	NPFT 1/8"	NPFT 1/8"	M12	24 VDC
VS1872011-PF00	Stand alone single subbase	NPFT 1/8"	NPFT 1/8"	1/2" Conduit	115 VAC or 24 VDC

Connector kits

Model No.	Description	Voltage
VS2672742-KG00	E-Connector Kit 1" Conduit entry	115 VAC or 24 VDC
VS2672743-KG00	E-Connector Kit M23 connector	115 VAC or 24 VDC

Output boards with conduit connectors

Model No.	Description	Expandable to max stations	Voltage
VS1872208-KF00	2-station PCB	6	115 VAC or 24 VDC
VS1872209-KF00	4-station PCB	8	115 VAC or 24 VDC
VS1872210-KF00	6-station PCB	10	115 VAC or 24 VDC
VS1872211-KF00	8-station PCB	12	115 VAC or 24 VDC

Expansion output boards for 1" conduit & M23

Model No.	Description	Voltage
VS1872256-KF00	Multipole PCB 1 station	115 VAC or 24 VDC
VS1872215-KF00	Multipole PCB 2 station	115 VAC or 24 VDC

VS26 SERIES

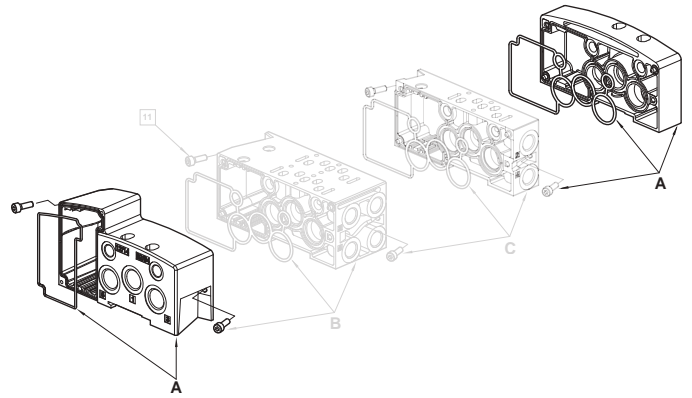
ISO 15407-2 – Size 26 mm

STEP 1

Start with your 3/8" NPT Endplate kit for multipole.

A – End plate kit

Model	Description	Ports 2 & 4	Ports 12/14 & 82/84
VS2672500-SGCO	End plate kit for Multipole	NPTF 3/8	NPTF 1/8

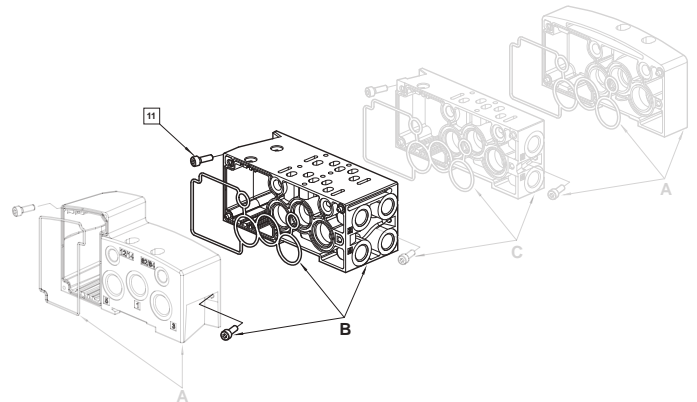


STEP 2

Determine port size: 1/4" NPT, or 3/8" PIF (push-in fitting) ports, and number of valve stations required.

B – Double station modular sub-base

Model	Ports 2 & 4
VS2672502-RGFO	NPTF 1/4
VS2672502-2GFO	PIF 3/8

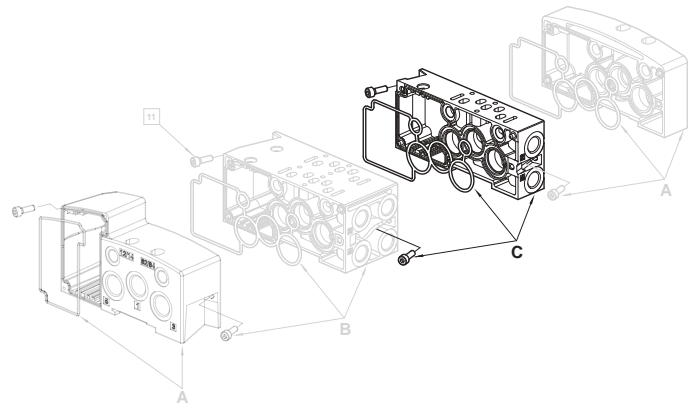


STEP 3

If your manifold has an even number of stations skip this step. For an odd number subbase manifold order one subbase with either 1/4" NPT, or 3/8" PIF.

C – Single station modular sub-base

Model	Ports 2 & 4
VS2672503-RGFO	NPTF 1/4
VS2672503-2GFO	PIF 3/8

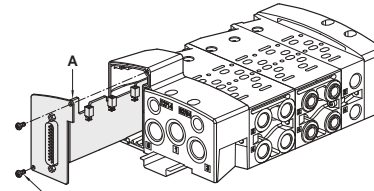


VS26 SERIES

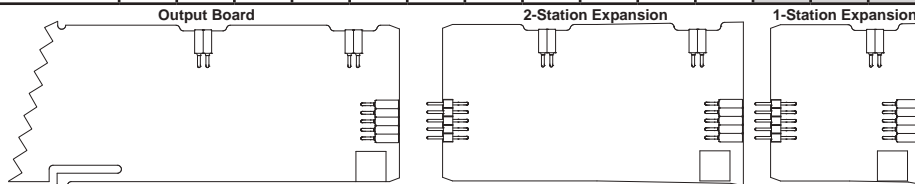
ISO 15407-2 – Size 26 mm

STEP 4

Determine the electrical control of your manifold by using the tables below to select your multipole connection.



Multipole Connection	Number of Stations																Voltage	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	24Vdc	115Vac	
9-pin D-Sub	Y	Y	Y													Y		
15-pin D-Sub	Y	Y	Y	Y	Y	Y										Y		
25-Pin D-Sub	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					Y		
44-pin D-Sub									Y	Y	Y	Y	Y	Y	Y	Y		
1" Conduit	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					Y	Y	



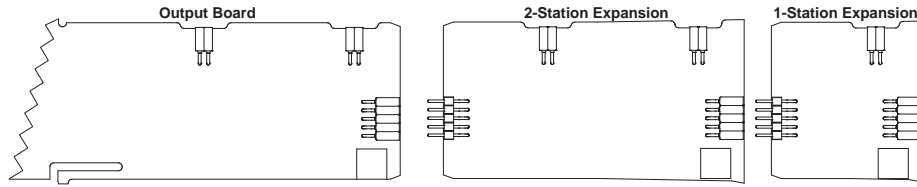
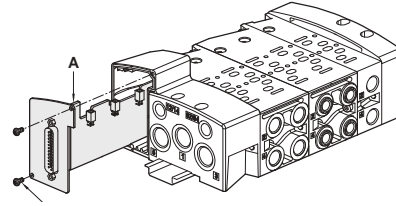
9-pin D-Sub Multipole Connection (24 VDC)					
Number of Stations		Output Board		2-Station Expansion	1-Station Expansion
2-station	1	VS2672717-KG00			
3-station	1	VS2672717-KG00			1 VS2672755-KG00
4-station	1	VS2672717-KG00	1	VS2672713-KG00	

15-pin D-Sub Multipole Connection (24 VDC)					
Number of Stations		Output Board		2-Station Expansion	1-Station Expansion
2-station	1	VS2672718-KG00			
3-station	1	VS2672718-KG00			1 VS2672755-KG00
4-station	1	VS2672705-KG00			
5-station	1	VS2672705-KG00			1 VS2672755-KG00
6-station	1	VS2672705-KG00	1	VS2672713-KG00	
7-station	1	VS2672705-KG00	1	VS2672713-KG00	1 VS2672755-KG00

25-pin D-Sub Multipole Connection (24 VDC)					
Number of Stations	Qty	Output Board		2-Station Expansion	1-Station Expansion
2-station	1	VS2672719-KG00			
3-station	1	VS2672719-KG00			1 VS2672755-KG00
4-station	1	VS2672700-KG00			
5-station	1	VS2672700-KG00			1 VS2672755-KG00
6-station	1	VS2672701-KG00			
7-station	1	VS2672701-KG00			1 VS2672755-KG00
8-station	1	VS2672702-KG00			
9-station	1	VS2672702-KG00			1 VS2672755-KG00
10-station	1	VS2672702-KG00	1	VS2672713-KG00	
11-station	1	VS2672702-KG00	1	VS2672713-KG00	1 VS2672755-KG00
12-station	1	VS2672702-KG00	2	VS2672713-KG00	

VS26 SERIES

ISO 15407-2 – Size 26 mm

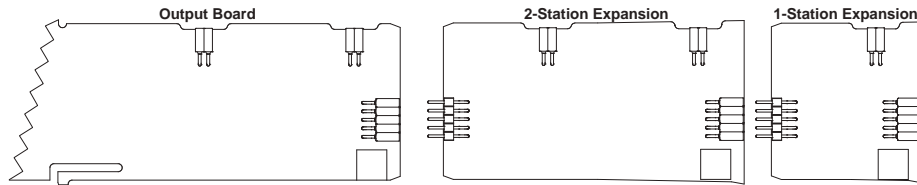
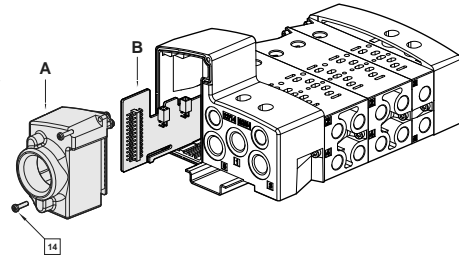


44-pin D-Sub Multipole Connection (24 VDC)					
Number of Stations		Output Board	Qty	2-Station Expansion	1-Station Expansion
10-station	1	VS2672706-KG00			
11-station	1	VS2672706-KG00			1 VS2672755-KG00
12-station	1	VS2672704-KG00			
13-station	1	VS2672704-KG00			1 VS2672755-KG00
14-station	1	VS2672704-KG00	1	VS2672713-KG00	
15-station	1	VS2672704-KG00	1	VS2672713-KG00	1 VS2672755-KG00
16-station	1	VS2672704-KG00	2	VS2672713-KG00	

STEP 4A

Order 1" Conduit Housing for use with 1" Conduit Multipole Connector.

1" Conduit Housing		
Part Number	Description	Voltage
VS2672742-KG00	E-connector kit, 1" NPTF Conduit entry	115 VAC, 24 VDC



1" Conduit Multipole Connection (24 VDC or 115 VAC)						
Number of Stations	Qty	Output Board	Qty	2-Station Expansion	Qty	1-Station Expansion
2-station	1	VS2672708-KG00				
3-station	1	VS2672708-KG00			1	VS2672756-KG00
4-station	1	VS2672709-KG00				
5-station	1	VS2672709-KG00			1	VS2672756-KG00
6-station	1	VS2672710-KG00				
7-station	1	VS2672710-KG00			1	VS2672756-KG00
8-station	1	VS2672711-KG00				
9-station	1	VS2672711-KG00			1	VS2672756-KG00
10-station	1	VS2672711-KG00	1	VS2672715-KG00		
11-station	1	VS2672711-KG00	1	VS2672715-KG00	1	VS2672756-KG00
12-station	1	VS2672711-KG00	2	VS2672715-KG00		

VS26 SERIES



ISO 15407-2 – Size 26 mm

STEP 5



Choose your VS26 valves

Models – VS26 Series



2X3/2 Double solenoid/spring actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS26SA11DF313A ¹	Soft Seal	1.27	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26SA11DF213A ¹	Soft Seal	1.27	36 to 145	Locking	24 VDC	VS2672932-KG00
VS26SB11DF313A ²	Soft Seal	1.27	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26SC11DF313A ^{1,2}	Soft Seal	1.27	36 to 145	Non-Locking	24 VDC	VS2672930-KG00



5/2 Solenoid/spring actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS26S517DF313A	Soft Seal	1.37	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26S517DF213A	Soft Seal	1.37	29 to 145	Locking	24 VDC	VS2672932-KG00
VS26G517DF313A	Glandless	1.02	23 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26G517DF213A	Glandless	1.02	23 to 145	Locking	24 VDC	VS2672932-KG00
VS26S517DF318A	Soft Seal	1.37	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26S517DF218A	Soft Seal	1.37	29 to 145	Locking	115 VAC	VS2672933-KG00
VS26G517DF318A	Glandless	1.02	23 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26G517DF218A	Glandless	1.02	23 to 145	Locking	115 VAC	VS2672933-KG00

2X3/2 Solenoid/spring actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS26SA11DF318A ¹	Soft Seal	1.27	36 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26SA11DF218A ¹	Soft Seal	1.27	36 to 145	Locking	115 VAC	VS2672933-KG00
VS26SB11DF318A ²	Soft Seal	1.27	36 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26SC11DF318A ^{1,2}	Soft Seal	1.27	36 to 145	Non-Locking	115 VAC	VS2672931-KG00

5/2 Double solenoid actuated valves

Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS26S511DF313A	Soft Seal	1.37	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26S511DF213A	Soft Seal	1.37	29 to 145	Locking	24 VDC	VS2672932-KG00
VS26G511DF313A	Glandless	1.02	29 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26G511DF213A	Glandless	1.02	29 to 145	Locking	24 VDC	VS2672932-KG00
VS26S511DF318A	Soft Seal	1.37	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26S511DF218A	Soft Seal	1.37	29 to 145	Locking	115 VAC	VS2672933-KG00
VS26G511DF318A	Glandless	1.02	29 to 145	Non-Locking	115 VAC	VS2672931-KG00
VS26G511DF218A	Glandless	1.02	29 to 145	Locking	115 VAC	VS2672933-KG00

1 Normally closed

2 Normally open

1 Normally closed



2 Normally open

VS26 SERIES

ISO 15407-2 – Size 26 mm

Models – VS26 Series

5/3 Double solenoid actuated valves


Model No.	Spool type	Flow Cv	Operating pressure PSI	Manual override	Voltage	Solenoid
						
VS26S611DF313A³	Soft Seal	1.37	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26S711DF313A⁴	Soft Seal	1.37	36 to 145	Non-Locking	24 VDC	VS2672930-KG00
VS26S611DF318A³	Soft Seal	1.37	36 to 145	Non-Locking	115 VAC	VS2672931-KG00

³ All ports blocked

⁴ Center open to exhaust

VS26 Bases and accessories


Single station expansion subbase

Model No.	Description	Ports 1, 3 & 5
		
VS2672503-RGFO	1-station base threaded port	NPTF 1/4"
VS2672503-2GFO	1-station base with fitting	3/8" PIF


Valve and Manifold Gaskets

Part Number	Description
94.00759	VS26 Valve to VS26 Manifold Gasket
94.00815	VS26 Manifold to VS26 Manifold Gasket
94.00816	VS26 Electrical Gasket


Double station subbase

Model No.	Description	Ports 2 & 4
		
VS2672502-RGFO	2-station base threaded port	NPTF 1/4"
VS2672502-2GFO	2-station base with fitting	3/8" PIF

Stand alone subbase

Model No.	Description	Ports 1, 2, 3, 4 & 5	Ports 12/14 & 82/84	Electrical connection	Voltage
					
VS2672510-RG00	Stand alone single subbase	NPTF 1/4"	NPTF 1/8"	M12	24 VDC
VS2672511-RG00	Stand alone single subbase	NPTF 1/4"	NPTF 1/8"	1/2" conduit	115 VAC or 24 VDC

Endplate kit for multipole

Model No.	Description	Ports 1, 3, & 5	Ports 12/14 & 82/84
			
VS2672500-SGCO	End plate kit for multipole –	NPTF 3/8	NPTF 1/8

VS26 SERIES

ISO 15407-2 – Size 26 mm

VS26 Multipole Components

Output boards with D-sub connectors

Model No.	Description	Expandable to max stations	Voltage
VS2672717-KG00	2-station PCB 9-PIN	4	24 VDC
VS2672718-KG00	2-station PCB 15-PIN	6	24 VDC
VS2672705-KG00	4-station PCB 15-PIN	7	24 VDC
VS2672719-KG00	2-station PCB 25-PIN	6	24 VDC
VS2672700-KG00	4-station PCB 25-PIN	8	24 VDC
VS2672701-KG00	6-station PCB 25-PIN	10	24 VDC
VS2672702-KG00	8-station PCB 25-PIN	12	24 VDC
VS2672706-KG00	10-station PCB 44-PIN	14	24 VDC
VS2672704-KG00	12-station PCB 44-PIN	16	24 VDC

Connector kits

Model No.	Description	Voltage
VS2672742-KG00	E-Connector Kit 1" Conduit entry	115 VAC or 24 VDC
VS2672743-KG00	E-Connector Kit M23 connector	115 VAC or 24 VDC

Output boards with conduit connectors

Model No.	Description	Expandable to max stations	Voltage
VS2672708-KG00	2-station PCB	6	115 VAC or 24 VDC
VS2672709-KG00	4-station PCB	8	115 VAC or 24 VDC
VS2672710-KG00	6-station PCB	10	115 VAC or 24 VDC
VS2672711-KG00	8-station PCB	12	115 VAC or 24 VDC






Expansion output boards for D-sub connectors

Model No.	Description	Voltage
VS2672755-KG00	Multipole PCB 1 station	24 VDC
VS2672713-KG00	Multipole PCB 2 station	24 VDC

Expansion output boards for 1" conduit & M23






Model No.	Description	Voltage
VS2672756-KG00	Multipole PCB 1 station	115 VAC or 24 VDC
VS2672715-KG00	Multipole PCB 2 station	115 VAC or 24 VDC

Multipole Accessories with IP65*

D-Sub connector 9-pin	D-Sub connector 15-pin	D-Sub connector 25-pin	D-Sub connector 44-pin	M23 connector 19-pin
				
VS2672910-KG00 3' (1m)	VS2672915-KG00 3' (1m)	V11569-E01 3' (1m)	V11570-E01 3' (1m)	VS2672943-KG00 3' (1m)
VS2672911-KG00 10' (3m)	VS2672916-KG00 10' (3m)	V11569-E03 10' (3m)	V11570-E03 10' (3m)	VS2672944-KG00 10' (3m)
VS2672912-KG00 16' (5m)	VS2672917-KG00 16' (5m)	V11569-E05 16' (5m)	V11570-E05 16' (5m)	VS2672945-KG00 16' (5m)






* Required for ATEX.

Accessories

DIN EN 50 022 rail (1 meter)	DIN-rail mounting kit	Blanking disc to modular sub-base	Extended manual override kit	Blanking plug for base connector hole ¹⁾
				
V10009-C00 (35 x 7.5 mm)	V70531-KA0	V70522-K00 (Ports 1, 3, 5) V70523-K00 (Ports 12/14)	VS2672960-KG00	VS2672914-KG00

1) When V44/V45 valves are fitted on VS26 subbase

Sandwich plates and base accessories

Single pressure regulator plate	Double pressure regulator plate	Sandwich flow control	Blanking plate	Replacement gauge
				
VS2672900-KG10 (port 1) VS2672900-KG20 (port 2) VS2672900-KG30 (port 4)	VS2672900-KG40 (port 2+4)	VS2672901-KG00 (ports 3+5)	VS2672904-KG00	V70534-500

MINI ISO VALVES V40/V41 SERIES

5/2 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 18 mm

- » High performance, compact design
- » Flexible sub-base system
- » Multipressure system capability
- » Wide range of accessories
- » Dual spool technology
 - V40 Glandless spool and sleeve (long life)
 - V41 Softseal spool (high flow)
- » Easy to convert from internal to external pilot supply

Technical Data

Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

Operation:

V40: Glandless spool valve, solenoid pilot or air pilot actuated
 V41: Softseal spool valve, solenoid pilot or air pilot actuated

Operating pressure:

Maximum pressure
 Softseal & glandless spools
 145 psig (10 bar) internal pilot supply
 Glandless spools

232 psig (16 bar) main valve with 145 psig (10 bar) maximum for external pilot supply

Ambient temperature*:

5°F to +122°F (-15°C to +50°C) V40/V41 sol. and V41 air pilot models.
 5°F* to +176°F (-15°C to +80°C) V40 air pilot models



*Consult our Application Engineering for use below 36°F (+2°C)






→ Online at norgren.com

Models – Softseal Spool (V41 Series)




2 x 3/2 NC/NC valves – Solenoid/solenoid actuated valves with internal pilot supply

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
	Soft Seal	18mm	0.62	36-145	24 VDC		Not included
V415A11D-C318A	Soft Seal	18mm	0.62	36-145	115V 50/60Hz	VZC7L2C1-C318A	Not included

5/2 Valves – Solenoid/spring actuated valves with internal pilot supply

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
	Soft Seal	18 mm	0.66	29-145	24 VDC		
V415517D-C318B	Soft Seal	18 mm	0.66	29-145	110/120 VAC	VZC7L2C1-C318A	V10027-D00

5/2 Valves – Solenoid/solenoid actuated valves with internal pilot supply




Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
	Soft Seal	18 mm	0.66	29-145	24 VDC		
V415511D-C318B	Soft Seal	18 mm	0.66	29-145	110/120 VAC	VZC7L2C1-C318A	V10027-D00

MINI ISO VALVES V40/V41 SERIES


5/2 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 18 mm

Models – Softseal Spool (V41 Series) (cont.)

5/3 Valves – All ports blocked, Solenoid/solenoid actuated valves internal pilot supply


Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
							
V415611D-C313B	Soft Seal	18mm	0.69	29-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V415611D-C318B	Soft Seal	18mm	0.69	29-145	115V 50/60Hz	VZC7L2C1-C318A	V10027-D00

5/2 Valves – Air pilot/air pilot air actuated valves

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Valve body	Solenoid	Connector
								
V415533A-X0020*	Soft Seal	18 mm	0.66	26" Hg - 145	NA	NA	NA	NA

* Requires modular sub-base V70426-P5F

5/2 Valves – Air pilot/spring actuated valves

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Valve body	Solenoid	Connector
								
V415537A-X0090*	Soft Seal	18 mm	0.66	26" Hg - 145	NA	NA	NA	NA




* Requires modular sub-base V70426-P5F

Mini ISO Valves V40/V41 Series




5/2 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 18 mm

Models – Glandless Spool (V40 Series)


5/2 Valves – Solenoid/spring actuated valves with internal pilot supply

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
							
V405516D-C313B	Glandless	18 mm	0.58	29-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V405516D-C318B	Glandless	18 mm	0.58	29-145	110/120 VAC	VZC7L2C1-C318A	V10027-D00

5/2 Valves – Double solenoid actuated valves with internal pilot supply


Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Solenoid	Connector
							
V405511D-C313B	Glandless	18 mm	0.58	29-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V405511D-C318B	Glandless	18 mm	0.58	29-145	110/120 VAC	VZC7L2C1-C318A	V10027-D00

5/2 Valves – Pilot air/air actuated valves

Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Valve body	Solenoid	Connector
								
V405533A-X0020*	Glandless	18 mm	0.58	26" Hg - 232	NA	NA	NA	NA

* Requires modular sub-base V70426-P5F

5/2 Valves – Pilot air/spring actuated valves





Model Number	Spool type	Size	Flow CV	Operating pressure PSI	Voltage	Valve body	Solenoid	Connector
								
V405537A-X0090*	Glandless	18 mm	0.58	26" Hg - 232	NA	NA	NA	NA

* Requires modular sub-base V70426-P5F

Mini ISO Valves V40/V41 Series





5/2 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 18 mm

Bases and Accessories






















Flow regulator plate	DIN-rail mounting kit	Blanking plate for unused station	Blanking disk to modular sub-base (qty 1)
			
V70428-K50 (Ports 3+5 reg.)	V70531-KA0	V70400-K50	V70422-K50 (Ports 1, 3 or 5)

Single station

Accessories

Model No.	Description	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow fitting	Muffler
						
V70401-P5B	Single station side ported with pilot ports – 1/8"	1/8	1/4"	C24250418	C24470418	MS001A

Modular sub-bases and end plates

Model No.	Description	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow fitting	Muffler
						
V70425-P5F	Modular sub-base side ported (PTF) without pilot ports – 1/8"	1/8	1/4"	C24250418	C24470418	MS001A
V70426-P5F	Modular sub-base side ported (PTF) with pilot ports – 1/8"	1/8	1/4"	C24250418	C24470418	MS001A
						
V70425-15F	Modular sub-base side ported (PIF) without pilot ports – 1/4"	1/4	3/8"	–	–	–
						
V70432-P5F	Double modular sub-base side ports w/o pilot ports – 1/8" PTF	1/8	1/4"	C24250418	C24470418	MS001A
						
V70424-R5C	End plate kit. End ported – 1/4" PTF	1/4	3/8"	C24250628	C24470628	MS002A
						
V70431-P5F	End plate kit w/ 2 side ported valve stations w/o pilot ports – Inlet ports 1/4" PTF Exhaust ports 1/8" PTF	1/4 1/8	3/8" 1/4"	C24250628 C24250418	C24470628 C24470418	MS002A MS001A
						
V70429-P50	Intermediate supply/exhaust manifold – 1/8" NPTF	1/4	3/8"	C24250628	C24470628	MS002A

Valve and Manifold Gaskets

Part Number	Description
94.00367	V40/41 Valve to V40/41 Manifold Gasket
94.00517	V40/41 Manifold to V40/41 Manifold Gasket

Mini ISO Valves V44/V45 Series

5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

- » High performance, compact design
- » Flexible sub-base system
- » Multipressure system capability
- » Wide range of accessories
- » Dual spool technology
- » V44 Glandless spool and sleeve (long life)
- » V45 Softseal spool (high flow)
- » Easy to convert from internal to external pilot supply
- » Valve exchange under pressure

Technical Data

Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

Operation:

V44: Glandless spool valve, solenoid pilot or air pilot actuated
V45: Softseal spool valve, solenoid pilot or air pilot actuated

Operating pressure:

Softseal & glandless spools
145 psig (10 bar) internal pilot supply
Glandless spools
232 psig (16 bar) main valve with
145 psig (10 bar) maximum for
external pilot supply

Ambient temperature*:

-15°C to +50°C V44/V45 solenoid and
V45 air pilot 5°F to +122°F (-15°C to
+50°C) V44/V45 sol. and V45 air pilot
models 5°F to +176°F (-15°C to +80°C)
V44 air pilot models



*Consult our Application Engineering for use
below 36° F (+2°C)

→ Online at
norgren.com




Models – Softseal Spool (V45 Series)

5/2 valves – Solenoid/spring actuated valves with internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
	26mm	1.2	23.2-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V45A517D-C318B	26mm	1.2	23.2-145	115V 50/60 Hz	VZC7L2C1-C318A	V10027-D00
	26mm	1.2	23.2-145	24 VDC	VZC7L2C1-C313A	Not included
V45A517D-C318A	26mm	1.2	23.2-145	115V 50/60Hz	VZC7L2C1-C318A	Not included

5/2 valves – Double solenoid actuated valves internal pilot supply



Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
	26mm	1.2	29-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V45A511D-C318B	26mm	1.2	29-145	115V 50/60 Hz	VZC7L2C1-C318A	V10027-D00

Mini ISO Valves V44/V45 Series




5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

Models – Softseal Spool (V45 Series) cont.



5/2 valves – Double solenoid/spring actuated valves internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V45A511D-C313A	26mm	1.2	29-145	24 VDC	VZC7L2C1-C313A	Not included


5/3 Valves – All ports blocked, Solenoid valves internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V45A611D-C318B	26mm	1.1	29-145	115V 50/60 Hz	VZC7L2C1-C318A	V10027-D00


5/3 Valves – All ports blocked, Solenoid actuated valves internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V45A611D-C313A	26mm	1.1 (1100)	29-145	24 VDC	VZC7L2C1-C313A	Not included







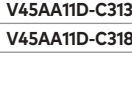
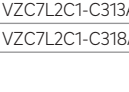

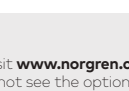
5/2 Valves – Pilot air/air actuated valves

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Valve body	Solenoid	Connector
							
V45A533A-X0020	26 mm	1.2	26" - 145	NA	NA	NA	NA

5/2 Valves – Pilot air/spring actuated valves

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Valve body	Solenoid	Connector
							
V45A537A-X0090	26 mm	1.2	26" - 145	NA	NA	NA	NA

2 x 3/2 NC/NC Valves – Solenoid/spring actuated valves with internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V45AA11D-C313B	18mm	1.1	43.5-145	24 VDC	VZC7L2C1-C313A	V10027-D00
						
V45AA11D-C318B	18mm	1.1	43.5-145	115V 50/60Hz	VZC7L2C1-C318A	V10027-D00
						
V45AA11D-C313A	18mm	1.1	43.5-145	24 VDC	VZC7L2C1-C313A	Not included
						
V45AA11D-C318A	18mm	1.1	43.5-145	115V 50/60Hz	VZC7L2C1-C318A	Not included

Mini ISO Valves V44/V45 Series

5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

Additional connectors

Part Number	Description
V10027-D00	Cable grip
V10013-D03	10 ft. molded cable, 0-240 VAC/ VDC
V10012-D13	Cable grip w/indicator light, 24 VAC/ VDC
V10012-D18	Cable grip w/indicator light, 120 VAC/ VDC
V10014-D03	10 ft. molded cable w/ indicator light, surge suppression, 24 VAC/ VDC
V10015-D03	10 ft. molded cable with indicator light, 110V/50 Hz-120V.60Hz

Valve and Manifold Gaskets




Part Number	Description
65.25190	V44/45 Valve to V44/45 Manifold Gasket
94.00031	V44/45 Manifold to V44/45 Manifold Gasket

Mini ISO Valves V44/V45 Series




5/2 and 5/3 Valves – Solenoid and pilot actuated – ISO 15407-1/VDMA 24 563 – Size 26 mm

Model - Glandless Spool (V44 Series)






5/2 Valves – Solenoid/spring actuated valves with internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V44A517D-C313B	26mm	0.92	23.2-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V44A517D-C318B	26mm	0.92	23.2-145	115V 50/60Hz	VZC7L2C1-C318A	V10027-D00





5/2 Valves – Double solenoid actuated valves with internal pilot supply

Model No.	Size	Flow Cv	Operating pressure psi	Voltage	Solenoid	Connector
						
V44A511D-C313B	26mm	0.92	29-145	24 VDC	VZC7L2C1-C313A	V10027-D00
V44A511D-C318B	26mm	0.92	29-145	115V 50/60Hz	VZC7L2C1-C318A	V10027-D00

Bases and accessories













Single pressure regulator plate	Regulator plate replacement gauge	Flow regulator plate	Blanking plate for unused station	Blanking disk to modular sub-base (qty 1)
				
V70527-KA1 (Port 1 reg.)	V70534-500	V70528-KA0 (Ports 3+5 reg.)	V70500-KA0	V70522-K00 (Ports 1,3,or 5)

Single Station

Model No.	Description	Thread	Tube Size	Straight Fitting	90° swivel elbow fitting	Muffler
						
V70501-RAB	Single station side ported with pilot ports – 1/4"	1/4" NPT	3/8"	C24250628	C24470628	MS002A

Accessories

Modular sub-bases and end plates

Model No.	Description	Thread	Tube Size	Straight Fitting	90° swivel elbow fitting	Muffler
						
V70525-2AF	Modular sub-base side ported (PIF) without pilot ports – 3/8"	1/4" NPT	3/8"	NA	NA	NA
V70525-RAF	Modular sub-base side ported (PTF) without pilot ports – 1/4"	1/8" NPT	1/4"	C24250418	C24470418	MS001A
						
V70526-RAF	Modular sub-base ported (NPTF) with pilot ports – 1/4"	1/4" NPT	3/8"	C24250628	C24470628	MS002A
						
V70524-SAC	End plate kit. End ported – 3/8"	1/4" NPT	3/8"	C24250628	C24470628	MS002A

ISO SOLENOID AND PILOT ACTUATED SPOOL VALVES

Subbase 5/2 and 5/3, ISO #1 and ISO #2

- » Specially coated glandless spool and sleeve for extremely long life
- » Available with integral flow regulators on ISO #1 and #2 sizes
- » Low power solenoids and manual override as standard
- » Wide range of sub-bases and accessories
- » Meet 5599/1 ISO Standard

Technical Data

Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

Operation:

Glandless spool valve, solenoid pilot or air pilot actuated

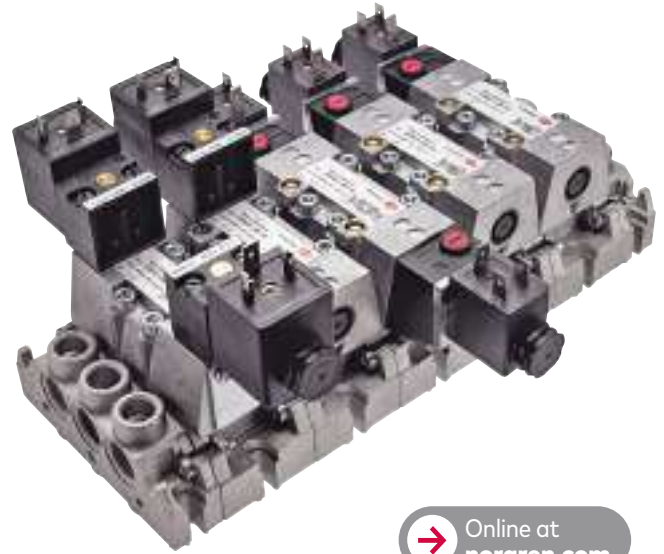
Maximum pressure:

145 psig (10 bar) internal pilot supply
232 psig (16 bar) main valve with 145 psig (10 bar) maximum for external pilot supply

Ambient temperature*:

5°F to 122°F (-15°C to 50°C)
solenoid pilot actuated valves
5°F to 176°F (-15°C to 80°C)
air pilot actuated valves









*Consult our Technical Service for use below 36°F (2°C)



➔ Online at norgren.com

Models – 5/2 valves

5/2 Valves – solenoid/air spring actuated with internal pilot supply





Model No.	Size	Flow Cv	Integral flow control	Operating pressure psi	Voltage	Valve body	Coil	Connector
								
SXE9573-A80-00-13JB	ISO 1	1.2	Yes	14.5 - 145	24 VDC	SXE9573-A80-00K	54469-02	54934-01
SXE9573-A70-00-13JB	ISO 1	1.2	No	14.5 - 145	24 VDC	SXE9573-A70-00K	54469-02	54934-01
SXE9573-A80-00-18JB	ISO 1	1.2	Yes	14.5 - 145	115V 50/60 Hz	SXE9573-A80-00K	54469-03	54934-01
SXE9573-A70-00-18JB	ISO 1	1.2	No	14.5 - 145	115V 50/60 Hz	SXE9573-A70-00K	54469-03	54934-01
								
SXE9574-A80-00-13JB	ISO 2	2.4	Yes	14.5 - 145	24 VDC	SXE9574-A80-00K	54469-02	54934-01
SXE9574-A80-00-18JB	ISO 2	2.4	Yes	14.5 - 145	115V 50/60 Hz	SXE9574-A80-00K	54469-03	54934-01





ISO SOLENOID AND PILOT ACTUATED SPOOL VALVES

Subbase 5/2 and 5/3, ISO #1 and ISO #2





Models – 5/2 valves





5/2 Valves – Double solenoid actuated with internal pilot supply

Model No.	Size	Flow Cv	Integral flow control	Operating pressure psi	Voltage	Valve body	Coil	Connector
								
SXE0573-A60-00-13JB	ISO 1	1.2	Yes	29 - 145	24 VDC	SXE0573-A60-00K	54469-02	54934-01
SXE0573-A50-00-13JB	ISO 1	1.2	No	29 - 145	24 VDC	SXE0573-A50-00K	54469-02	54934-01
SXE0573-A60-00-18JB	ISO 1	1.2	Yes	29 - 145	115V 50/60 Hz	SXE0573-A60-00K	54469-03	54934-01
SXE0573-A50-00-18JB	ISO 1	1.2	No	29 - 145	115V 50/60 Hz	SXE0573-A50-00K	54469-03	54934-01

								
SXE0574-A60-00-13JB	ISO 2	2.4	Yes	29 - 145	24 VDC	SXE0574-A60-00K	54469-02	54934-01
SXE0574-A60-00-18JB	ISO 2	2.4	Yes	29 - 145	115V 50/60 Hz	SXE0574-A60-00K	54469-03	54934-01


5/2 Valves – Double solenoid actuated with internal pilot supply

Model No.	Size	Flow Cv	Integral flow control	Operating pressure psi	Voltage	Valve body	Coil	Connector
								
SXE9673-A60-00-13JB³	ISO 1	1.2	Yes	29 - 145	24 VDC	SXE9673-A60-00K	54469-02	54934-01
SXE9673-A60-00-18JB³	ISO 1	1.2	Yes	29 - 145	115V 50/60 Hz	SXE9673-A60-00K	54469-03	54934-01


								
SXE9674-A60-00-13JB³	ISO 2	2.4	Yes	29 - 145	24 VDC	SXE9674-A60-00K	54469-02	54934-01
SXE9674-A60-00-18JB³	ISO 2	2.4	Yes	29 - 145	115V 50/60 Hz	SXE9674-A60-00K	54469-03	54934-01

3 All ports blocked


5/2 Valves – Pilot air/spring actuated

Model No.	Size	Flow Cv	Integral flow control	Operating pressure psi
				
SXP9573-170-00	ISO 1	1.2	No	26"HG - 232

5/2 Valves – Pilot air/air actuated

Model No.	Size	Flow Cv	Integral flow control	Operating pressure psi
				
SXE0573-170-00	ISO 1	1.2	No	26"HG - 232

VDMA 24 345 Base Range and Accessories













	
RM1A-8B	Single pressure regulator, port 1 regulated 1/4"
RM2A-8B	Single pressure regulator, port 1 regulated 3/8"

ISO SOLENOID AND PILOT ACTUATED SPOOL VALVES

Subbase 5/2 and 5/3, ISO #1 and ISO #2

Modular sub-bases and end plates

Accessories

Model No.	Description	Size	Thread	Tube Size	Straight Fitting	90° swivel elbow fitting	Muffler
							
C/P19126	Form 'A' single station sub-base, side ported – 1/4"	ISO 1	1/8" NPT	1/4"	C24250418	C24470418	MS001A
C/P19132	Form 'A' single station sub-base, side ported – 3/8"	ISO 2	1/4" NPT	3/8"	C24250628	C24470628	MS002A
C/P19138	Form 'A' single station sub-base, side ported – 1/2"	ISO 3	1/2" NPT	1/2"	C24250748	C24470748	MS004A
							
239-238B	Form 'C' modular sub-base, bottom ported – 1/4"	ISO 1	1/4" NPT	3/8"	C24250628	C24470628	MS002A
							
239-289B	Form 'D' modular sub-base end plates – 1/4"	ISO 1	1/4" NPT	3/8"	C24250628	C24470628	MS002A

Gaskets

Part number	Function	Size
65.25057	External Pilot Gasket	ISO Size 1
65.25178	External Pilot Gasket	ISO Size 2
94.00224	External Pilot Gasket	ISO Size 3

Coils

Standard (22 mm coil industrial standard)				
Model	Voltage	Coil code	Power inrush/hold	Coil retention nut
54469-01	12 VDC	12J	2 W	59.05261
54469-02	24 VDC	13J	2 W	59.05261
54469-03	110/120 V 50/60 Hz	18J	4/2.5 VA	59.05261
54469-08	220/240 V 50/60 Hz	19J	6/5 VA	59.05261

Connectors

Part number	Code
3-Pin Industrial Standard	22mm
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Downstream solutions



Safe and reliable operation in chemical and petrochemical applications is increasingly vital to plant operations.

Our extensive range of high performance products includes the world-leading Herion pilot and control valves, created specifically for the chemical and process industries.

- > Global certifications including SIL, ATEX, IECEx, TR-CU, CSA, CCOE, FM & Inmetro
- > High functionality
- > Energy saving modular solenoid systems
- > Compact design
- > Resilient in hazardous environments



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Incorporating



IN-LINE VALVES V60 - 62 SERIES

3/2, 5/2, 5/3 solenoid actuated 1/8" to 3/8"



- » Long life
- » High flow rate
- » Low power consumption (2W)

Technical Data

Medium: Compressed air, filtered to 50 µm, lubricated or non-lubricated.

Operation: See tables

Mounting: Individual or fixed length manifold

Connection: See tables

Operating pressure: 145 psi (10 bar)

Flow direction:

Internal pilot supply: fixed
External pilot supply: optional

Flow: See tables

Ambient temperature:

14°F to 122°F (-10°C to 50°C)
Consult our Technical Service for use below 36°F (2°C).


Materials:

Housing and base plate: aluminum
Spool: stainless steel
Piston, spacers and cover: synthetic material
Static and dynamic seals: NBR
Screws: zinc plated
Springs: stainless steel




Models – 3/2 Valves


Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 24 VDC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P417A-A213JB ¹	1/8	0.75	29 to 145	locking	V60P417A-A2000A	54469-02	54934-01
V60P417A-A313JB ¹	1/8	0.75	29 to 145	non-locking	V60P417A-A3000A	54469-02	54934-01
V61R417A-A213JB ¹	1/4	1.30	29 to 145	locking	V61R417A-A2000A	54469-02	54934-01
V61R417A-A313JB ¹	1/4	1.30	29 to 145	non-locking	V61R417A-A3000A	54469-02	54934-01
V62S417A-A313JB ¹	3/8	2.60	29 to 145	non-locking	V62S417A-A3000A	54469-02	54934-01


Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 24 VDC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P417A-A313JA ¹	1/8	0.75	29 to 145	locking	V60P417A-A2000A	54469-02	Not included
V60P417A-A313JA ¹	1/8	0.75	29 to 145	non-locking	V60P417A-A3000A	54469-02	Not included
V61R417A-A213JA ¹	1/4	1.30	29 to 145	locking	V61R417A-A2000A	54469-02	Not included
V61R417A-A313JA ¹	1/4	1.30	29 to 145	non-locking	V61R417A-A3000A	54469-02	Not included
V62S417A-A313JA ¹	3/8	2.60	29 to 145	non-locking	V62S417A-A3000A	54469-02	Not included

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 120 VAC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P417A-A218JB ¹	1/8	0.75	29 to 145	locking	V60P417A-A2000A	54469-03	54934-01
V60P417A-A318JB ¹	1/8	0.75	29 to 145	non-locking	V60P417A-A3000A	54469-03	54934-01
V61R417A-A218JB ¹	1/4	1.30	29 to 145	locking	V61R417A-A2000A	54469-03	54934-01
V61R417A-A318JB ¹	1/4	1.30	29 to 145	non-locking	V61R417A-A3000A	54469-03	54934-01
V62S417A-A318JB ¹	3/8	2.60	29 to 145	non-locking	V62S417A-A3000A	54469-03	54934-01

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 120 VAC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P417A-A218JA ¹	1/8	0.75	29 to 145	locking	V60P417A-A2000A	54469-03	Not included
V60P417A-A318JA ¹	1/8	0.75	29 to 145	non-locking	V60P417A-A3000A	54469-03	Not included
V61R417A-A218JA ¹	1/4	1.30	29 to 145	locking	V61R417A-A2000A	54469-03	Not included
V61R417A-A318JA ¹	1/4	1.30	29 to 145	non-locking	V61R417A-A3000A	54469-03	Not included





¹ Normally closed

IN-LINE VALVES V60 - 62 SERIES




3/2, 5/2, 5/3 solenoid actuated 1/8" to 3/8"

Models – 5/2 Valves





Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 24 VDC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A213JB	1/8	0.75	29 to 145	locking	V60P517A-A2000A	54469-02	54934-01
V60P517A-A313JB	1/8	0.75	29 to 145	non-locking	V60P517A-A3000A	54469-02	54934-01
V61R517A-A313JB	1/4	1.30	29 to 145	non-locking	V61R517A-A3000A	54469-02	54934-01
V61R517A-A213JB	1/4	1.30	29 to 145	locking	V61R517A-A2000A	54469-02	54934-01
V62S517A-A313JB	3/8	2.60	29 to 145	non-locking	V62S517A-A3000A	54469-02	54934-01




Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 24 VDC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A213JA	1/8	0.75	29 to 145	locking	V60P517A-A2000A	54469-02	Not included
V60P517A-A313JA	1/8	0.75	29 to 145	non-locking	V60P517A-A3000A	54469-02	Not included
V61R517A-A313JA	1/4	1.30	29 to 145	non-locking	V61R517A-A3000A	54469-02	Not included
V61R517A-A213JA	1/4	1.30	29 to 145	locking	V61R517A-A2000A	54469-02	Not included
V62S517A-A313JA	3/8	2.60	29 to 145	non-locking	V62S517A-A3000A	54469-02	Not included

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 120 VAC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A218JB	1/8	0.75	29 to 145	locking	V60P517A-A2000A	54469-03	54934-01
V60P517A-A318JB	1/8	0.75	29 to 145	non-locking	V60P517A-A3000A	54469-03	54934-01
V61R517A-A318JB	1/4	1.30	29 to 145	non-locking	V61R517A-A3000A	54469-03	54934-01
V61R517A-A218JB	1/4	1.30	29 to 145	locking	V61R517A-A2000A	54469-03	54934-01
V62S517A-A318JB	3/8	2.60	29 to 145	non-locking	V62S517A-A3000A	54469-03	54934-01

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 120 VAC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A218JA	1/8	0.75	29 to 145	locking	V60P517A-A2000A	54469-03	Not included
V60P517A-A318JA	1/8	0.75	29 to 145	non-locking	V60P517A-A3000A	54469-03	Not included
V61R517A-A318JA	1/4	1.30	29 to 145	non-locking	V61R517A-A3000A	54469-03	Not included
V61R517A-A218JA	1/4	1.30	29 to 145	locking	V61R517A-A2000A	54469-03	Not included
V62S517A-A318JA	3/8	2.60	29 to 145	non-locking	V62S517A-A3000A	54469-03	Not included

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Coils





Standard (22 mm coil industrial standard)			
Model	Voltage	Coil code	Power inrush/hold
54469-01	12 VDC	12J	2 W
54469-02	24 VDC	13J	2 W
54469-03	110/120 V 50/60 Hz	18J	4/2.5 VA
54469-08	220/240 V 50/60 Hz	19J	6/5 VA

IN-LINE VALVES V60 - 62 SERIES




3/2, 5/2, 5/3 solenoid actuated 1/8" to 3/8"

Models – 5/2 Valves (cont.)

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 12 VDC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A212JB	1/8	0.75	29 to 145	Locking	V60P517A-A2000A	54469-01	54934-01
V60P517A-A312JB	1/8	0.75	29 to 145	Non-Locking	V60P517A-A3000A	54469-01	54934-01
V61R517A-A312JB	1/4	1.3	29 to 145	Non-Locking	V61R517A-A3000A	54469-01	54934-01
V61R517A-A212JB	1/4	1.3	29 to 145	Locking	V61R517A-A2000A	54469-01	54934-01

Solenoid actuated/spring return, internal pilot, industrial standard 22mm coil, 12 VDC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P517A-A212JA	1/8	0.75	29 to 145	Locking	V60P517A-A2000A	54469-01	Not included
V60P517A-A312JA	1/8	0.75	29 to 145	Non-Locking	V60P517A-A3000A	54469-01	Not included
V61R517A-A312JA	1/4	1.3	29 to 145	Non-Locking	V61R517A-A3000A	54469-01	Not included
V61R517A-A212JA	1/4	1.3	29 to 145	Locking	V61R517A-A2000A	54469-01	Not included

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Coils





Standard (22 mm coil industrial standard)			
Model	Voltage	Coil code	Power inrush/hold
54469-01	12 VDC	12J	2 W
54469-02	24 VDC	13J	2 W
54469-03	110/120 V 50/60 Hz	18J	4/2.5 VA
54469-08	220/240 V 50/60 Hz	19J	6/5 VA

IN-LINE VALVES V60 - 62 SERIES




3/2, 5/2, 5/3 solenoid actuated 1/8" to 3/8"

Models – 5/2 Valves (cont.)





Solenoid actuated/solenoid return, internal pilot, industrial standard 22mm coil, 24 VDC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P511A-A213JB	1/8	0.75	29 to 145	locking	V60P511A-A2000A	54469-02	54934-01
V60P511A-A313JB	1/8	0.75	29 to 145	non-locking	V60P511A-A3000A	54469-02	54934-01
V61R511A-A213JB	1/4	1.30	29 to 145	locking	V61R511A-A2000A	54469-02	54934-01
V61R511A-A313JB	1/4	1.30	29 to 145	non-locking	V61R511A-A3000A	54469-02	54934-01
V62S511A-A313JB	3/8	2.50	29 to 145	non-locking	V62S511A-A3000A	54469-02	54934-01




Solenoid actuated/solenoid return, internal pilot, industrial standard 22mm coil, 24 VDC, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil
						
V60P511A-A213JA	1/8	0.75	29 to 145	locking	V60P511A-A2000A	54469-02
V60P511A-A313JA	1/8	0.75	29 to 145	non-locking	V60P511A-A3000A	54469-02
V61R511A-A213JA	1/4	1.30	29 to 145	locking	V61R511A-A2000A	54469-02
V61R511A-A313JA	1/4	1.30	29 to 145	non-locking	V61R511A-A3000A	54469-02
V62S511A-A313JA	3/8	2.50	29 to 145	non-locking	V62S511A-A3000A	54469-02

Solenoid actuated/solenoid return, internal pilot, industrial standard 22mm coil, 120 VAC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P511A-A218JB	1/8	0.75	29 to 145	locking	V60P511A-A2000A	54469-03	54934-01
V60P511A-A318JB	1/8	0.75	29 to 145	non-locking	V60P511A-A3000A	54469-03	54934-01
V61R511A-A218JB	1/4	1.30	29 to 145	locking	V61R511A-A2000A	54469-03	54934-01
V61R511A-A318JB	1/4	1.30	29 to 145	non-locking	V61R511A-A3000A	54469-03	54934-01
V62S511A-A318JB	3/8	2.60	29 to 145	non-locking	V62S511A-A3000A	54469-03	54934-01

Solenoid actuated/solenoid return, internal pilot, industrial standard 22mm coil, 120 VAC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil
						
V60P511A-A218JA	1/8	0.75	29 to 145	locking	V60P511A-A2000A	54469-03
V60P511A-A318JA	1/8	0.75	29 to 145	non-locking	V60P511A-A3000A	54469-03
V61R511A-A218JA	1/4	1.30	29 to 145	locking	V61R511A-A2000A	54469-03
V61R511A-A318JA	1/4	1.30	29 to 145	non-locking	V61R511A-A3000A	54469-03
V62S511A-A318JA	3/8	2.60	29 to 145	non-locking	V62S511A-A3000A	54469-03

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Coils





Standard (22 mm coil industrial standard)			
Model	Voltage	Coil code	Power inrush/hold
54469-01	12 VDC	12J	2 W
54469-02	24 VDC	13J	2 W
54469-03	110/120V 50/60 Hz	18J	4/2.5 VA
54469-08	220/240V 50/60 Hz	19J	6/5 VA

IN-LINE VALVES V60 - 62 SERIES




3/2, 5/2, 5/3 solenoid actuated 1/8" to 3/8"

Models – 5/3 Valves





Solenoid actuated/spring centered, internal pilot, industrial standard 22mm coil, 120 VAC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P611A-A318JB ³	1/8	0.75	29 to 145	non-locking	V60P611A-A3000A	54469-03	54934-01
V61R611A-A318JB ³	1/4	1.30	29 to 145	non-locking	V61R611A-A3000A	54469-03	54934-01
V62S611A-A318JB ³	3/8	2.60	29 to 145	non-locking	V62S611A-A3000A	54469-03	54934-01




Solenoid actuated/spring centered, internal pilot, industrial standard 22mm coil, 120 VAC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil
						
V60P611A-A318JA ³	1/8	0.75	29 to 145	non-locking	V60P611A-A3000A	54469-03
V61R611A-A318JA ³	1/4	1.30	29 to 145	non-locking	V61R611A-A3000A	54469-03
V62S611A-A318JA ³	3/8	2.60	29 to 145	non-locking	V62S611A-A3000A	54469-03

Solenoid actuated/spring centered, internal pilot, industrial standard 22mm coil, 24 VDC voltage

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil	Connector
							
V60P611A-A313JB ³	1/8	0.75	29 to 145	non-locking	V60P611A-A3000A	54469-02	54934-01
V61R611A-A313JB ³	1/4	1.30	29 to 145	non-locking	V61R611A-A3000A	54469-02	54934-01
V62S611A-A313JB ³	3/8	2.60	29 to 145	non-locking	V62S611A-A3000A	54469-02	54934-01

Solenoid actuated/spring centered, internal pilot, industrial standard 22mm coil, 24 VDC voltage, without connector

Model No.	Port size NPT	Flow Cv	Operating pressure (psi)	Manual override	Valve body	Coil
						
V60P611A-A313JA ³	1/8	0.75	29 to 145	non-locking	V60P611A-A3000A	54469-02
V61R611A-A313JA ³	1/4	1.30	29 to 145	non-locking	V61R611A-A3000A	54469-02
V62S611A-A313JA ³	3/8	2.60	29 to 145	non-locking	V62S611A-A3000A	54469-02

3 All ports blocked

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Coils


Standard (22 mm coil industrial standard)			
Model	Voltage	Coil code	Power inrush/hold
54469-01	12 VDC	12J	2 W
54469-02	24 VDC	13J	2 W
54469-03	110/120 V 50/60 Hz	18J	4/2.5 VA
54469-08	220/240 V 50/60 Hz	19J	6/5 VA

IN-LINE VALVES V60 - 62 SERIES


3/2, 5/2, 5/3 air pilot actuated 1/8" to 3/8"

Models – 3/2 Valves

Air actuated/air return


Model No.	Port size	Flow Cv	Pilot port inch	Operating pressure (psig)
 V60P4DDA-XP0200	1/8	0.75	1/8	26" Hg to 145
V61R4DDA-XP0200	1/4	1.30	1/8	26" Hg to 145

Air actuated/spring return


Model No.	Port size	Flow Cv	Pilot port inch	Operating pressure (psig)
 V60P4D7A-XP0900	1/8	0.75	1/8	26" Hg to 145
V61R4D7A-XP0900	1/4	1.30	1/8	26" Hg to 145
V62S4D7A-XP0900	3/8	2.60	1/8	26" Hg to 145

Model - 5/2 Valves

Air actuated/air return


Model No.	Port size	Flow Cv	Pilot port inch	Operating pressure (psig)
 V60P5DDA-XP0200	1/8	0.75	1/8	26" Hg to 145
V61R5DDA-XP0200	1/4	1.30	1/8	26" Hg to 145
V62S5DDA-XP0200	3/8	2.60	1/8	26" Hg to 145

Air actuated/spring return

Model No.	Port size	Flow Cv	Pilot port inch	Operating pressure (psig)
 V60P5D7A-XP0900	1/8	0.75	1/8	26" Hg to 145
V61R5D7A-XP0900	1/4	1.30	1/8	26" Hg to 145
V62S5D7A-XP0900	3/8	2.60	1/8	26" Hg to 145

Model - 5/3 Valves

Air actuated/spring centered

Model No.	Port size	Flow Cv	Pilot port inch	Operating pressure (psig)
 V60P6DDA-XP0200 ³	1/8"	0.75	1/8	26" Hg to 145
V61R6DDA-XP0200 ³	1/4"	0.95	1/8	26" Hg to 145
V62S6DDA-XP0200 ³	3/8"	1.90	1/8	26" Hg to 145

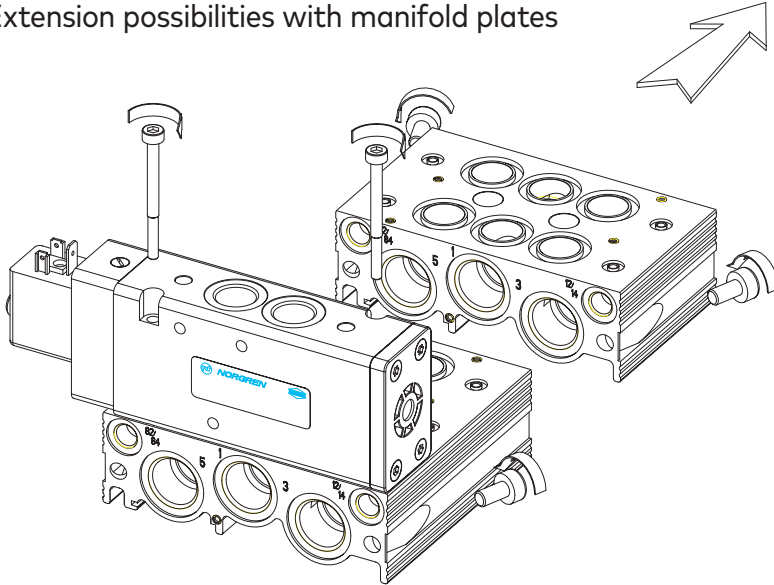
3 All ports blocked

IN-LINE VALVES V60 - 62 SERIES

3/2, 5/2, 5/3 Solenoid and Air actuated 1/8" to 3/8"

Dimensions

Extension possibilities with manifold plates



Manifold Plates*

Series	2 valve ports model number	3 valve ports Model number	Blanking plates	DIN rail kit
V60	2221032	2221033	0100561	0101796
V61	2221132	2221133	0100563	0101796
V62	2221232	2221233	0100565	0101796




*For 5-ported valves only.

IN-LINE VALVES V50-53 SERIES

3/2, 5/2, and 5/3 Solenoid and Air actuated 1/8" NPT to 1/2" NPT







Model - 3/2 Valves

V50 - 1/8" NPT, Internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V50P413A-A213AB ¹	Sol/Air spg	0.48	29 to 116	24 VDC	V12958-A13	V10027-D00
V50P413A-A218AB ¹	Sol/Air spg	0.48	29 to 116	110/120 VAC	V12958-A18	V10027-D00




Model - 5/2 Valves

V50 - 1/8" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V50P511A-A213AB	Sol/Sol	0.48	29 to 116	24 VDC	54469-02	54934-01
V50P511A-A218AB	Sol/Sol	0.48	29 to 116	110/120 VAC	54469-03	54934-01
						
V50P513A-A213AB	Sol/Spring	0.48	29 to 116	24 VDC	54469-02	54934-01
V50P513A-A218AB	Sol/Spring	0.48	29 to 116	110/120 VAC	54469-03	54934-01

Model - 5/3 Valves

V50 - 1/8" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V50P611A-A213AB ³	Sol/Sol	0.27	44 to 116	24 VDC	V12958-A13	V10027-D00
V50P611A-A218AB ³	Sol/Sol	0.27	44 to 116	110/120 VAC	V12958-A18	V10027-D00




- 1 Normally closed
3 All ports blocked

IN-LINE VALVES V50 - 53 SERIES

3/2, 5/2, and 5/3 Solenoid and Air actuated 1/8" NPT to 1/2" NPT







Model - 3/2 Valves

V51 - 1/4" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V51R417A-A213JB ¹	Sol/Spring	1.02	29 to 116	24 VDC	54469-02	54934-01
V51R417A-A218JB ¹	Sol/Spring	1.02	29 to 116	110/120 VAC	54469-03	54934-01




Model - 5/2 Valves

V51 - 1/4" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V51R511A-A213JB	Sol/Sol	1.02	29 to 116	24 VDC	54469-02	54934-01
V51R511A-A218JB	Sol/Sol	1.02	29 to 116	110/120 VAC	54469-03	54934-01
						
V51R517A-A213JB	Sol/Spring	1.02	29 to 116	24 VDC	54469-02	54934-01
V51R517A-A218JB	Sol/Spring	1.02	29 to 116	110/120 VAC	54469-03	54934-01

Model - 5/3 Valves

V51 - 1/4" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V51R611A-A213JB ³	Sol/Sol	0.75	44 to 116	24 VDC	54469-02	54934-01
V51R611A-A218JB ³	Sol/Sol	0.75	44 to 116	110/120 VAC	54469-03	54934-01

1 Normally closed



3 All ports blocked

IN-LINE VALVES V50 - 53 SERIES

3/2, 5/2, and 5/3 Solenoid and Air actuated 1/8" NPT to 1/2" NPT







Model - 3/2 Valves

V52 – 3/8" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V52S417A-A213JB ¹	Sol/Spring	1.7	29 to 116	24 VDC	54469-02	54934-01
V52S417A-A218JB ¹	Sol/Spring	1.7	29 to 116	110/120 VAC	54469-03	54934-01




Model - 5/2 Valves

V52 – 3/8" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V52S511A-A213JB	Sol/Sol	1.7	29 to 116	24 VDC	54469-02	54934-01
V52S511A-A218JB	Sol/Sol	1.7	29 to 116	110/120 VAC	54469-03	54934-01
						
V52S517A-A213JB	Sol/Spring	1.7	29 to 116	24 VDC	54469-02	54934-01
V52S517A-A218JB	Sol/Spring	1.7	29 to 116	110/120 VAC	54469-03	54934-01

Model - 5/3 Valves

V52 – 3/8" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V52S611A-A213JB ³	Sol/Sol	1.19	44 to 116	24 VDC	54469-02	54934-01
V52S611A-A218JB ³	Sol/Sol	1.19	44 to 116	110/120 VAC	54469-03	54934-01




- 1 Normally closed
3 All ports blocked

IN-LINE VALVES V50 - 53 SERIES

3/2, 5/2, and 5/3 Solenoid and Air actuated 1/8" NPT to 1/2" NPT







Model - 3/2 Valves

V53 - 1/2" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V53T417A-A213JB ¹	Sol/Spring	2.48	29 to 116	24 VDC	54469-02	54934-01
V53T417A-A218JB ¹	Sol/Spring	2.48	29 to 116	110/120 VAC	54469-03	54934-01




Model - 5/2 Valves

V53 - 1/2" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V53T511A-A213JB	Sol/Sol	2.48	29 to 116	24 VDC	54469-02	54934-01
V53T511A-A218JB	Sol/Sol	2.48	29 to 116	110/120 VAC	54469-03	54934-01
						
V53T517A-A213JB	Sol/Spring	2.48	29 to 116	24 VDC	54469-02	54934-01
V53T517A-A218JB	Sol/Spring	2.48	29 to 116	110/120 VAC	54469-03	54934-01

Model - 5/3 Valves

V53 - 1/2" NPT, internal pilot solenoid valves with locking overrides

Model No.	Actuation	Flow Cv	Operating pressure (psi)	Voltage	Coil	Connector
						
V53T611A-A213JB ³	Sol/Sol	1.91	44 to 116	24 VDC	54469-02	54934-01
V53T611A-A218JB ³	Sol/Sol	1.91	44 to 116	110/120 VAC	54469-03	54934-01

1 Normally closed

3 All ports blocked

IN-LINE VALVES V50 - 53 SERIES

3/2, 5/2, and 5/3 Solenoid and Air actuated 1/8" NPT to 1/2" NPT

V50 Series replacement coils

Model	Voltage	Power Inrush/hold
V12958-A12	12 VDC	2.5 W
V12958-A13	24 VDC	2.5 W
V12958-A18	110/120 VAC 50/60 Hz	3.7/3.1 VA

V51-V53 Series replacement coils

22 mm coil industrial standard		
Model	Voltage	Inrush/hold
54469-01	12 VDC	2 W
54469-02	24 VDC	2W
54469-03	110/120 V50/60Hz	4/2.5VA
54469-08	220/240 V 50/60 Hz	6/5 VA

V50 Series Replacement connectors

Model	Description	Connector Type
V10027-D00	0 to 240 VAC/ VDC, cable grip	DIN 43650 Table C
V10013-D03	0 to 240 VAC/ VDC, 6 ft. molded cable	DIN 43650 Table C
V10012-D13	12 to 24 VAC/ VDC w/indicator light	DIN 43650 Table C
V10012-D18	120 VAC/ VDC w/indicator light	DIN 43650 Table C

V51-V53 Series replacement connectors

Part number	Description	Connector Type
3-Pin Industrial Standard 22mm		
54934-01	Cable grip 0-240 VAC/ VDC	22 mm industrial standard
54934-21	6 ft molded cable, 0-240 VAC/ VDC	22 mm industrial standard
54934-08	Cable grip w/indicator light 24 VDC	22 mm industrial standard
54934-02	Cable grip w/indicator light 120 VAC	22 mm industrial standard
54934-05	1/2" Conduit 0-240 VAC/ VDC	22 mm industrial standard
54934-30	6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC	22 mm industrial standard
54934-35	6 ft molded cable w/indicator light, 120 VAC	22 mm industrial standard

Models - Manifolds and mounting kit

Number of stations	Valve type	V50 model	Port size inch	V51 model	Port size inch	V52 model	Port size inch	V53 model	Port size inch
2	5/2, 5/3		1/8		1/4		3/8		1/2
3	5/2, 5/3		1/8		1/4		3/8		1/2
4	5/2, 5/3		1/8		1/4		3/8		1/2

V50 - V53 Series blanking plates*

Model
V500551
V510551
V520551
V530551



*For 5-ported valves only.

NUGGET 200 SPOOL VALVES

1/4", 3/8", OR 1/2" PORTS, SOLENOID AND AIR ACTUATED VALVES

- » Long lasting spool design
- » High flow compact valves
- » Wide range of operators and voltages available
- » Three functional types: available in 3/2, 5/2, and 5/3 configurations

Technical Data

Medium:

Filtered and lubricated or non-lubricated compressed air or vacuum

Operation:

Spool valve solenoid pilot actuated.

Mounting:

Stacking:
through holes on manifold base
In-line: through holes in valve body

Port size:

PTF - 1/4", 3/8", 1/2"
ISO G - 1/4", 3/8"

Operating pressure:

Maximum 150 psig (10.3 bar).

Operating temperature:

-20° to 120°F (-29° to 50°C)
Consult Technical Service for use below 35°F (2°C).

Materials:





Body: Aluminum
Spool: Anodized aluminum
Solenoid Operator Base: plast
Plunger and spring: Stainless steel
Elastomers: Nitrile and special nitrile-based low-friction elastomers.







→ Online at
norgren.com

Model - 3/2 Valves

Air actuated/air return

Model No.	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
						
K41DA00KA2KA2	1.67	1/4	35 - 150	K41DA00	KA2	54237-59
K41EA00KA2KA2	1.67	3/8	35 - 150	K41EA00	KA2	54237-59

Air actuated/spring return

Model No.	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
						
K41DA00KS6KA2	1.67	1/4	45 - 150	K41DA00	KA2	54237-59
K41EA00KS6KA2¹	1.67	3/8	45 - 150	K41EA00	KA2	54237-59





1 Normally closed

NUGGET 200 SPOOL VALVES

1/4", 3/8", OR 1/2" PORTS, SOLENOID AND AIR ACTUATED VALVES





Model - 5/2 Valves

Air actuated/spring return

Model No.	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
						
K71DA00KS6KA2	1.67	1/4	35 - 150	K71DA00	KA2	54237-56
K71EA00KS6KA2	1.67	3/8	35 - 150	K71EA00	KA2	54237-56
K71EA01KS6KA1*	1.67	3/8	35 - 150	K71EA01	KA1	54237-56





* Low profile

Air actuated/air return

Model No.	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
						
K71DA00KA2KA2	1.67	1/4	15 - 150	K71DA00	KA2	54237-56
K71EA00KA2KA2	1.67	3/8	15 - 150	K71EA00	KA2	54237-56





Model - 5/3 Valves

Air actuated/air return

Model No.	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
						
K81DA00KACKAC ³	1.67	1/4	45 - 150	K81DA00	KAC	54237-56
K81EA00KACKAC ³	1.67	3/8	45 - 150	K81EA00	KAC	54237-56





Model - 3/2 Valve

Solenoid actuated/spring return

Model No.	Voltage	Connecton	Manual override	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
									
K41DA00KS6KV21W2	24 VDC	Cable grip	Locking	1.67	1/4	35 - 150	K41EA00	KV21W2	54237-59
K41EA00KS6KV21W2	24 VDC	Cable grip	Locking	1.67	3/8	35 - 150	K41EA00	KV21W2	54237-59
K41DA00KS6KV2	120 VAC	Cable grip	Locking	1.67	1/4	35 - 150	K41DA00	KV2	54237-59
K41EA00KS6KV2 ¹	120 VAC	Cable grip	Locking	1.67	3/8	35 - 150	K41EA00	KV2	54237-59

Model - 5/2 Valves

Solenoid actuated/spring return

Model No.	Voltage	Connecton	Manual override	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
									
K71DA00KS6KV21W2	24 VDC	Cable grip	Locking	1.67	1/4	35 - 150	K71DA00	KV21W2	54237-56
K71EA00KS6KV21W2	24 VDC	Cable grip	Locking	1.67	3/8	35 - 150	K71EA00	KV21W2	54237-56
K71FA00KS6KV21W2	24 VDC	Cable grip	Locking	1.67	1/2	35 - 150	K71FA00	KV21W2	54237-56
K71DA00KS6K32	120 VAC	1/2" conduit	Locking	1.67	1/4	35 - 150	K71DA00	K32	54237-56
K71DA00KS6KV2	120 VAC	Cable grip	Locking	1.67	1/4	35 - 150	K71DA00	KV2	54237-56
K71DA00KS6KV1	120 VAC	Cable grip	Non-locking	1.67	1/4	35 - 150	K71DA00	KV1	54237-56
K71EA00KS6K32	120 VAC	1/2" conduit	Locking	1.67	3/8	35 - 150	K71EA00	K32	54237-56
K71EA00KS6KV2	120 VAC	Cable grip	Locking	1.67	3/8	35 - 150	K71EA00	KV2	54237-56
K71EA00KS6KV1	120 VAC	Cable grip	Non-locking	1.67	3/8	35 - 150	K71EA00	KV1	54237-56
K71FA00KS6KV2	120 VAC	Cable grip	Locking	1.67	1/2	35 - 150	K71FA00	KV2	54237-56

¹ Normally closed





³ All ports blocked

NUGGET 200 SPOOL VALVES

1/4", 3/8", OR 1/2" PORTS, SOLENOID AND AIR ACTUATED VALVES





Model - 5/2 Valves

Solenoid actuated/solenoid return

Model No.	Voltage	Connection	Manual override	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
									
K71DA00KV2KV22W2	24 VDC	Cable grip	Locking	1.67	1/4	15 to150	K71DA00	KV21W2	54237-56
K71EA00KV2KV22W2	24 VDC	Cable grip	Locking	1.67	3/8	15 to150	K71EA00	KV21W2	54237-56
K71DA00KV2KV2	120 VAC	Cable grip	Locking	1.67	1/4	15 to150	K71DA00	KV2	54237-56
K71EA00KV2KV2	120 VAC	Cable grip	Locking	1.67	3/8	15 to150	K71EA00	KV2	54237-56

Model - 5/3 Valves







Solenoid actuates/spring return

Model No.	Voltage	Connection	Manual override	Flow Cv	Port size inch	Operating pressure psig	Body and spool	Operator	Repair kit
									
K81DA00KV0KV0 ³	120 VAC	Cable grip	Locking	1.67	1/4	15 - 150	K81DA00	KV0	54237-56
K81EA00KV0KV0 ³	120 VAC	Cable grip	Locking	1.67	3/8	15 - 150	K81EA00	KV0	54237-56

³ All ports blocked

Specials

Solenoid actuates/spring return

Model No.	Function	Description	Flow Cv	Port size	Operating pressure psig	Body and spool	Repair kit
							
K910014	5/2	Sol/Spring with Extended Manual Override 12 VDC Connector Down	1.67	3/8	35 - 150	K71EA00	54237-56
							
K910019	5/2	Sol/Spring with Extended Manual Override 12 VDC Connector Up	1.67	3/8	35 - 150	K71EA00	54237-56

Solenoid Coils

Part number	Description
54452-07	240V/60Hz-220V/50Hz, 7.5W
54452-01	120V/60Hz-110V/50Hz, 7.5W
54452-02	12 VDC, 7.5W
54452-03	24 VDC, 6W
54452-05	24 VAC

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

NUGGET 500 SPOOL VALVES

1/2" and 3/4" ports

- » Long lasting spool design
- » High flow compact valves
- » Wide range of operators available
- » Two functional types: available in 5/2, and 5/3 configurations

Technical Data

Medium:

Filtered, lubricated or non-lubricated, compressed air or Vacuum

Operation:

Spool valve air pilot actuated

Operating pressure:

Maximum 150 psig (10.3 bar).

Operating temperature

Solenoid Operated Valves:
-20° to 120°F (-29° to 50°C)

Air operated valves:



-20° to 160°F (-29° to 71°C)

*Consult our Technical Service for use below 36°F (2°C)



→ Online at
norgren.com





Models – 5/2 Air/Spring

Part Number	Function	Actuation	Port size NPT	Flow Cv	Operating pressure PSI	Repair kit
						
MN01CGA73A000	5/2	Air/ Air Ass't Spring	1/2	5.0	40-150	54677-60
MN01CHA73A000	5/2	Air/ Air Ass't Spring	1/2	5.0	40-150	54677-60

Models – 5/2 Air/Air

Part Number	Function	Actuation	Port size NPT	Flow Cv	Operating pressure PSI	Repair kit
						
MN01CGA23A000	5/2	Air/air	1/2	5.0	30 - 150	54677-60
MN01CHA23A000	5/2	Air/air	3/4	5.0	30 - 150	54677-60

Models – 5/3 Air/Air





Part Number	Function	Actuation	Port size NPT	Flow Cv	Operating pressure PSI	Repair kit
						
MN03CGA23F000 ³	5/3 APB	Air/air	1/2	5.0	20 - 150	54677-61
MN03CHA23F000 ³	5/3 APB	Air/air	3/4	5.0	20 - 150	54677-61

3 All ports blocked





NUGGET 500 SPOOL VALVES

1/2" and 3/4" ports




Models – 5/2 Solenoid/Spring

Part Number	Actuation	Function	Override	Port size NPT	Flow Cv	Operating press. PSI	Voltage	Coil	Connector	Repair kit
										
MN01CGA35AJJA	5/2	Solenoid / spring	Non-locking	1/2	5.0	40-150	120 VAC	54469-03	54934-01	54677-60
MN01CGA75AJJA	5/2	Solenoid / air assisted spring	Non-locking	1/2	5.0	40-150	120 VAC	54469-03	54934-01	54677-60
MN01CGA75AJPA	5/2	Solenoid / air assisted spring	Non-locking	1/2	5.0	40-150	24 VDC	54469-02	54934-01	54677-60
MN01CHA75AJJA	5/2	Solenoid / air assisted spring	Non-locking	3/4	5.0	40-150	120 VAC	54469-03	54934-01	54677-60

Models – 5/2 Solenoid/Solenoid

Part Number	Actuation	Function	Override	Port size NPT	Flow Cv	Operating press. PSI	Voltage	Coil	Connector	Repair kit
										
MN01CGA25AJJA	5/2	Solenoid / Solenoid	Non-locking	1/2	5.0	30 - 150	120 VAC	54469-03	54934-01	54677-60
MN01CHA25AJJA	5/2	Solenoid / Solenoid	Non-locking	3/4	5.0	30 - 150	120 VAC	54469-03	54934-01	54677-60

Models – 5/3 Solenoid/Solenoid

Part Number	Actuation	Function	Override	Port size NPT	Flow Cv	Operating press. PSI	Voltage	Coil	Connector	Repair kit
										
MN03CGA25FJJA ³	5/3 APB	Solenoid / Solenoid	Non-locking	1/2	5.0	20 - 150	120 VAC	54469-03	54934-01	54677-61
MN03CHA25FJJA ³	5/3 APB	Solenoid / Solenoid	Non-locking	3/4	5.0	20 - 150	120 VAC	54469-03	54934-01	54677-61

³ All ports blocked

PROSPECTOR POPPET VALVES

1/2" BASIC WITH 1/2" OR 3/4" THREADED PORTS

- » Durable, robust construction
- » 1/4" to 1-1/2" PTF threads
- » Available in 2/2, 3/2 and 4/2 configurations

→ Online at
norgren.com

Technical Data

Medium:

Filtered and lubricated or non-lubricated compressed air or vacuum.

Operation:

Poppet valve solenoid or air pilot actuated.

Mounting:

Through-holes in valve body and subbase.

Operating temperature:

-20°F to 120°F* (-29°C to 49°C)

* Consult Technical Service for use below 34°F (+2°C).

Operating pressure:

Air Pilot

Maximum 300 psig (20.6 bar)

Solenoid Pilot

Maximum 150 psig (10.3 bar)

Materials:

Body: Aluminum alloy body

Operators: Zinc or aluminum solenoid

pilot operators, stainless steel or

steel, reinforced polyester, brass or



polyurethane, acetal, copper wire.

Elastomers: Nitrile rubber seals



Internals: Aluminum





2/2 Single air pilot operated spring return inline valves

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Part number
							
A1012H-A1 ¹	1/2	1/4	2.1	0 - 300	30 - 300	-A1	53474-03
A1013H-A1 ¹	1/2	3/8	3.4	0 - 300	30 - 300	-A1	53474-03
A1014H-A1 ¹	1/2	1/2	5.3	0 - 300	30 - 300	-A1	53474-03
A1015H-A1 ¹	1/2	3/4	6.5	0 - 300	30 - 300	-A1	53474-03
A1026H-A1 ¹	1	1	10.7	0 - 300	30 - 300	-A1	53475-01

3/2 Air/spring normally closed inline valves

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Part number
							
D1023H-A1 ¹	1/2	3/8	1.7 to 1.8	0 - 300	30 - 300	-A1	53474-03
D1024H-A1 ¹	1/2	1/2	4.6 to 5.8	0 - 300	30 - 300	-A1	53474-03
D1025H-A1 ¹	1/2	3/4	5.4 to 6.2	0 - 300	30 - 300	-A1	53474-03
D1036H-A1 ¹	1	1	13.2 to 14.6	0 - 300	30 - 300	-A1	53475-01

3/2 Air/spring multi-directional inline valves

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Part number
							
C1014H-A1 ¹	1/2	1/2	5.7 to 3.4	0 - 300	30 - 300	-A1	53474-03
C1025H-A1 ¹	1/2	3/4	6.1 to 4.0	0 - 300	30 - 300	-A1	53474-03
C1036H-A1 ¹	1	1	17.7 to 13.2	0 - 300	30 - 300	-A1	53475-01



1 Normally closed

2 Pilot pressure must be equal to or greater than the operating pressure



PROSPECTOR POPPET VALVES

1/2" Basic with 1/2" or 3/4" threaded ports



4/2 Air/spring

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Repair kit
							
F1024H-A1	1/2	1/2	4.0 to 5.5	0 - 300	30 - 300	-A1	53474-06
F1025H-A1	1/2	3/4	4.8 to 5.8	0 - 300	30 - 300	-A1	53474-06
F1036H-A1	1	1	11.3 14.3	0 - 300	30 - 300	-A1	53475-06



2/2 Solenoid/spring (110/120 VAC)

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Repair kit
							
A1014C-CY ¹	1/2	1/2	5.3	30 - 150	30 - 150	-CY	53474-03
A1015C-CY ¹	1/2	3/4	6.5	30 - 150	30 - 150	-CY	53474-03
A1026C-CC ¹	1	1	10.7	30 - 150	30 - 150	-CC	53475-01

3/2 Solenoid/spring (110/120 VAC)

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Repair kit
							
D1023C-CY ¹	1/2	3/8	1.7 to 1.8	30 - 150	30 - 150	-CY	53474-03
D1024C-CY ¹	1/2	1/2	4.6 to 5.8	30 - 150	30 - 150	-CY	53474-03
D1025C-CC ¹	1/2	3/4	5.4 to 6.2	30 - 150	30 - 150	-CC	53474-03
D1036C-CC ¹	1	1	13.2 to 14.6	30 - 150	30 - 150	-CC	53475-01

4/2 Solenoid/spring (110/120 VAC)

Model	Basic size inch	Port size PTF	Flow Cv	Operating pressure (psi)	Pilot pressure ² (psi)	Operator	Repair kit
							
F1024C-CC	1/2	1/2	4.0 to 5.5	30 - 150	30 - 150	-CC	53474-06
F1025C-CC	1/2	3/4	4.8 to 5.8	30 - 150	30 - 150	-CC	53474-06
F1036C-CC	1	1	11.3 14.3	30 - 150	30 - 150	-CC	53475-06

¹ Normally closed

² Pilot pressure must be equal to or greater than the operating pressure

Operators



-A1
Air



-CC
30 mm coil,
DIN 43650



-CY
22 mm
Industrial Standard

PROSPECTOR POPPET VALVES

1/2" Basic with 1/2" or 3/4" Threaded Ports

Solenoid Coils (22 mm coil)

Part number	Description
54452-07	240V/60Hz-220V/50Hz, 7.5W
54452-01	120V/60Hz-110V/50Hz, 7.5W
54452-02	12 VDC, 7.5W
54452-03	24 VDC, 6W

Replacement Parts

Part number	Description
A1014C	2-way, normally closed valve
D1024C	3-way, inline, normally closed valve
F1024C	4-way, inline valve
-CY	non-locking solenoid pilot
-CC	solenoid pilot assembly
-A1	air operator
54452-01	Replacement coil for -CY operator
54934-01	Replacement Connector for -CY operator
40110-A04	Replacement coil for -CC
54933-05	Replacement Connector for -CC operator

Connectors

Part number	Code
3-Pin Industrial Standard 22mm	
-	A = no connector
54934-01	B = Cable grip 0-240 VAC/ VDC
54934-21	C = 6 ft molded cable, 0-240 VAC/ VDC
54934-08	H = Cable grip w/indicator light 24 VDC
54934-02	J = Cable grip w/indicator light 120 VAC
54934-05	Z = 1/2" Conduit 0-240 VAC/ VDC
54934-30	5 = 6 ft molded cable w/indicator light, surge suppression, 24 VAC/ VDC
54934-35	6 = 6 ft molded cable w/indicator light, 120 VAC

Repair kit seals

Part number	Description	Valve function
53474-03	1/2" basic body	2/2 & 3/2
53475-01	1" basic body	2/2 & 3/2
53822-01	2" basic body	2/2 & 3/2
53474-06	1/2" basic bod	4/2
53475-06	2" basic body	4/2

In-line Valves Super X

Manual and Mechanical actuated spool valve – 3/2, 5/2 and 5/3, 1/8", 1/4"

- » Wide range of operators
- » Suitable for multi-directional flow and dual supply applications
- » High flow capacity
- » Lightweight corrosion resistant materials

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operation:

Spool Valve, directly and indirectly actuated

Mounting:

Through-holes in valve body

Port size:

1/8" and 1/4" NPT

Operating pressure:

Maximum 26.5" Hg to 145 psig (-0.9 to 10 bar)

Flow characteristics:

Size	Function	Cv	l/min
1/8" NPT	3/2, 5/2, 5/3	0.34	335
1/4" NPT	3/2, 5/2, 5/3	0.98	965

Operating temperature:

32°F* to 158°F (0°C* to 70°C)
* Consult our Technical Service for use below 35°F (2°C).

Materials:

























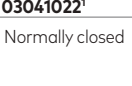



Diecast aluminum alloy body, aluminum or glass filled nylon end covers, nitrile rubber seals



→ Online at norgren.com

Models – 3/2 Mechanical Valves

Accessories

Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
 03029322 ¹	Roller lever (heavy duty)/Spq	1/8	0.34	1/8	1/4			
 03040222 ¹	Roller/Spring	1/8	0.34	1/8	1/4			
 03040022 ¹	Plunger Spring	1/8	0.34	1/8	1/4			
 03041122 ¹	Roller lever/Spring	1/8	0.34	1/8	1/4			
 03061122 ¹	Roller lever/Spring	1/4	0.98	1/4	3/8			
 03043222 ¹	Antenna/Spring	1/8	0.34	1/8	1/4			
 03041022 ¹	One-way trip	1/8	0.34	1/8	1/4			

















1 Normally closed

IN-LINE VALVES SUPER X

Manual and Mechanical actuated pool valve – 3/2, 5/2 and 5/3, 1/8", 1/4"













Models – 5/2 Mechanical Valves

Accessories

Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
X3039322	Roller lever (heavy duty)/Spg	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
X3045122	Roller lever/Spring	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
X3065122	Roller lever/Spring	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
X3064222	Roller/Spring	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
X3047222	Antenna/Spring	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A

Models – 3/2 Manual Valves

Accessories

















Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
03029622	Lever/lever	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
03040322	Toggle/toggle	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
03041922	Rotary knob/rotary knob	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A

IN-LINE VALVES SUPER X

Manual and Mechanical actuated spool valve – 3/2, 5/2 and 5/3, 1/8", 1/4"

Models – 3/2 Manual Valves









Accessories

Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
03040422¹	Black – Button/spring	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
03060422¹	Black – Button/Spring	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
03041422¹	Black – Button (shrouded) spring	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
03042522	Knob/knob	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
03062522	Knob/knob	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
03042422	Knob/knob or pilot	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A

¹ Normally closed

Models – 5/2 Manual Valves

Accessories

























Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
X3044422	Black palm button	1/8	0.34	1/8	1/8	C24250418	C24470418	MS001A
								
X3064422	Black palm button	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A

IN-LINE VALVES SUPER X

Manual and mechanical actuated spool valve – 3/2, 5/2 and 5/3, 1/8", 1/4"





Models – 5/2 Manual Valves

Accessories

Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
X3044322	Toggle/toggle	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
X3047722	Lever/lever	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
X3067722	Lever/lever	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
X3029622	Heavy Duty Lever / Lever	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
X3045922	Rotary knob/rotary knob	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
								
X3046522	Knob, push/knob, pull	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A
X3066522	Knob, push/knob, pull	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A
								
X3045822801	Button (palm) Key	1/8	0.34	1/8	1/4	C24250418	C24470418	MS001A

Models – 5/3 Manual Valves

Accessories

Model no.	Actuation	Port size NPT	Flow Cv	Thread NPT	Tube Size	Straight Fitting	90° swivel elbow	Muffler
								
X3363822³	Lever/spring/lever	1/4	0.98	1/4	3/8	C24250628	C24470628	MS002A

3 All ports blocked

NUGGET 200 SPOOL VALVES

Manual and Mechanical Actuated Valves

- » Long lasting spool design
- » High flow compact valves
- » Wide range of Manual and Mechanical Operators available
- » Three functional types available in 3/2, 5/2, and 5/3 configurations

Technical Data

Medium:
Filtered and lubricated or non-lubricated compressed air or vacuum.

Operation:
Spool valve manual or mechanical actuation.

Mounting:
Inline – through holes in valve body.

Port size:
1/4", 3/8" & 1/2" NPT
1/4" & 3/8" ISO G

Operating pressure:
Maximum 150 psig (10.3 bar).

Operating temperature:
-20°F to 160°F (-29°C to 71°C)
Consult Technical Service for use below 35°F (2°C).

Materials:
Body: Aluminum
Spool: Anodized aluminum
Elastomers: Nitrile and special nitrile-based low-friction elastomers.



→ Online at norgren.com

Average Flow Factors in Cv* (l/min)

Valve	Flow Path		
	Port Size	Port 1 to 2 1 to 4	Port 2 to 3 4 to 5
3-Port, Inline	1/4"	1.6 (1600)	1.7 (1700)
	3/8"	1.6 (1600)	1.7 (1700)
5-Port, Inline	1/4"	1.6 (1600)	1.7 (1700)
	3/8"	1.6 (1600)	1.7 (1700)
	1/2"	1.6 (1600)	1.7 (1700)

* Flow Rating determined in accordance with NFPA/T3.21.3, Pneumatic fluid power – Flow test procedure and reporting method – For fixed orifice components.

NUGGET 200 SPOOL VALVES











Manual and Mechanical Actuated Valves

Models – 3/2 Manual Valves

Model No.	Actuation	Port size NPT	Flow Cv	Operating press psig	Body and spool	Operators	Repair kit
							
K41DA00KS6KF0¹	Foot pedal/heavy duty spring	1/4	1.67	-10" Hg to 150	K41DA00	KF0	54237-59
K41EA00KS6KF0¹	Foot pedal/spring	3/8	1.67	-10" Hg to 150	K41DA00	KF0	54237-59
							
K41DA00KCOKL1	Lever/lever/Detent	1/4	1.67	-10" Hg to 150	K41DA00	KL1	54237-59
							
K41DA00KS1KLO¹	Lever/spring	1/4	1.67	-10" Hg to 150	K41DA00	KLO	54237-59
							
K41DA00KCOKB3¹	Palm button/Detent	1/4	1.67	-10" Hg to 150	K41DA00	KB3	54237-59
							
K41DA00KCOKB0	Palm Button/spring	1/4	1.67	-10" Hg to 150	K41DA00	KB0	54237-59

1 Normally closed

Models – 3/2 Mechanical Valves

Model No.	Actuation	Port size NPT	Flow Cv	Operating pressure (psig)	Body and spool	Operator	Repair kit
							
K41DA00KS1KPO¹	tappet/spring	1/4	1.67	-10" Hg to 150	K41DA00	KPO	54237-59
							
K41DA00KS1KR2¹	Lever roller/spring, Horizontal	1/4	1.67	-10" Hg to 150	K41DA00	KR2	54237-59
Image not available							
K41EA00KS1KR4¹	Lever roller/spring, Vertical	3/8	1.67	-10" Hg to 150	K41EA00	KR4	54237-59

1 Normally closed





NUGGET 200 SPOOL VALVES

Manual and Mechanical Actuated Valves

Models – 5/2 Manual Valves

Model no.	Actuation	Port size NPT	Flow Cv	Operating press psig	Body and spool	Operator	Repair kit
 K71DA00KS6KF0	Foot pedal/spring	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KCOKT1	Treadle pedal	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KCOKL1	Lever/lever	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KCOKL0	Detent lever/detent lever	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KS6KL0	Lever/spring	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KCOKB0	Palm button, black	1/4	1.67	-10" Hg to 150			 54237-56
 K71DA00KCOKB31P2	Detent palm button	1/4	1.67	-10" Hg to 150			 54237-56
 K71EA00KS6KF0	Foot pedal/spring	3/8	1.67	-10" Hg to 150			 54237-56
 K71EA00KCOKL1	Detent lever/detent lever	3/8	1.67	-10" Hg to 150			 54237-56

Models – 5/2 Mechanical Valves

Model no.	Actuation	Port size NPT	Flow Cv	Operating press psig	Body	Operator	Repair kit
 K71DA00KS6KR2	Lever roller/spring,	1/4	1.67	-10" Hg to 150			 54237-56

NUGGET 200 SPOOL VALVES

Manual and Mechanical Actuated Valves

Models – 5/3 Manual Valves

Model No.	Actuation	Port size NPT	Flow Cv	Pilot pressure (psig)	Body and spool	Operators	Repair kit
							
K81DA00KCOKL3 ³	lever/lever/lever, Detent	1/4	1.67	-10" Hg to 150	K81DA00	KL3	54237-56
K81EA00KCOKL3 ³	lever/lever/lever, Detent	3/8	1.67	-10" Hg to 150	K81DA00	KL3	54237-56
							
K81DA06KCOKL2 ⁴	lever/lever/lever	1/4	1.67	-10" Hg to 150	K81DA06	KL2	54237-56
							
K81DA00KCOKL2 ³	lever/lever/lever	1/4	1.67	-10" Hg to 150	K81DA00	KL2	54237-56
K81DA00KL2KC0 ³	lever	1/4	1.67	-10" Hg to 150	K81DA00	KL2	54237-56
K81EA00KCOKL2 ³	lever/lever/lever	3/8	1.67	-10" Hg to 150	K81EA00	KL2	54237-56
K81FA00KCOKL2 ³	lever/lever/lever	1/2	1.67	-10" Hg to 150	K81FA00	KL2	54237-56
							
K81DA00KCOKT2 ³	Treadle, spring centered	1/4	1.67	-10" HG to 150	K81DA00	KT2	54237-56
							
54842-66	Foot guard for use with KFO operators						

3 All ports blocked

4 Cylinders open to exhaust

VHLA SERIES

½ and ⅔ Rotary lever valve

- » 1/8 to 3/4 NPT and ISO G
- » High flow rates
- » Easy to grasp and rotate lever
- » Panel mounting nut available
- » All positions detented

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated

Port size:

1/8, 1/4, 3/8 1/2 and 3/4 NPT
1/8, 1/4, 3/8 1/2 and 3/4 ISO G

Operating pressure:

0 to 140 psi (0 to 9.7 bar)

Flow:

Cv = 0.4 to 3.1
(400 to 3100 l/min)

Ambient/Media temperature:

23°F to 140°F (-5°C to 60°C)
Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Materials:

Body and cover: Aluminum alloy
Lever rod seat: Zinc alloy
Lever rod: Carbon steel
Lever: POM
Panel mounting nut:
Rolled steel
Seals: NBR



→ Online at norgren.com

Technical Data

Symbol	Function	Flow Cv (l/min)	Port size NPT	Weight lb. (kg)	Model
	4/2	0.4 (400)	1/4	0.6 (0.28)	VHLA202-02A
	4/2	1.1 (1100)	3/8	0.9 (0.42)	VHLA302-03A
	4/2	3.1 (3100)	1/2	2.42 (1.1)	VHLA402-04A
	4/3 APB	0.4 (400)	1/8	0.6 (0.28)	VHLA200-01A
	4/3 APB	0.4 (400)	1/4	0.6 (0.28)	VHLA200-02A
	4/3 APB	1.1 (1100)	3/8	0.9 (0.42)	VHLA300-03A
	4/3 APB	3.1 (3100)	1/2	2.42 (1.1)	VHLA400-04A
	4/3 APB	3.1 (3100)	3/4	2.42 (1.1)	VHLA400-05A
	4/3 COE	0.4 (400)	1/4	0.6 (0.28)	VHLA201-02A
	4/3 COE	1.1 (1100)	3/8	0.9 (0.42)	VHLA301-03A
	4/3 COE	3.1 (3100)	1/2	2.42 (1.1)	VHLA401-04A

APB = All Ports Blocked

COE = Center Open to Exhaust

Caution:

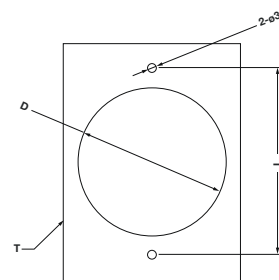
These valves are not leak free, care should be taken with safety critical applications and where an APB valve is used to hold an actuator in a mid position.

Installation:

It is recommended that air pressure is applied only at port 1, otherwise leakage may occur - (ie. reverse porting is not recommended). It is recommended that a silencer is fitted in the exhaust port, particularly in applications where dust is present.

Accessories

Valve series	Panel mount nut	Replacement lever
VHLA20..	VHLA-200N	VHLA-200L
VHLA30..	VHLA-300N	VHLA-300L
VHLA40..	VHLA-400N	VHLA-300L



	VHLA 200 Inch (mm)	VHLA 300 Inch (mm)	VHLA 400 Inch (mm)
D = Panel cut out diameter	1.38 (35)	1.61 (41)	2.00 (51)
L = Panel pin cut out	40 (1.57)	2.01 (51)	2.52 (64)
T = Panel Thickness	0.06-0.12 (1.5-3)	0.08 - 0.23 (2-6)	0.08 - 0.31 (2-8)

Inline Lockout Valves

1/2" and 1" basic

- » 3-way, manually operated, full flow lockout valves can be locked in the closed position with a customer supplied padlock.
- » Helps you comply to OSHA regulations, as they relate to OSHA regulation 29 CFR Part 1910, standard for lockout/tagout procedures.

Technical Data

Fluid:

Compressed air

Maximum pressure:

300 psig (20.4 bar)

Temperature range*:

-20° to 175°F (-29° to 79°C)

*With a dew point of supply air less than air temperature below 35°F (2°C).

Maximum diameter of lock shackle:

5/16" (8mm)

Materials

Valve Body: Aluminum
Muffler Base: Zinc
Spool, T-Handle
Spring Detent:
Stainless Steel Elastomers
Nitrile and Polyurethane




→ Online at
norgren.com

Inline Lockout

Valve Type	A	B		C		D		E	F
		Without Muffler	With Muffler	Without Muffler	With Muffler	Without Muffler	With Muffler		
1/2" basic	1.87	9.33	11.78	2.90	5.35	6.97	7.97	4.00	2.00
	(48)	(237)	(299)	(74)	(136)	(177)	(202)	(102)	(51)
1" basic	2.26	12.07	15.72	4.13	7.78	8.65	10.46	5.00	2.50
	(57)	(307)	(399)	(105)	(198)	(220)	(266)	(127)	(64)

Inline Lockout

Model No. with muffler	Basic size inch	Handle color	Port size NPT	Cv Factor In-Out	Cv Factor Out-Exhaust Ports	Replacement Muffler
 C0023B	1/2	Black	3/8	6.6	6.6	ML004F
C0023C	1/2	Black	1/2	9.3	7.9	ML004F
C0023D	1/2	Black	3/4	12.6	8.6	ML004F
C0024B	1	Black	1	16.2	9.2	ML008F
C0024C	1	Black	1-1/4	25.3	8.9	ML008F
C0024D	1	Black	1-1/2"	22.4	10.0	ML008F



VP10 Electronic Pressure Regulator

1/4" NPT

- » Reliable, rugged proportional I/P and E/P converters
- » Suitable for a wide range of applications
- » Excellent accuracy
- » High flow versions
- » NEMA4 environmental protection in normal operation

Technical Data

Medium:

Oil free, dry air, filtered to 5 micron

Flow capacity:

Up to 10 scfm (300 l/min)

Operating pressure:

At least 10 psig (0.7 bar) above maximum required output pressure, 145 psig (10 bar) maximum

Connections:

NPT 1/4"

Operating temperature:

-4° to 160°F (-20°C to 70°C)

Response time:

<30 psig: less than 0.5 seconds for 10-90% step change

>30 psig: 2 seconds for 10-90% step change

Total error:

±0.5% of span (typical, independent error includes the combined effect of non-linearity, hysteresis, deadzone and repeatability)

Supply sensitivity:

>0.025% span output change per % supply pressure change

Failure mode:

Signal falls to bleed pressure when electrical supply fails


Material of construction:

Zinc die-casting passivated and epoxy paint, nitrile diaphragms, stainless steel/nylon flapper nozzle and supply valve
Mass: 3.3 lbs (1500g) approx.



→ Online at norgren.com

Standard Models

Model No.	Port Size	Outlet Pressure	Control Signal	Unit measure	Electrical Connection	Cable Grip Connector	6 ft molded cable
 VP1006PK401A00	1/4" NPT	3-90 psi	4-20mA	PSI	30mm DIN 43650, form A	54933-05	54933-06
VP1008PK401A00	1/4" NPT	3-120 psi	4-20mA	PSI	30mm DIN 43650, form A	54933-05	54933-06

VP50 PROPORTIONAL PRESSURE CONTROL VALVE

1/4" NPT

- » Closed loop air pilot operated proportional pressure control valve
- » Adjustable for a wide range of applications
- » Fast response
- » Low power consumption
- » High flow

Technical Data

Medium:

Compressed air, filtered to 5 micron, non-lubricated

Operation:

Proportional, direct acting air piloted spool

Supply pressure:

Minimum of 29 psig (2 bar) above maximum output required, 200 psig (14 bar) maximum

Supply sensitivity:

Better than 0.75% span output change per bar supply pressure change

Flow capacity:

Up to 50 scfm (1400 NI/min)

Response time:

< 80 mS (from 10-90% of output pressure into a 0.1 litre load)

Air consumption:

< .177 scfm (5 l/min)

Port size:

1/4 PTF (G1/4)

Total error:

Max. error < ±1% of span (independent error includes the combined effect of non-linearity, hysteresis, deadzone and repeatability)

Operating temperature:

23° to 120°F (-5° to 50°C)

Degree of protection:

NEMA 4 (IP65) in normal operation

Material of construction:


Aluminum body, zinc diecast lid and end cover



→ Online at norgren.com

Models

Accessories

Model No.	Port size	Outlet pressure	Control signal	Units	Electrical connection	M12 straight connector 16ft	M12 straight connector 30ft
	1/4" NPT	0 - 145 psi	0-10V	PSI	M12x1, 5-pin	0250081000000000	0250472000000000
VP5010BJ111H00	1/4" ISOG	0 - 6 bar	0-10V	Bar	M12x1, 5-pin	0250081000000000	0250472000000000
VP5010PK411H00	1/4" NPT	0 - 145 psi	4-20mA	PSI	M12x1, 5-pin	0250081000000000	0250472000000000
VP5010BJ411H00	1/4" ISOG	0 - 10 bar	4-20mA	Bar	M12x1, 5-pin	0250081000000000	0250472000000000
VP5006PK111H00	1/4" NPT	0 - 90 psi	0-10V	PSI	M12x1, 5-pin	0250081000000000	0250472000000000
VP5006BJ111H00	1/4" ISOG	0 - 10 bar	0-10V	Bar	M12x1, 5-pin	0250081000000000	0250472000000000
VP5006PK411H00	1/4" NPT	0 - 90 psi	4-20mA	PSI	M12x1, 5-pin	0250081000000000	0250472000000000
VP5006BJ411H00	1/4" ISOG	0 - 6 bar	4-20mA	Bar	M12x1, 5-pin	0250081000000000	0250472000000000



- In stock
- ◆ Ships within one week

VP51 PROPORTIONAL PRESSURE CONTROL VALVE

PROGRAMMABLE 1/4" NPT

- » Fully programmable with on-board diagnostics
- » Multi-option language display
- » Password protection option at first level functionality
- » Instant LED warning functions
- » Application specific set-up
- » Pressure output display; no gauge necessary
- » High speed response
- » Optional manifold mount utilizes the ISO Size 2 subbase

Technical Data

Medium:

Compressed air filtered to 40 µm, non-lubricated

Supply pressure:

200 psig (14 bar) maximum

Supply sensitivity:

< 50 mbar between 160 and 90 psig (11 and 6 bar) supply

Response time:

< 100 ms (from 10 to 90% of output pressure into a 0.1 litre load)

Total error:

Maximum error ± 1.45 psig (100 mbar) of total span (independent error includes the combined effect of non-linearity, hysteresis, deadzone and repeatability)

Ambient temperature:

-4°F to 122°F (-20°C to 50°C)

Degree of protection:

NEMA 4 in normal operation

Weight:

1.76 lbs (0.8 kg)

Materials:

Body: aluminum

Lid and end cover: zinc diecast




Flow:

Up to 50 scfm (1400 NI/min)



→ Online at norgren.com

Models

Model number	Port size	Outlet pressure	Control signal	Units	Electrical connection	M12 straight connector 16ft	M12 straight connector 30ft
							
VP5110PK111H00	1/4" NPT	0 - 145 psi	0-10V	PSI	M12x1, 5-pin	0250081000000000	0250472000000000
VP5110BJ111H00	1/4" ISOG	0 - 10 bar	0-10V	Bar	M12x1, 5-pin	0250081000000000	0250472000000000
VP5110PK411H00	1/4" NPT	0 - 145 psi	4-20mA	PSI	M12x1, 5-pin	0250081000000000	0250472000000000

ELECTRONIC DRAIN VALVE

- » NEMA 4 electrical rating
- » CE marked
- » Dual timers allow full adjustment of both the drain interval (0.5 to 45 minutes) and the valve actuation duration (0.5 to 10 seconds)
- » Two indicator lights for visual inspection of power on and valve actuation
- » Solid state electronics
- » Non-position sensitive installation

Technical Data


Timer
Interval time T2(1):
 0.5 - 45 minutes
Discharge time T1(1):
 0.5 - 10 seconds
Manual test switch
supply voltage (2):
 24V - 240V± 10% 50/60Hz
Current consumption:
 Max. 4mA
Operating temperature:
 32° to 130°F
Environmental protection:
 IP 65 NEMA 4
Case material:
 ABS Plastic FR Grade
Connection:
 DIN 43650A ISO 4400/6952
Timer Cycle Indication:
 Bright LED illumination
Valve Type:
 2/2-Way direct acting valve

In/Out ports:
 1/4", 3/8", 1/2" NPT-Female
Max. working pressure:
 300 Psi
Operating Temperature:
 32°F/130°F ambient
Media Temperature:
 Max. 194°F
Valve Body:
 Stainless steel, orifice 3/16"
Insulation:
 Thermal group H
Environmental protection:
 IP 65 NEMA 4
Supply voltage*:
 24V - 240V
Voltage tolerance:
 ± 10%
Mounting:
 Any position



→ Online at norgren.com

Models

Model number	Port size NPT	Voltage
 17-020-300	1/4"	115 VAC
17-020-306	1/2"	115 VAC
17-020-307	1/2"	230 VAC

Function: The function of the electronic drain valve is to drain condensate from air compressors, air dryers, condensate separators and air filters. The condensate can be drained in any interval between the adjustable time cycles of 0.5 to 45 minutes. The draining time can be set between 0.5 to 10 seconds.

KIP SERIES 1 VALVES

- » 2/2 and 3/2 direct acting
- » Designed for long life and reliability
- » Ideally suited for air, liquid, and vacuum control in a broad range of sectors
- » Different materials available for compatibility with neutral gases and liquids
- » Custom fitting or electrical hardware installation available upon request

➔ Online at norgren.com

*For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingtontechnical@imi-precision.com

Technical Data

Operating Pressure:

2/2: 0 to 800 psig, vacuum capable*
3/2: 0 to 230 psig, vacuum capable*

Orifice

Ø1/32" to Ø5/32"

MOPD:

2/2: 50 to 800 psig
3/2: 10 to 200 psig

Cv Range:

2/2: 0.035 to 0.290
3/2: 0.035 to 0.285

Actuation:

Solenoid

Coil:

AC, DC, rectified coil*

Coil Class Options:

B: 266°F (130°C) standard
H: 356°F (180°C)

Connection:

1/8" NPTF or manifold mount

Electrical Connection:

24" flying leads

Switching Function:

2/2: NO, NC
3/2: NO, NC, Multi-purpose, Directional Control

Voltage Options:

12VDC, 24VDC, 24/60VAC, 120/60VAC, 240/60VAC

Wattage:

6 Watts, nominal
Duty Cycle: Continuous



Weight:

6oz, typical

Response Time:

9ms, typical

Material:

Body: brass or stainless steel
Internal wetted parts: 430FR & 300 series CRES

Series 1 valves, 1/8" NPT port, 2-way normally closed

Part number	Port NPT	Orifice body	Cv body	Orifice stop	Cv stop	MOPD*	Body material	Voltage
U141110-120-60	1/8"	1/32"	0.035	N/A	N/A	800	Brass	120/60 VAC
U141110-12VDC	1/8"	1/32"	0.035	N/A	N/A	800	Brass	12 VDC
U141110-24VDC	1/8"	1/32"	0.035	N/A	N/A	800	Brass	24 VDC
U141111-120-60	1/8"	3/64"	0.050	N/A	N/A	500	Brass	120/60 VAC
U141111-12VDC	1/8"	3/64"	0.050	N/A	N/A	500	Brass	12 VDC
U141111-24VDC	1/8"	3/64"	0.050	N/A	N/A	500	Brass	24 VDC
U141112-120-60	1/8"	1/16"	0.095	N/A	N/A	300	Brass	120/60 VAC
U141112-12VDC	1/8"	1/16"	0.095	N/A	N/A	300	Brass	12 VDC
U141112-24VDC	1/8"	1/16"	0.095	N/A	N/A	300	Brass	24 VDC
U141115-120-60	1/8"	1/8"	0.245	N/A	N/A	100	Brass	120/60 VAC
U141115-12VDC	1/8"	1/8"	0.245	N/A	N/A	100	Brass	12 VDC
U141115-24VDC	1/8"	1/8"	0.245	N/A	N/A	100	Brass	24 VDC

Series 1 valves, 1/8" NPT port, 3-way normally closed**

Part number	Port NPT	Orifice body	Cv body	Orifice stop	Cv stop	MOPD*	Body material	Voltage
U141131-120-60	1/8"	3/64"	0.050	3/64	0.065	150	Brass	120/60 VAC
U141131-12VDC	1/8"	3/64"	0.050	3/64	0.065	150	Brass	12 VDC
U141131-24VDC	1/8"	3/64"	0.050	3/64	0.065	150	Brass	24 VDC
U141132-120-60	1/8"	1/16"	0.085	1/16	0.115	100	Brass	120/60 VAC
U141132-12VDC	1/8"	1/16"	0.085	1/16	0.115	100	Brass	12 VDC
U141132-24VDC	1/8"	1/16"	0.085	1/16	0.115	100	Brass	24 VDC

KIP SERIES 2 VALVES

- » 2/2 and 3/2 direct acting
- » Designed for long life and reliability
- » Ideally suited for air, liquid, and vacuum control in a broad range of sectors
- » Different materials available for compatibility with neutral gases and liquids
- » Custom fitting or electrical hardware installation available upon request

➔ Online at norgren.com

*For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingtontechnical@imi-precision.com

Technical Data

Operating Pressure:

2/2: 0 to 1000 psig, vacuum capable*
3/2: 0 to 250 psig, vacuum capable*

Orifice

Ø1/32" to Ø5/32"

MOPD:

2/2: 100 to 1000 psig
3/2: 15 to 250 psig

Cv Range:

2/2: 0.035 to 0.290
3/2: 0.035 to 0.285

Actuation:

Solenoid

Coil:

AC, DC, rectified coil*

Coil Class Options:

B: 266°F (130°C) standard
H: 356°F (180°C)

Connection:

1/8" NPTF or manifold mount

Electrical Connection:

24" flying leads and 3/16" or 1/4" spade terminal

Switching Function:

2/2: NO, NC
3/2: NO, NC, Multi-purpose, Directional Control

Voltage Options:

12VDC, 24VDC, 24/60VAC, 120/60VAC, 240/60VAC

Wattage:

7 Watts, nominal



Duty Cycle:

Continuous

Weight:

7oz, typical

Response Time:

9ms, typical

Material:

Body: brass or stainless steel
Internal wetted parts: 430FR & 300 series CRES

Series 2 valves, 1/8" NPT port, 2-way normally closed

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U249010-0261-120-60	1/8"	1/32"	0.035	NA	NA	1000	Stainless steel	120/60 VAC
U249010-0261-12VDC	1/8"	1/32"	0.035	NA	NA	1000	Stainless steel	12 VDC
U249010-0261-24VDC	1/8"	1/32"	0.035	NA	NA	1000	Stainless steel	24 VDC
U249012-0261-120-60	1/8"	1/16"	0.095	NA	NA	400	Stainless steel	120/60 VAC
U249012-0261-12VDC	1/8"	1/16"	0.095	NA	NA	400	Stainless steel	12 VDC
U249012-0261-24VDC	1/8"	1/16"	0.095	NA	NA	400	Stainless steel	24 VDC
U249014-0261-120-60	1/8"	3/32"	0.175	NA	NA	250	Stainless steel	120/60 VAC
U249014-0261-12VDC	1/8"	3/32"	0.175	NA	NA	250	Stainless steel	12 VDC
U249014-0261-24VDC	1/8"	3/32"	0.175	NA	NA	250	Stainless steel	24 VDC
U249015-0261-120-60	1/8"	1/8"	0.245	NA	NA	150	Stainless steel	120/60 VAC
U249015-0261-12VDC	1/8"	1/8"	0.245	NA	NA	150	Stainless steel	12 VDC
U249015-0261-24VDC	1/8"	1/8"	0.245	NA	NA	150	Stainless steel	24 VDC
U249016-0261-120-60	1/8"	5/32"	0.29	NA	NA	100	Stainless steel	120/60 VAC
U249016-0261-12VDC	1/8"	5/32"	0.29	NA	NA	100	Stainless steel	12 VDC
U249016-0261-24VDC	1/8"	5/32"	0.29	NA	NA	100	Stainless steel	24 VDC

*MOPD - Maximum operating pressure differential between in and out ports, units are psi.

KIP SERIES 2 VALVES

Series 2 valves, 1/8" NPT port, 2-way normally closed

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U249110-0261-120-60	1/8"	1/32"	0.035	NA	NA	1000	Brass	120/60 VAC
U249110-0261-12VDC	1/8"	1/32"	0.035	NA	NA	1000	Brass	12 VDC
U249110-0261-24VDC	1/8"	1/32"	0.035	NA	NA	1000	Brass	24 VDC
U249112-0261-120-60	1/8"	1/16"	0.095	NA	NA	400	Brass	120/60 VAC
U249112-0261-12VDC	1/8"	1/16"	0.095	NA	NA	400	Brass	12 VDC
U249112-0261-24VDC	1/8"	1/16"	0.095	NA	NA	400	Brass	24 VDC
U249114-0261-120-60	1/8"	3/32"	0.175	NA	NA	250	Brass	120/60 VAC
U249114-0261-12VDC	1/8"	3/32"	0.175	NA	NA	250	Brass	12 VDC
U249114-0261-24VDC	1/8"	3/32"	0.175	NA	NA	250	Brass	24 VDC
U249115-0261-120-60	1/8"	1/8"	0.245	NA	NA	150	Brass	120/60 VAC
U249115-0261-12VDC	1/8"	1/8"	0.245	NA	NA	150	Brass	12 VDC
U249115-0261-24VDC	1/8"	1/8"	0.245	NA	NA	150	Brass	24 VDC
U249116-0261-120-60	1/8"	5/32"	0.290	NA	NA	100	Brass	120/60 VAC
U249116-0261-12VDC	1/8"	5/32"	0.290	NA	NA	100	Brass	12 VDC
U249116-0261-24VDC	1/8"	5/32"	0.290	NA	NA	100	Brass	24 VDC

*MOPD - Maximum operating pressure differential between in and out ports

Series 2 valves 1/8" NPT port, 3-way normally closed**

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U249040-0261-120-60	1/8"	1/32"	0.035	1/32"	0.025	250	Stainless steel	120/60 VAC
U249040-0261-12VDC	1/8"	1/32"	0.035	1/32"	0.025	250	Stainless steel	12 VDC
U249040-0261-24VDC	1/8"	1/32"	0.035	1/32"	0.025	250	Stainless steel	24 VDC
U249041-0261-120-60	1/8"	3/64"	0.050	3/64"	0.065	175	Stainless steel	120/60 VAC
U249041-0261-12VDC	1/8"	3/64"	0.050	3/64"	0.065	175	Stainless steel	12 VDC
U249041-0261-24VDC	1/8"	3/64"	0.050	3/64"	0.065	175	Stainless steel	24 VDC
U249042-0261-120-60	1/8"	1/16"	0.085	1/16"	0.115	125	Stainless steel	120/60 VAC
U249042-0261-12VDC	1/8"	1/16"	0.085	1/16"	0.115	125	Stainless steel	12 VDC
U249042-0261-24VDC	1/8"	1/16"	0.085	1/16"	0.115	125	Stainless steel	24 VDC
U249044-0261-120-60	1/8"	3/32"	0.165	5/64"	0.140	75	Stainless steel	120/60 VAC
U249044-0261-12VDC	1/8"	3/32"	0.165	5/64"	0.140	75	Stainless steel	12 VDC
U249044-0261-24VDC	1/8"	3/32"	0.165	5/64"	0.140	75	Stainless steel	24 VDC
U249045-0261-120-60	1/8"	1/8"	0.240	5/64"	0.140	45	Stainless steel	120/60 VAC
U249045-0261-12VDC	1/8"	1/8"	0.240	5/64"	0.140	45	Stainless steel	12 VDC
U249045-0261-24VDC	1/8"	1/8"	0.240	5/64"	0.140	45	Stainless steel	24 VDC

** For 3 way vacuum service, select a 3 way multipurpose valve.

Series 2 valves 1/8" NPT port, 3-way multi-purpose

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U249061-0261-120-60	1/8"	3/64"	0.050	3/64"	0.065	125	Stainless steel	120/60 VAC
U249061-0261-12VDC	1/8"	3/64"	0.050	3/64"	0.065	125	Stainless steel	12 VDC
U249061-0261-24VDC	1/8"	3/64"	0.050	3/64"	0.065	125	Stainless steel	24 VDC
U249062-0261-120-60	1/8"	1/16"	0.085	1/16"	0.115	100	Stainless steel	120/60 VAC
U249062-0261-12VDC	1/8"	1/16"	0.085	1/16"	0.115	100	Stainless steel	12 VDC
U249062-0261-24VDC	1/8"	1/16"	0.085	1/16"	0.115	100	Stainless steel	24 VDC
U249064-0261-120-60	1/8"	3/32"	0.165	5/64"	0.140	50	Stainless steel	120/60 VAC
U249064-0261-12VDC	1/8"	3/32"	0.165	5/64"	0.140	50	Stainless steel	12 VDC
U249064-0261-24VDC	1/8"	3/32"	0.165	5/64"	0.140	50	Stainless steel	24 VDC
U249065-0261-120-60	1/8"	1/8"	0.240	5/64"	0.140	25	Stainless steel	120/60 VAC
U249065-0261-12VDC	1/8"	1/8"	0.240	5/64"	0.140	25	Stainless steel	12 VDC
U249065-0261-24VDC	1/8"	1/8"	0.240	5/64"	0.140	25	Stainless steel	24 VDC

*MOPD - Maximum operating pressure differential between in and out ports, units are psi.

KIP SERIES 3 VALVES

- » 2/2 and 3/2 direct acting
- » Designed for long life and reliability
- » Ideally suited for air, liquid, and vacuum control in a broad range of sectors
- » Different materials available for compatibility with neutral gases and liquids
- » Custom fitting or electrical hardware installation available upon request

➔ Online at norgren.com

*For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingtontechnical@imi-precision.com

Technical Data

Operating Pressure:

2/2: 0 to 1000 psig, vacuum capable*
3/2: 0 to 250 psig, vacuum capable*

Orifice

Ø1/32" to Ø5/32"

MOPD:

2/2: 15 to 300 psig
3/2: 5 to 100 psig

Cv Range:

2/2: 0.035 to 0.450
3/2: 0.035 to 0.415

Actuation:

Solenoid

Coil:

AC, DC, rectified coil*

Coil Class Options:

B: 266°F (130°C) standard
H: 356°F (180°C)

Connection:

1/8" NPTF or 1/4" NPTF

Electrical Connection:

24" flying leads
or 1/4" spade terminal

Switching Function:

2/2: NO, NC
3/2: NO, NC, Multi-purpose, Directional Control

Voltage Options:

12VDC, 24VDC, 24/60VAC, 120/60VAC, 240/60VAC

Wattage:

7 Watts, nominal



Duty Cycle:

Continuous

Weight:

9oz, typical

Response Time:

9ms, typical

Material:

Body: brass or stainless steel

Internal wetted parts: 430FR & 300 series CRES



Series 3 valves 1/4" NPT port, 2-way normally closed

Part number	Port NPT	Orifice body	Cv body	Orifice stop	Cv stop	MOPD*	Body material	Voltage
U353114-0151-12VDC	1/4"	3/32"	0.185	N/A	N/A	250	Brass	12 VDC
U353114-0151-24VDC	1/4"	3/32"	0.185	N/A	N/A	250	Brass	24 VDC
U353114-0151-120-60	1/4"	3/32"	0.185	N/A	N/A	250	Brass	120/60 VAC
U353115-0151-12VDC	1/4"	1/8"	0.265	N/A	N/A	150	Brass	12 VDC
U353115-0151-24VDC	1/4"	1/8"	0.265	N/A	N/A	150	Brass	24 VDC
U353115-0151-120-60	1/4"	1/8"	0.265	N/A	N/A	150	Brass	120/60 VAC
U353116-0151-12VDC	1/4"	5/32"	0.330	N/A	N/A	100	Brass	12 VDC
U353116-0151-24VDC	1/4"	5/32"	0.330	N/A	N/A	100	Brass	24 VDC
U353116-0151-120-60	1/4"	5/32"	0.330	N/A	N/A	100	Brass	120/60 VAC
U353117-0151-12VDC	1/4"	3/16"	0.385	N/A	N/A	40	Brass	12 VDC
U353117-0151-24VDC	1/4"	3/16"	0.385	N/A	N/A	40	Brass	24 VDC
U353117-0151-120-60	1/4"	3/16"	0.385	N/A	N/A	40	Brass	120/60 VAC
U353118-0151-12VDC	1/4"	1/4"	0.450	N/A	N/A	15	Brass	12 VDC
U353118-0151-24VDC	1/4"	1/4"	0.450	N/A	N/A	15	Brass	24 VDC
U353118-0151-120-60	1/4"	1/4"	0.450	N/A	N/A	15	Brass	120/60 VAC

Series 3 valves 1/4" NPT port, 3-way normally closed**

Part number	Port NPT	Orifice body	Cv body	Orifice stop	Cv stop	MOPD*	Body material	Voltage
U353143-0151-12VDC	1/4"	5/64"	0.125	5/64"	0.145	100	Brass	12 VDC
U353143-0151-24VDC	1/4"	5/64"	0.125	5/64"	0.145	100	Brass	24 VDC
U353143-0151-120-60	1/4"	5/64"	0.125	5/64"	0.145	100	Brass	120/60 VAC
U353144-0151-12VDC	1/4"	3/32"	0.165	5/64"	0.145	75	Brass	12 VDC
U353144-0151-24VDC	1/4"	3/32"	0.165	5/64"	0.145	75	Brass	24 VDC
U353144-0151-120-60	1/4"	3/32"	0.165	5/64"	0.145	75	Brass	120/60 VAC
U353145-0151-12VDC	1/4"	1/8"	0.24	5/64"	0.145	45	Brass	12 VDC
U353145-0151-24VDC	1/4"	1/8"	0.24	5/64"	0.145	45	Brass	24 VDC
U353145-0151-120-60	1/4"	1/8"	0.24	5/64"	0.145	45	Brass	120/60 VAC

* MOPD - Maximum operating pressure differential between in and out ports, units are psi.

** For 3 way vacuum service select a 3 way multipurpose valve.

KIP SERIES 3 VALVES

Series 3 valves 1/4" NPT port, 3-way multi-purpose

Part number	Port NPT	Orifice body	Cv body	Orifice stop	Cv stop	MOPD*	Body material	Voltage
U353164-0151-12VDC	1/4"	3/32"	0.165	5/64"	0.140	50	Brass	12 VDC
U353164-0151-24VDC	1/4"	3/32"	0.165	5/64"	0.140	50	Brass	24 VDC
U353164-0151-120-60	1/4"	3/32"	0.165	5/64"	0.140	50	Brass	120/60 VAC
U353165-0151-12VDC	1/4"	1/8"	0.240	5/64"	0.140	25	Brass	12 VDC
U353165-0151-24VDC	1/4"	1/8"	0.240	5/64"	0.140	25	Brass	24 VDC
U353165-0151-120-60	1/4"	1/8"	0.240	5/64"	0.140	25	Brass	120/60 VAC

KIP SERIES 6 VALVES

- » 2/2 and 3/2 direct acting
- » Designed for long life and reliability
- » Ideally suited for air, liquid, and vacuum control in a broad range of sectors
- » Different materials available for compatibility with neutral gases and liquids
- » Custom fitting or electrical hardware installation available upon request

Technical Data

Operating Pressure:

2/2: 0 to 1000 psig, vacuum capable*
3/2: 0 to 250 psig, vacuum capable*

Orifice

2/2: Ø3/32" to Ø1/4" (2/2)
3/2: Ø5/64" to Ø1/4" (3/2)

MOPD:

2/2: 15 to 300 psig
3/2: 5 to 100 psig

Cv Range:

2/2: 0.350 to 0.900
3/2: 0.350 to 0.650

Actuation:

Solenoid

Coil:

AC, DC, rectified coil*

Coil Class Options:

B: 266°F (130°C) standard
H: 356°F (180°C)

Connection:

2/2: 1/8" NPTF, 1/4" NPTF,
3/8" NPTF, manifold mount
3/2: 1/8" NPTF, 1/4" NPTF,
manifold mount

Electrical Connection:

24" flying leads
or 1/4" spade terminal

Switching Function:

2/2: NO, NC
3/2: NO, NC, Multi-purpose,
Directional Control



Voltage Options:

12VDC, 24VDC, 24/60VAC,
120/60VAC, 240/60VAC

Wattage:

10 Watts, nominal

Duty Cycle:

Continuous

Weight:

15oz, typical

Response Time:

9ms, typical

Material:

Body: brass or stainless steel
Internal wetted parts:
430FR & 300 series CRES

Online at
norgren.com

*For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingontech@imi-precision.com

Series 6 valves, 1/4" NPT port, 2-way normally closed

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U652010-0241-120-60	1/4"	1/32"	0.035	NA	NA	1200	Stainless steel	120/60 VAC
U652010-0241-12VDC	1/4"	1/32"	0.035	NA	NA	1200	Stainless steel	12 VDC
U652010-0241-24VDC	1/4"	1/32"	0.035	NA	NA	1200	Stainless steel	24 VDC
U652012-0241-120-60	1/4"	1/16"	0.095	NA	NA	500	Stainless steel	120/60 VAC
U652012-0241-12VDC	1/4"	1/16"	0.095	NA	NA	500	Stainless steel	12 VDC
U652012-0241-24VDC	1/4"	1/16"	0.095	NA	NA	500	Stainless steel	24 VDC
U652014-0241-120-60	1/4"	3/32"	0.200	NA	NA	200	Stainless steel	120/60 VAC
U652014-0241-12VDC	1/4"	3/32"	0.200	NA	NA	200	Stainless steel	12 VDC
U652014-0241-24VDC	1/4"	3/32"	0.200	NA	NA	200	Stainless steel	24 VDC
U652015-0241-120-60	1/4"	1/8"	0.295	NA	NA	150	Stainless steel	120/60 VAC
U652015-0241-12VDC	1/4"	1/8"	0.295	NA	NA	150	Stainless steel	12 VDC
U652015-0241-24VDC	1/4"	1/8"	0.295	NA	NA	150	Stainless steel	24 VDC
U652016-0241-120-60	1/4"	5/32"	0.370	NA	NA	110	Stainless steel	120/60 VAC
U652016-0241-12VDC	1/4"	5/32"	0.370	NA	NA	110	Stainless steel	12 VDC
U652016-0241-24VDC	1/4"	5/32"	0.370	NA	NA	110	Stainless steel	24 VDC
U652018-0241-120-60	1/4"	1/4"	0.610	NA	NA	30	Stainless steel	120/60 VAC
U652018-0241-12VDC	1/4"	1/4"	0.610	NA	NA	30	Stainless steel	12 VDC
U652018-0241-24VDC	1/4"	1/4"	0.610	NA	NA	30	Stainless steel	24 VDC

*MOPD - Maximum operating pressure differential between in and out ports, units are psi.

Series 6 valves, 1/4" NPT port, 2-way normally open

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U652020-0241-120-60	1/4"	NA	NA	1/32"	0.035	1000	Stainless steel	120/60 VAC
U652020-0241-12VDC	1/4"	NA	NA	1/32"	0.035	1000	Stainless steel	12 VDC
U652020-0241-24VDC	1/4"	NA	NA	1/32"	0.035	1000	Stainless steel	24 VDC
U652022-0241-120-60	1/4"	NA	NA	1/16"	0.095	350	Stainless steel	120/60 VAC
U652022-0241-12VDC	1/4"	NA	NA	1/16"	0.095	350	Stainless steel	12 VDC
U652022-0241-24VDC	1/4"	NA	NA	1/16"	0.095	350	Stainless steel	24 VDC
U652024-0241-120-60	1/4"	NA	NA	3/32"	0.200	175	Stainless steel	120/60 VAC
U652024-0241-12VDC	1/4"	NA	NA	3/32"	0.200	175	Stainless steel	12 VDC
U652024-0241-24VDC	1/4"	NA	NA	3/32"	0.200	175	Stainless steel	24 VDC
U652025-0241-120-60	1/4"	NA	NA	1/8"	0.295	100	Stainless steel	120/60 VAC
U652025-0241-12VDC	1/4"	NA	NA	1/8"	0.295	100	Stainless steel	12 VDC
U652025-0241-24VDC	1/4"	NA	NA	1/8"	0.295	100	Stainless steel	24 VDC

KIP SERIES 6 VALVES

Series 6 valves, 1/4" NPT port, 3-way normally closed

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U652040-0241-120-60	1/4"	1/32"	0.035	1/32"	0.025	300	Stainless steel	120/60 VAC
U652040-0241-12VDC	1/4"	1/32"	0.035	1/32"	0.025	300	Stainless steel	12 VDC
U652040-0241-24VDC	1/4"	1/32"	0.035	1/32"	0.025	300	Stainless steel	24 VDC
U652042-0241-120-60	1/4"	1/16"	0.090	1/16"	0.115	200	Stainless steel	120/60 VAC
U652042-0241-12VDC	1/4"	1/16"	0.090	1/16"	0.115	200	Stainless steel	12 VDC
U652042-0241-24VDC	1/4"	1/16"	0.090	1/16"	0.115	200	Stainless steel	24 VDC
U652044-0241-120-60	1/4"	3/32"	0.180	3/32"	0.210	125	Stainless steel	120/60 VAC
U652044-0241-12VDC	1/4"	3/32"	0.180	3/32"	0.210	125	Stainless steel	12 VDC
U652044-0241-24VDC	1/4"	3/32"	0.180	3/32"	0.210	125	Stainless steel	24 VDC
U652046-0241-120-60	1/4"	5/32"	0.370	1/8"	0.240	50	Stainless steel	120/60 VAC
U652046-0241-12VDC	1/4"	5/32"	0.370	1/8"	0.240	50	Stainless steel	12 VDC
U652046-0241-24VDC	1/4"	5/32"	0.370	1/8"	0.240	50	Stainless steel	24 VDC
U652048-0241-120-60	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	120/60 VAC
U652048-0241-12VDC	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	12 VDC
U652048-0241-24VDC	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	24 VDC

Series 6 valves, 1/4" NPT port, 3-way multi-purpose

Part number	Port NPT	Orifice body	CV body	Orifice stop	CV stop	MOPD*	Body material	Voltage
U652060-0241-120-60	1/4"	1/32"	0.035	1/32"	0.025	275	Stainless steel	120/60 VAC
U652060-0241-12VDC	1/4"	1/32"	0.035	1/32"	0.025	275	Stainless steel	12 VDC
U652060-0241-24VDC	1/4"	1/32"	0.035	1/32"	0.025	275	Stainless steel	24 VDC
U652063-0241-120-60	1/4"	5/64"	0.135	5/64"	0.180	125	Stainless steel	120/60 VAC
U652063-0241-12VDC	1/4"	5/64"	0.135	5/64"	0.180	125	Stainless steel	12 VDC
U652063-0241-24VDC	1/4"	5/64"	0.135	5/64"	0.180	125	Stainless steel	24 VDC
U652064-0241-120-60	1/4"	3/32"	0.180	3/32"	0.210	100	Stainless steel	120/60 VAC
U652064-0241-12VDC	1/4"	3/32"	0.180	3/32"	0.210	100	Stainless steel	12 VDC
U652064-0241-24VDC	1/4"	3/32"	0.180	3/32"	0.210	100	Stainless steel	24 VDC
U652065-0241-120-60	1/4"	1/8"	0.750	1/8"	0.240	60	Stainless steel	120/60 VAC
U652065-0241-12VDC	1/4"	1/8"	0.750	1/8"	0.240	60	Stainless steel	12 VDC
U652065-0241-24VDC	1/4"	1/8"	0.750	1/8"	0.240	60	Stainless steel	24 VDC
U652066-0241-120-60	1/4"	5/32"	0.370	1/8"	0.240	40	Stainless steel	120/60 VAC
U652066-0241-12VDC	1/4"	5/32"	0.370	1/8"	0.240	40	Stainless steel	12 VDC
U652066-0241-24VDC	1/4"	5/32"	0.370	1/8"	0.240	40	Stainless steel	24 VDC
U652068-0241-120-60	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	120/60 VAC
U652068-0241-12VDC	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	12 VDC
U652068-0241-24VDC	1/4"	1/4"	0.650	1/8"	0.240	15	Stainless steel	24 VDC

*MOPD - Maximum operating pressure differential between in and out ports, units are psi.

KIP Q2 VALVES

- » 2/2 direct acting
- » Durable, lightweight plastic body
- » Quick push-to-connect fittings
- » NSF and cURus (UL and CSA) Certified
- » Minimal Pressure drop

→ Online at norgren.com

*For vacuum ratings and rectified coil options, call technical support at 860-677-0272 or email: farmingtontechnical@imi-precision.com

Technical Data

Operating Pressure:

2/2: 0 to 120 psig, vacuum capable*

Orifice

2/2: Ø1/8" to Ø5/16" (2/2)

MOPD:

2/2: 5-120 psig

Cv Range:

2/2: 0.228 to 1.000

Ambient and Media Temperature:

-10°F to 100°F (-12°C to 37°C)

Actuation:

Solenoid

Coil:

AC, DC, rectified coil*

Housing:

Yolk

Coil Class Options:

B: 266°F (130°C) standard
F: 311°F (155°C)

Connection:

2/2: 1/4", 3/8" push to connect

Electrical Connection:

1/4" spade terminal

Switching Function:

2/2: NC

Voltage Options:

12VDC, 24VDC, 24/60VAC, 120/60VAC, 240/60VAC

Wattage:

10 Watts, nominal

Duty Cycle:

Continuous

Weight:

5oz, typical

Response Time:

9ms, typical

Material:

Body: brass or stainless steel
Internal wetted parts: 430FR & 300 series CRES



Standard Valves

Part Number	Porting inch	Orifice diameter body	Cv factor body	MOPD*	Seal material	Body material	Voltage
Q212315-1351B-24VDC	1/4	1/8"	0.228	120	Food-Grade EPR**	Makroblend	24 VDC
Q212315-1351B-120-60	1/4	1/8"	0.228	120	Food-Grade EPR**	Makroblend	120/60 VAC

*MOPD - Maximum operating pressure differential between in and out ports, units are psi.

** Food-Grade EPR seals are NSF approved

Series 82410

2/2-way valve

- » Pilot operated solenoid valves
- » General purpose coils
- » High flow rate
- » Anti water hammer feature standard

Technical Data

Medium:

For neutral gases and liquids

Operating pressure:

1.45 to 232 psi (0.1 to 16 bar)

Switching function:

Normally closed

Flow direction:

Arrow on body indicates direction

Fluid temperature:

14°F up to max. 194°F
(-10 °C up to max. +90 °C)

Ambient temperature:

14°F up to max. 122°F
(-10 °C up to max. +50 °C)

Mounting position:

As required, preferably with solenoid vertical on top

Material:

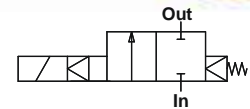
Body: Brass

Seat seal: NBR

Internal parts:

Stainless steel, PVDF, copper

Note: For contaminated fluids the use of a strainer upstream of the valve is recommended.



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8241000.6852.02400	1/4"	0.3	2.3	1.45-232	24 VDC	1.0
8241000.6852.12060	1/4"	0.3	2.3	1.45-232	120/60 VAC	1.0
8241100.6852.02400	3/8"	0.4	3.5	1.45-232	24 VDC	1.0
8241100.6852.12060	3/8"	0.4	3.5	1.45-232	120/60 VAC	1.0
8241200.6852.02400	1/2"	0.5	4.4	1.45-232	24 VDC	1.1
8241200.6852.12060	1/2"	0.5	4.4	1.45-232	120/60 VAC	1.1
8241300.6852.02400	3/4"	0.8	6.9	1.45-232	24 VDC	1.4
8241300.6852.12060	3/4"	0.8	6.9	1.45-232	120/60 VAC	1.4
8241400.6852.02400	1"	1.0	10.9	1.45-232	24 VDC	2.1
8241400.6852.12060	1"	1.0	10.9	1.45-232	120/60 VAC	2.1

Series 82740

2/2-way valve

- » Pilot operated solenoid valves
- » General purpose coils
- » High flow rate
- » Damped operation
- » Anti water hammer feature standard

Technical Data

Medium:
For neutral gases and liquids

Operating pressure:
1.45 to 232 psi (0.1 to 16 bar)

Switching function:
Normally closed

Flow direction:
Arrow on body indicates direction

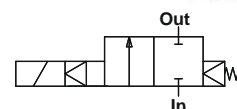
Fluid temperature:
14°F up to max. 194°F
(-10 °C up to max. +90 °C)

Ambient temperature:
14°F up to max. 122°F
(-10 °C up to max. +50 °C)

Mounting position:
As required, preferably with solenoid vertical on top

Material:
Body: 316 Stainless steel
Seat seal: Fluorocarbon
Internal parts:
Stainless steel, PVDF

Note: For contaminated fluids the use of a strainer upstream of the valve is recommended.



→ Online at norgren.com

Standard Models

Model	Connection	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8274003.6852.02400	1/4"	0.3	2.3	1.45-232	24 VDC	1.0
8274003.6852.12060	1/4"	0.3	2.3	1.45-232	120/60 VAC	1.0
8274103.6852.02400	3/8"	0.4	3.5	1.45-232	24 VDC	1.0
8274103.6852.12060	3/8"	0.4	3.5	1.45-232	120/60 VAC	1.0
8274203.6852.02400	1/2"	0.5	4.4	1.45-232	24 VDC	1.1
8274203.6852.12060	1/2"	0.5	4.4	1.45-232	120/60 VAC	1.1
8274303.6852.02400	3/4"	0.8	6.9	1.45-232	24 VDC	1.4
8274303.6852.12060	3/4"	0.8	6.9	1.45-232	120/60 VAC	1.4
8274403.6852.02400	1"	1.0	10.9	1.45-232	24 VDC	2.1
8274403.6852.12060	1"	1.0	10.9	1.45-232	120/60 VAC	2.1

Series 82640

2/2-way valve

- » Direct lift solenoid valves
- » General purpose coils
- » For neutral gases and liquids
- » Diaphragm valves

Technical Data

Medium:

Solenoid valve for air, water, and other neutral fluids

Operating pressure:

0 to 60 psi (0 to 14 bar)

Switching function:

Normally closed

Flow direction:

Arrow on body indicates direction

Fluid temperature:

14°F up to max. 194°F
(-10 °C up to max. +90 °C)

Ambient temperature:

14°F up to max. 122°F
(-10 °C up to max. +50 °C)

Mounting position:

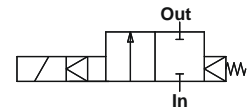
As required, preferably with solenoid vertical on top

Material:

Body: Brass
Seat seal: NBR
Internal parts: Stainless steel, PVDF, Brass
For contaminated fluids the use of a strainer upstream of the valve is recommended.

Features:

High flow rate
For robust industry applications
Damped operation
For systems with low or fluctuating pressure
Valve operates without differential pressure (Zero Delta P)



→ Online at norgren.com

Standard Models

Model	Connection	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8264000.6852.02400	1/4"	0.3	2.3	0-60	24 VDC	1.0
8264000.6852.12060	1/4"	0.3	2.3	0-60	120/60 VAC	1.0
8264100.6852.02400	3/8"	0.4	3.5	0-60	24 VDC	1.0
8264100.6852.12060	3/8"	0.4	3.5	0-60	120/60 VAC	1.0
8264200.6852.02400	1/2"	0.5	3.9	0-60	24 VDC	1.1
8264200.6852.12060	1/2"	0.5	3.9	0-60	120/60 VAC	1.1
8264300.6852.02400	3/4"	0.8	6.7	0-60	24 VDC	1.4
8264300.6852.12060	3/4"	0.8	6.7	0-60	120/60 VAC	1.4
8264400.6852.02400	1"	1	9.2	0-60	24 VDC	2.1
8264400.6852.12060	1"	1	9.2	0-60	120/60 VAC	2.1

Series 84490

2/2-way valve

- » Direct lift solenoid valves
- » General purpose coils
- » For neutral gases and liquids
- » Diaphragm valves

Technical Data

Medium:

Solenoid valve for air, water, and other neutral fluids

Operating pressure:

0 to 60 psi (0 to 4 bar)

Switching function:

Normally closed

Flow direction:

Arrow on body indicates direction

Fluid temperature:

14°F up to max. 194°F
(-10 °C up to max. +90 °C)

Ambient temperature:

14°F up to max. 122°F
(-10 °C up to max. +50 °C)

Mounting position:

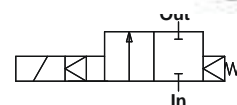
As required, preferably with solenoid vertical on top

Material:

Body: 316 Stainless steel
Seat seal: Fluorocarbon
Internal parts: Stainless steel, PVDF, Brass
For contaminated fluids the use of a strainer upstream of the valve is recommended.

Features:

High flow rate
For robust industry applications
Anti water hammer standard
Valve operates without differential pressure (Zero Delta P)



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8449003.6852.02400	1/4"	0.3	2.3	0-60	24 VDC	1.0
8449003.6852.12060	1/4"	0.3	2.3	0-60	120/60 VAC	1.0
8449103.6852.02400	3/8"	0.4	3.5	0-60	24 VDC	1.0
8449103.6852.12060	3/8"	0.4	3.5	0-60	120/60 VAC	1.0
8449203.6852.02400	1/2"	0.5	3.9	0-60	24 VDC	1.1
8449203.6852.12060	1/2"	0.5	3.9	0-60	120/60 VAC	1.1
8449303.6852.02400	3/4"	0.8	6.7	0-60	24 VDC	1.4
8449303.6852.12060	3/4"	0.8	6.7	0-60	120/60 VAC	1.4
8449403.6852.02400	1"	1	9.2	0-60	24 VDC	2.1
8449403.6852.12060	1"	1	9.2	0-60	120/60 VAC	2.1

Series 82410

2-Way Valves – Explosion Proof Coil Enclosure

- » Pilot operated solenoid valve for hazardous locations
- » High flow rate
- » Anti water hammer feature standard
- » Compact design

Online at
norgren.com

Technical Data

Medium:
Neutral gases and liquids

Function:
Normally closed

Flow direction:
Arrow on body indicator flow

Mounting position:
As required. Preferably with solenoid vertical on top.

Electrical connection:
Stranded wire 18" long, (ground is green wire) threaded pipe 1/2"-14 NPT

Operating pressure:
1.45 to 232 psi
0.1 to 16 bar

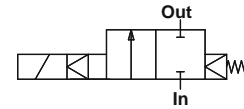
Fluid temperature:
14°F to 176°F
-10°C to 80°C

Ambient temperature:
14°F to 122°F
-10°C to 50°C

Power consumption:
DC 13.6 Watts
AC 14.0 Volt Amps

Protection class:
ANSI/NEMA 1, 3, 4,
4X, 6, 6P, 7, and 9
FM – File No. 2Z2A6.AE
CSA – File No. LR 57643-6

Materials:
Valve cover and body: Brass
Seat seal: NBR
Internal parts:
Stainless steel, PVDF



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8241100.3826.02400	3/8"	0.4	3.5	1.45-232	24 VDC	0.99
8241100.3827.12060	3/8"	0.4	3.5	1.45-232	120/60 VAC	0.99
8241200.3826.02400	1/2"	0.5	4.4	1.45-232	24 VDC	1.10
8241200.3827.12060	1/2"	0.5	4.4	1.45-232	120/60 VAC	1.10
8241300.3826.02400	3/4"	0.8	6.9	1.45-232	24 VDC	1.43
8241300.3827.12060	3/4"	0.8	6.9	1.45-232	120/60 VAC	1.43
8241400.3826.02400	1"	1	10.9	1.45-232	24 VDC	2.09
8241400.3827.12060	1"	1	10.9	1.45-232	120/60 VAC	2.09

Valve with solenoid

Connection NPT Inch	L Inch	B Inch	H Inch	H1 Inch
3/8	2.36	2.36	3.84	3.39
1/2	2.64	2.36	3.93	3.39
3/4	3.15	2.36	4.19	3.54
1	3.74	2.36	4.58	3.77

Series 82740

2-Way Valves – Explosion Proof Coil Enclosure

- » Pilot operated solenoid valve for hazardous locations
- » Anti water hammer feature
- » Compact design
- » High flow rate



Technical Data

Medium:

For slightly aggressive gases and liquids

Function:

Normally closed

Flow direction:

Arrow on body indicates direction

Mounting position:

As required. Preferably with solenoid vertical on top.

Electrical connection:

3 wire-18" leads,
(ground is green wire)
threaded pipe 1/2"-14 NPT

Operating pressure:

1.45 to 232 psi
0.1 to 16 bar

Fluid temperature:

14°F to 176°F
-10°C to 80°C

Ambient temperature:

14°F to 122°F
-10°C to 50°C

Power consumption:

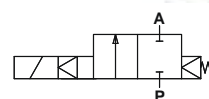
DC 13.6 Watts
AC 14.0 Volt Amps

Protection class:

ANSI/NEMA 1, 3, 4,
4X, 6, 6P, 7, and 9
FM – File No. 2Z2A6.AE
CSA – File No. LR 57643-6

Materials:

Valve cover and body:
Stainless steel
316 Seat seal: NBR
Internal parts:
Stainless steel, PVDF



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8274100.3826.02400	3/8"	0.4	3.5	1.45-232	24 VDC	0.99
8274100.3827.12060	3/8"	0.4	3.5	1.45-232	120/60 VAC	0.99
8274200.3826.02400	1/2"	0.5	4.4	1.45-232	24 VDC	1.10
8274200.3827.12060	1/2"	0.5	4.4	1.45-232	120/60 VAC	1.10
8274300.3826.02400	3/4"	0.8	6.9	1.45-232	24 VDC	1.43
8274300.3827.12060	3/4"	0.8	6.9	1.45-232	120/60 VAC	1.43
8274400.3826.02400	1"	1	10.9	1.45-232	24 VDC	2.09
8274400.3827.12060	1"	1	10.9	1.45-232	120/60 VAC	2.09

Valve with solenoid

Connection NPT Inch	L Inch	B Inch	H Inch	H1 Inch
3/8	2.36	2.36	3.84	3.39
1/2	2.64	2.36	3.93	3.39
3/4	3.15	2.36	4.19	3.54
1	3.74	2.36	4.58	3.77

SERIES 82640

2-Way Valves – Explosion Proof Coil Enclosure

- » Direct lift solenoid valve
- » Diaphragm valve for hazardous locations
- » Anti water hammer standard
- » Compact design
- » High flow rate

→ Online at
norgren.com

Technical Data

Medium:
Neutral gases and liquids

Function:
Normally closed

Flow direction:
Arrow on body indicates direction

Mounting position:
As required. Preferably with solenoid vertical on top.

Electrical connection:
3 wire-18" leads,
(ground is green wire)
threaded pipe 1/2"-14 NPT

Operating pressure:
0 to 145 psi
0 to 10 bar

Minimum differential pressure:
0 psi required

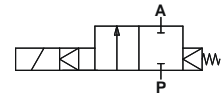
Fluid temperature:
14°F to 176°F
-10°C to 80°C

Ambient temperature:
14°F to 122°F
-10°C to 50°C

Power consumption:
DC 13.6 watts
AC 14.0 volts amps

Protection class:
ANSI/NEMA 1, 3, 4, 4X, 6, 6P, 7, and 9
FM – File No. 2Z2A6.AE
CSA – File No. LR 57643-6

Materials:
Valve cover and body: Brass
Seat seal: NBR
Internal parts: Stainless steel, PVDF



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8264100.3826.02400	3/8"	0.4	3.5	0-145	24 VDC	1.84
8264100.3827.12060	3/8"	0.4	3.5	0-145	120/60 VAC	1.84
8264200.3826.02400	1/2"	0.5	3.9	0-145	24 VDC	2.05
8264200.3827.12060	1/2"	0.5	3.9	0-145	120/60 VAC	2.05
8264300.3826.02400	3/4"	0.8	6.7	0-145	24 VDC	2.27
8264300.3827.12060	3/4"	0.8	6.7	0-145	120/60 VAC	2.27
8264400.3826.02400	1"	1	9.2	0-145	24 VDC	2.94
8264400.3827.12060	1"	1	9.2	0-145	120/60 VAC	2.94

Valve with solenoid

Connection NPT Inch	L Inch	B Inch	H Inch	H1 Inch
3/8	2.36	2.36	4.23	3.78
1/2	2.64	2.36	4.33	3.78
3/4	3.15	2.36	4.63	3.98
1	3.74	2.36	4.95	4.13

SERIES 84490

2-Way Valves – Explosion Proof Coil Enclosure

- » Direct lift solenoid valve
- » Diaphragm valve for hazardous locations
- » Damped operation
- » Compact design
- » High flow rate

➔ Online at
norgren.com

Technical Data

Medium:

For slightly aggressive gases and liquids

Function:

Normally closed

Flow direction:

Determined

Mounting position:

As required. Preferably with solenoid vertical on top.

Electrical connection:

3 wire-18" leads,
(ground is green wire)
threaded pipe 1/2"-14 NPT

Operating pressure:

0 to 145 psi
0 to 10 bar

Minimum differential pressure:

0 psi required

Fluid temperature:

14°F to 176°F
-10°C to 80°C

Ambient temperature:

14°F to 122°F
-10°C to 50°C

Power consumption:

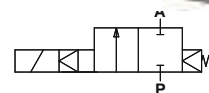
DC 13.6 Watts
AC 14.0 Volt Amps

Protection class:

ANSI/NEMA 1, 3, 4, 4X, 6, 6P, 7, 9
FM – File No. 2Z2A6.AE
CSA – File No. LR 57643-6

Materials:

Valve cover and body:
316 Stainless steel
Seat seal: NBR
Internal parts: Stainless steel, PVDF



Standard Models

Model	Connection (NPT)	Orifice (inch)	Cv-Value	MOPD (psi)	Voltage	Weight (lbs)
8449100.3826.02400	3/8"	0.4	3.5	0-145	24 VDC	1.84
8449100.3827.12060	3/8"	0.4	3.5	0-145	120/60 VAC	1.84
8449200.3826.02400	1/2"	0.5	3.9	0-145	24 VDC	2.05
8449200.3827.12060	1/2"	0.5	3.9	0-145	120/60 VAC	2.05
8449300.3826.02400	3/4"	0.8	6.7	0-145	24 VDC	2.27
8449300.3827.12060	3/4"	0.8	6.7	0-145	120/60 VAC	2.27
8449400.3826.02400	1"	1	9.2	0-145	24 VDC	2.94
8449400.3827.12060	1"	1	9.2	0-145	120/60 VAC	2.94

Valve with solenoid

Connection NPT Inch	L Inch	B Inch	H Inch	H1 Inch
3/8	2.36	2.36	4.23	3.78
1/2	2.64	2.36	4.33	3.78
3/4	3.15	2.36	4.63	3.98
1	3.74	2.36	4.95	4.13

SOLENOID OPERATED VALVE

5/2 with soft seal

- » Noise reduction through integrated pilot valve silencer
- » High flow performance
- » Manual override standard on most models
- » Quick change of solenoids

→ Online at norgren.com

Technical Data

Port sizes:
1/4" and 3/8" NPT

Fluid:
Filtered air, lubricated or non-lubricated

Fluid temperature:
15°F to 105°F







Ambient temperature:
15°F to 140°F

Materials:
Housing
Clear anodized aluminum
Seals: BUNA N

Operating pressure:
Maximum 150 psig (10.3 bar)



Models –5/2 Solenoid/Air Spring

Part number	Function	Actuation	Port size NPT	Flow Cv	Operating pressure PSI	Voltage	Connector type	Coil	Connector	Spare kit
										
2636070024702400	5/2	Sol/air spring	1/4	1.4	25-150	24 VDC	Cable Grip	0000000024602400	0570275000000000	8110831000000000
2636070024712060	5/2	Sol/air spring	1/4	1.4	25-150	120 VAC	Cable Grip	0000000024612060	0570275000000000	8110831000000000
										
2636070-0247N-G	5/2	Sol/air spring	1/4	1.4	25-150	120 VAC	1/2" NPT conduit	0000000024612060	0661374000000000	8110831000000000

SERIES 97100 NAMUR

5/2 valves

- » Indirectly controlled soft seal spool valves
- » Solenoid actuated
- » Port size 1/4" NPT
- » NAMUR Interface

→ Online at norgren.com

Technical Data

Medium:
Filtered, non-lubricated and dry compressed air*

Operation:
Solenoid, indirectly controlled

Mounting position: as required

Flow direction: Fixed

Nominal size:
Connection 1: 1/4" NPT
Connection 3 and 5: 1/8" NPT




Temperatures:
Valve: -13°F to 122°F
(-25 °C to +50 °C)

Material:
Body: Aluminium anodized
Pilot flange: PBT
Seals: NBR

Operating pressure:
Maximum 116 psig (8 bar)



Models –5/2 Solenoid/Solenoid

Part number	Function	Actuation	Inlet port NPT	Exhaust port NPT	Outlet port	Flow Cv	Voltage	Coil	Connector
									
9710010-3037N-D	5/2	Sol/Sol	1/4	1/8	Flange	0.75	24 VDC	0000000303602400	0661374000000000
9710010-3037N-G	5/2	Sol/Sol	1/4	1/8	Flange	0.75	120/60 VAC	0000000303612060	0661374000000000

DOUBLE VALVE

Series XSz with dynamic monitoring

- » Inherently fail-safe without residual pressure
- » Dynamic self monitoring
- » Double valve control system
- » For use with pneumatic clutch and brake systems and other 3-way safety functions, such as monitored dump valve with feedback system
- » Poppet design with feedback signal ports
- » Fast exhaust capability
- » Meets the intent of Press Safety Standards - ANSI B11-1 2009; CSA Z142-10, BG692, OSHA Code 29 part 1910.217 (b) (7) (I and XI). Conforms to ISO 13849-1 (performance level "e" category IV)
- » Improves safety and reduces downtime
- » Quick and easy adjustment of 'overlap' on mechanical presses
- » No additional electrical monitoring required
- » Easily fitted into existing systems
- » Norgren®/Herion® XSz safety valves are also available in 5-port configuration

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated Shell Hydrol DO 32, Esso Febis K 32 (as of July 1992) or comparable oil with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519), Filtration 25 - 50 mm

Operating pressure:

XSz 8 & 10
43 to 145 psig (3 to 10 bar)
XSz 20, 32 & 50
29 to 116 psig (2 to 8 bar)

Temperature range:

14°F to 140°F (-10 to 60°C)
To secure the safety function of the valve at subzero temperatures it is important that the air is dry enough to prevent an icing of valve and silencer.

Flow:

XSz 8 Cv up to 1.7
XSz 10 Cv up to 6.8
XSz 20 Cv up to 13.9
XSz 32 Cv up to 31.4
XSz 50 Cv up to 57.6

Mounting position:

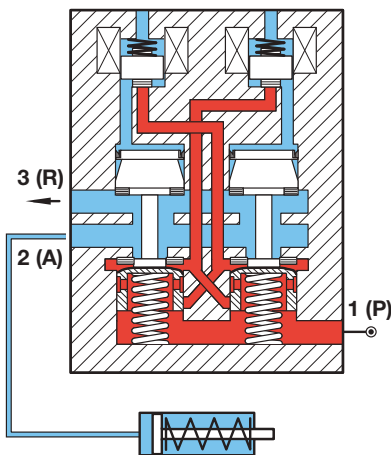
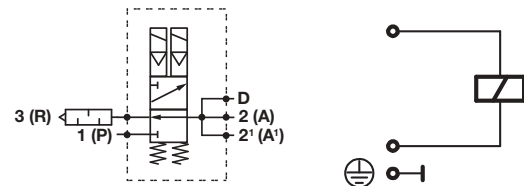
Preferably vertically

Additional equipment:

Soft clutch module
Soft brake module
Safety silencer
Failure indication elements
Nozzle for overlap adjustment (exclusively XSz32 and 50)

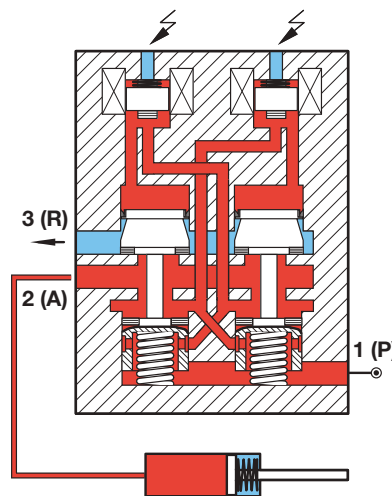
Materials:

Body: aluminium
Seals: polyurethane (AU), NBR
Materials: Body: aluminium
Seals: polyurethane (AU), NBR



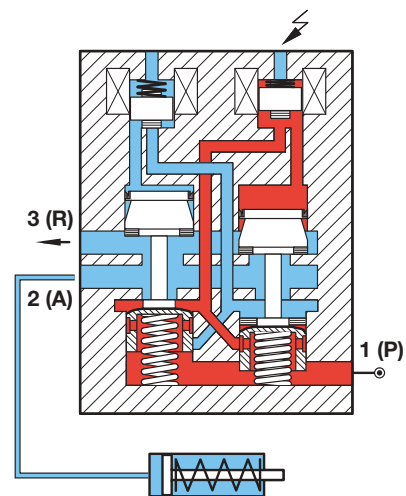
Solenoids de-energized:

A port is exhausted. P port is closed, no connection from P to A. No residual pressure on port A as port A is freely exhausted through port R. No acting pressure on port A.



Solenoids energized:

Pilots are synchronously energized. Connection from port P to A. Working pressure on A. No passage from P to R. Dynamic self monitoring of both pilot systems, checking each other at each cycle for proper functioning.



Malfunction:

Pilots non-synchronously energized. Dynamic monitor notices failure operation and prevents the pistons from giving connection from P to A. Synchronously port A exhausts through R. No residual pressure remains in the system since P and A are not connected. The pilot line has lost the pressure and is locked.

1 (P) = Air pressure port / 2 (A) = Power port (clutch / brake) / 3 (R) = Exhaust
Norgren® XSz Safety valves comply with the Category IV of DIN EN ISO 13849-1, if the operating system has been designed and realized according to Category IV.



DOUBLE VALVE

Series XSz with dynamic monitoring

Model	Voltage	Type	Port size			Coil	Connector
			1 (P)	2 (A)	3 (R)		
							
2492807305312060	120 VAC	XSz-8	1/4"	1/4"	3/8"	0000000305212060	0680003000000000
2492807305302400	24 VDC	XSz-8	1/4"	1/4"	3/8"	0000000305202400	0680003000000000
							
2492931305312060	120 VAC	XSz-10	1/2"	1/2"	3/4"	0000000305212060	0680003000000000
2492931305302400	24 VDC	XSz-10	1/2"	1/2"	3/4"	0000000305202400	0680003000000000
							
2493039020112060	120 VAC	XSz-20	3/4"	3/4"	1"	000000020012060	0570275000000000
2493039020102400	24 VDC	XSz-20	3/4"	3/4"	1"	000000020002400	0570275000000000
							
2493120080112060	120 VAC	XSz-32	1"	1"	1-1/2"	000000080012060	0570275000000000
2493120080102400	24 VDC	XSz-32	1"	1"	1-1/2"	000000080002400	0570275000000000
							
2493220080112060	120 VAC	XSz-50	1-1/2"	2"	2"	000000080012060	0570275000000000
2493220080102400	24 VDC	XSz-50	1-1/2"	2"	2"	000000080002400	0570275000000000

1 (P) = Pressure Port, 2(A)= Working Port, 3 (R)= Exhaust Port
 CSA certification should requested with the purchase order

ICO3S

3/2, 1/4" and 1/2" valve

- » Direct acting solenoid valve
- » High flow
- » A direct acting solenoid operated valve for the control of pneumatic or hydraulic operated equipment
- » Reliable and long life, ideal for a one time installation

➔ Online at norgren.com

Technical Data

ATEX, CSA, GOST K & R, IECEX and NEMA 4X

Maximum inlet pressure:
174 psi (12 bar)

Flow rates:
C_v = 0.6 US gpm for 1 psi
K_v = 8.64 l/min for 1 bar (15 psi)

Temperature ratings:
-67°F/194°F- (55°C/90°C) Media

Ambient temperature:
-67°F/194°F (-55°C/90°C) **T4**
-67°F/122°F (-55°C/50°C) **T6**

Valve size:
1/4" poppet valve

Process connections:
1/4" and 1/2" NPT

Conduit connection:
M20 x 1.5 conduit thread,
1/2" NPT

Signal connection:
1/4" NPT


Media:
Liquid & gases

Weight:
5.5 lbs. (2.5 kg)

Materials:
Solenoid pot - stainless steel - BFC 316
Top cover - stainless steel - BFC 316
Valve body & trim materials -
316 stainless steel - 316L stainless steel
O-rings & seals - nitrile (NBR) Coil
insulation - class H



Models – 3/2 Solenoid

Part number	ATEX certification	Function	Operation	Port size NPT	Seat/seat materials	Conduit connection	Voltage
 Y013AA1H1BS	Ex d	3/2	Automatic	1/4	Nitrile -67°F to 194°F	20 mm x 1.5 mm ISO (F)	24 VDC 3 watts
Y013AA3H1BS	Ex d	3/2	Automatic	1/2	Nitrile -67°F to 194°F	20 mm x 1.5 mm ISO (F)	24 VDC 3 watts
Y013AA1H2BS-LP	Ex d	3/2	Automatic	1/4	FPM -67°F to 194°F	20 mm x 1.5 mm NPT	24 VDC 1 watt

ICO4S

3/2, 1/2" valve

- » Direct acting solenoid valve
- » Low pressure, high flow
- » Reliable and long life, ideal for a one time installation
- » Control of pneumatic or hydraulic operated equipment
- » ATEX, CSA, GOST K & R, IECEx and NEMA 4X

➔ Online at
norgren.com

Technical Data

Maximum inlet pressure:

290 psi (20 bar)

Flow rates:

$C_v = 0.8$ US gpm for 1 psi Δp

$K_v = 11.5$ l/min for 1 bar

(15 psi) Δp

Temperature ratings:

-4°F/194°F (-20°C/90°C) Media

Ambient temperature:

-76°F/194°F (-60°C/90°C) T4

-76°F/118°F (-60°C/48°C) T6

Valve size:

1/4" balanced poppet valve

Weight: 12 lb. (5.5 kg)

Process connections: 1/4" NPT

Conduit connection:

M20 x 1.5 conduit thread

Media:

Liquid & gases

Materials:

Solenoid pot - stainless steel - BFC 316

Top cover - stainless steel - BFC 316

Valve body & trim materials -

316 stainless steel - 316L stainless steel

to the valve body and trim materials

O-rings seats & seals - high nitrile (NBR)

Coil insulation - class H



Models -3/2 Solenoid

Part number	ATEX certification	Function	Operation	Port size NPT	Seat/seat materials	Conduit connection	Voltage
Y123AA1H1BS	Ex d	3/2	Automatic	1/2	Nitrile -67°F to 194°F	20 mm x 1.5 mm ISO (F)	24 VDC 4.5 watts

QEV

1/4" to 1" Quick Exhaust Valves

- » Inlet - outlet - exhaust
- » Certification: No "t" class rating applicable for quick exhaust valves or Ambient temperature identical to media temperatures
- » Atex certification none, not applicable

→ Online at norgren.com

Technical Data

Max. inlet pressure:
0.5-12 bar (7-174 psi)

Temperature ratings:
Media (min/max): -50°C/80°C
(-58°F/176°F)
Ambient: must be used within 'T' class temperature ranges shown

Process connections:
NPT

Conduit / Signal Conns:
None

Media:
Customer to specify and confirm compatibility


Operation:
Automatic

Leak performance:
Bubble tight

Materials:
Valve body & trim - 316L stainless steel
O-Rings seats & seals - nitrile
Paint finish - stainless steel construction - unpainted



Models

Part number	Port size NPT	Flow rate Cv	Weight lb.
			
QEV13AA1H00S	1/4	1.6/2.1 USgpm for 1 psi Δp	0.77
QEV13AA3H00S	1/2	6.4/5.5 USgpm for 1 psi Δp	1.21
QEV13AA5H00S	3/4	10.4/10.8 USgpm for 1 psi Δp	3.26

Low Power ICO3 Valves



67% reduction
in power
consumption

The Low Power ICO3S range of direct acting solenoid valves provide a low power option for high-flow instrument change over applications. With a nominal steady state power consumption of 1.0W, the Low Power ICO3S exhibits a 67% reduction in steady-state power consumption when compared to the standard ICO3S, while retaining identical flow and safety integrity level due to an uncompromised 11 lb (5 kg) spring-force and associated high force/friction ratio.

Unlike many other Low Power valves, the Maxseal Low Power ICO3S does not achieve reduced energy consumption through a weakened return spring or internal piloting. Instead, the valve uses an integrated PWM driver to regulate the power delivered to the coil. The benefit of this approach is that internally the valve is in all ways identical to a standard ICO3S.

The Low Power ICO3S has been developed for applications where power supply is at a premium, such as remote shale gas installations. Often such installations are renewable, generator or battery powered, and as such, a power consumption of just 1.0W per valve makes the Low Power ICO3S the solenoid valve of choice, particularly where safety is paramount.



Find out more
www.norgren.com

- > Full 316L Stainless Steel construction
- > IP66/X8 ingress protection
- > Saves 650kWh over 25 year life (compared with standard 4w valve)

[Switches & Sensors]

A comprehensive range of Pressure Sensors, providing a range of different options for converting pressure changes into an electrical signal. The range includes electromechanical and electronic switches suitable for pneumatic and all fluid applications. The range also contains NAS Nut / Thread Sensors applicable to a wide variety of industrial applications.



Vibration resistant



Heavy or light duty application

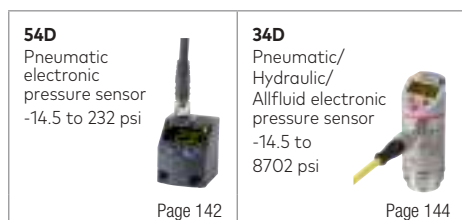


FAST FIND GUIDE

Pressure Switches



Solid State Switches



Industrial Communication



NAS Nut/Thread Sensors



18D

PNEUMATIC PRESSURE SWITCHES (DIAPHRAGM TYPE)
VAC - 435 PSI

- » Adjustable setpoint
- » Gold-plated contacts
- » Vibration resistant to 15 g
- » Microswitch approved by UL and CSA

Technical Data

Medium

Neutral, gaseous and liquid fluids

Operation

Diaphragm

Mounting position

Optional

Operating pressure

Vac to 435 psi

Over pressure

1150 psi

Ambient temperature14°F to 185°F (-10°C to 85°C) (NBR)
32°F to 175°F (0°C to 80°C) (FPM)**Fluid temperature**14°F to 185°F (-10°C to 85°C) (NBR)
32°F to 175°F (0°C to 80°C) (FPM)

Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

ViscosityUp to 1000 mm²/s (±450 ssu).**Repeatability**+/- 3% for vacuum
+/- 4% of final value
(depending on regulating pressure)**Electrical connection**

DIN 43650

Switching element

Microswitch with gold plated contacts

Degree of protection

IP 65

Weight

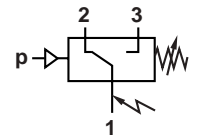
.4 lbs (0.2 kg)

Materials

Housing: aluminum

Seals: NBR, FPM

'O'-ring: NBR



Model numbers - pneumatic/lubrication applications

Port size	Type	Pressure range psi (bar)		Switching pressure difference psi* (bar)		Sealing	Model
				lower range	upper range		
1/4 NPT	Female	-14 - 0	(-1 - 0)	2 (0.15)	3 (0.18)	FPM	0880120000000000
-	Flange	-14 - 0	(-1 - 0)	2 (0.15)	3 (0.18)	FPM	0881100000000000
1/4 NPT	Female	3 - 30	(0.2 - 2)	2 (0.15)	4 (0.27)	FPM	0880220000000000
-	Flange	3 - 30	(0.2 - 2)	2 (0.15)	4 (0.27)	NBR	0881200000000000
1/4 NPT	Female	7 - 120	(0.5 - 8)	4 (0.2)	9 (0.65)	NBR	0880320000000000
-	Flange	7 - 120	(0.5 - 8)	4 (0.2)	9 (0.65)	NBR	0881300000000000
1/4 NPT	Female	15 - 230	(1 - 16)	4 (0.2)	13 (0.90)	NBR	0880420000000000
-	Flange	15 - 230	(1 - 16)	4 (0.2)	13 (0.90)	NBR	0881400000000000
1/4 NPT	Female	15 - 435	(1 - 30)	15 (1.0)	75 (5.0)	NBR	0880620000000000

Note: Switches are supplied with DIN 43650 mating connector.

* Switching pressure difference (hysteresis) is not adjustable. Typical valves are shown.

Caution: Observe switching range. Do not subject switch to maximum allowable pressure during normal operation. Even short pressure peaks must not exceed this value.

More info and CAD available online at:
norgren.com

18D

PNEUMATIC PRESSURE SWITCHES (DIAPHRAGM TYPE)

VAC - 435 PSI

Switching capacity

Commutator with gold plated contacts

Current type	Load type *2)	U min [V]	Max. permanent current I _{max} [A] at U *1)					Contact life
			(UL & CSA) M 12x1 30 V	DIN EN 175301-803, form A				
			30 V	30 V	48 V	125 V	250 V	
AC	ohmic, inductive	6	0.1	0.1	0.1	0.1	0.1	≥ 2 x 10 ⁵ switching cycles
DC	ohmic, inductive	6	0.1	—	—	—	—	

Reference number: 20/min, Reference temperature: +20°C.

I_{min} = 1 mA at 24 VDC or 5 mA at 6 VDC

*1) Higher currents (5 A max) will cause a reduction of the durability of the micro-switch contacts. Furthermore additional measurements has to be taken to fulfil the EMV regulation 2004/108/EG by the manufacturer

*2) Spark quenching/overload protection will be necessary using inductive loads.

Recommended circuit

Spark quenching and EMV intrinsically safe

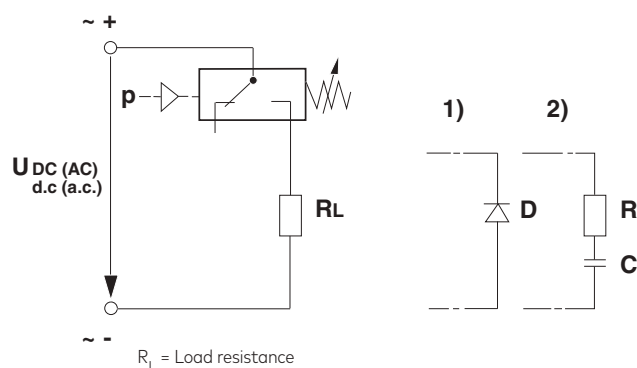
1. Quick diode (D) with $t_v \leq 200$ ns, parallel to inductive load.

2. RC link in parallel to load in parallel to switching contact.

Dimensioning principles:

R_L in Ω \approx $0.2 \times R_{Load}$ in Ω

C in [μ F] \approx I_{Load} in [A]



Switching function



Plug DIN EN 175301-803, form A
Microswitch SPDT
Terminals 1 - 3: Contacts close on rising pressure.
Terminals 1 - 2: Contacts open on rising pressure.



Switching function IEC 947-5-2, M12 x 1:
Microswitch SPDT
Terminals 1 - 4: Contacts close on rising pressure.
Terminals 1 - 2: Contacts open on rising pressure.

18D

HYDRAULIC PRESSURE SWITCHES (PISTON TYPE)
70 TO 6100 PSI

- » Adjustable setpoint
- » Gold-plated contacts
- » Vibration resistant to 15 g
- » Microswitch approved by UL and CSA

Technical Data

Medium

For Neutral, self lubricating fluids, e.g. hydraulic oil, lube oil, light fuel oil

Operation

Softseal Piston

Mounting position

Optional

Operating pressure

70 to 6100 psi

Ambient temperature

-4°F to 175°F (-20°C to + 80°C)

Viscosity

Up to 1000 mm²/s (±450 ssu).

Fluid temperature

-4°F to 175°F (-20°C to +80°C)

Repeatability

±3%

Electrical connection

DIN 43 650

Switching element

Microswitch

Degree of protection

IP 65

Weight

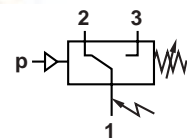
.2 lbs (0.2 kg)

Materials

Housing aluminum

Port: stainless steel

Seals: PTFE/Buna-N



DIN 43650

Model numbers - hydraulic applications

Port size	Type	Pressure range psi (bar)	Switching pressure Difference (Hysteresis)* psi (bar)				Model	
			Lower range	Upper range				
-	flange	70 – 1015	(5 – 70)	152	(10.5)	218	(15)	0883100000000000
1/16-20 UNF	female	70 – 1015	(5 – 70)	152	(10.5)	218	(15)	0882119000000000
1/4 NPT	female	70 – 1015	(5 – 70)	152	(10.5)	218	(15)	0882120000000000
-	flange	150 – 2320	(10 – 160)	160	(11)	247	(17)	0883200000000000
1/16-20 UNF	female	150 – 2320	(10 – 160)	160	(11)	247	(17)	0882219000000000
1/4 NPT	female	150 – 2320	(10 – 160)	160	(11)	247	(17)	0882220000000000
-	flange	360 – 3600	(25 – 250)	160	(11)	247	(17)	0883300000000000
1/16-20 UNF	female	360 – 3600	(25 – 250)	160	(11)	247	(17)	0882319000000000
1/4 NPT	female	360 – 3600	(25 – 250)	160	(11)	247	(17)	0882320000000000
-	flange	580 – 6100	(40 – 420)	247	(17)	508	(35)	0883400000000000
1/16-20 UNF	female	580 – 6100	(40 – 420)	247	(17)	508	(35)	0882419000000000
1/4 NPT	female	580 – 6100	(40 – 420)	247	(17)	508	(35)	0882420000000000

Note: Switches are supplied with DIN 43650 mating connector

* Switching pressure difference (hysteresis) is not adjustable. Maximum values are shown.



More info and CAD available online at:
norgren.com

18D

HYDRAULIC PRESSURE SWITCHES (PISTON TYPE) 70 TO 6100 PSI

Switching capacity

Commutator with gold plated contacts

Current Type	Load type *2)	U min [V]	Max. permanent current I _{max} [A] at U *1) (UL & CSA)					Contact life
			M 12x1 30 V	DIN EN 175301-803, form A				
			30 V	30 V	48 V	125 V	250 V	
AC	ohmic, inductive	6	0.1	0.1	0.1	0.1	0.1	≥ 2 x 10 ⁵ switching cycles
DC	ohmic, inductive	6	0.1	—	—	—	—	

Reference number: 20/min, Reference temperature: +20°C.

I_{min} = 1 mA at 24 VDC or 5 mA at 6 VDC

*1) Higher currents (5 A max) will cause a reduction of the durability of the micro-switch contacts. Furthermore additional measurements has to be taken to fulfil the EMV regulation 2004/108/EG by the manufacturer

*2) Spark quenching/overload protection will be necessary using inductive loads.

Recommended circuit

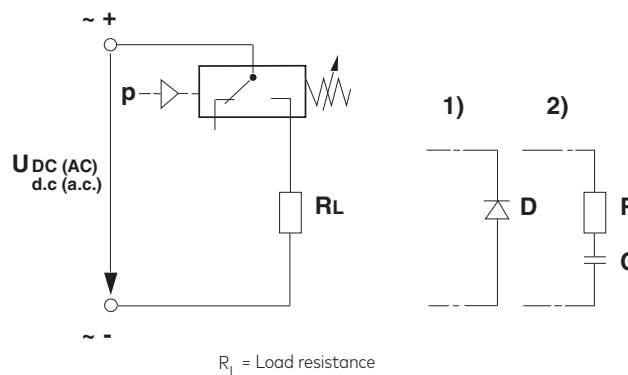
Spark quenching and EMV intrinsically safe

1. Quick diode (D) with $t_v \leq 200$ ns, parallel to inductive load.
2. RC link in parallel to load in parallel to switching contact.

Dimensioning principles:

$$R_L \text{ in } \Omega \approx 0.2 \times R_{\text{Load in } \Omega}$$

$$C \text{ in } [\mu\text{F}] \approx \text{Load in } [\text{A}]$$



Switching function

	<p>Plug DIN EN 175301-803, form A</p> <p>Microswitch SPDT</p> <p>Terminals 1 - 3: Contacts close on rising pressure.</p> <p>Terminals 1 - 2: Contacts open on rising pressure.</p>		<p>Switching function IEC 947-5-2, M12 x 1:</p> <p>Microswitch SPDT</p> <p>Terminals 1 - 4: Contacts close on rising pressure.</p> <p>Terminals 1 - 2: Contacts open on rising pressure.</p>
--	--	--	--

- » -14.5...232 psi with three pressure ranges
- » Compact, robust and light weight with G1/8 port
- » 2 switching outputs or 1 switching output (IO-Link configurable), 1 analog (4 ... 20mA)
- » Pressure display color change configurable at switching point (red/green)
- » High overpressure and vacuum resistance
- » Option for set up as a differential pressure sensor
- » UL-listed

Technical Data

Medium

Compressed air (filtered/lubricated/non-lubricated)

Pressure range:

-14.5 ... 14.5 psi (- 1 ... 1 bar)
-14.5 ... 145 psi (- 1 ... 10 bar)
0 ... 232 psi (0 ... 16 bar)

Pressure type:

Relative, and option for differential pressure

Switching pressure difference:

Programmable

Switching point:

Adjustable between 0 ... 100% of full scale (FS)

Reset point:

Adjustable between 0 ... 100% of full scale (FS) (smallest adjustable pressure switching difference between switching point and reset point \geq 0.5% of full scale (FS))

Display:

Alphanumeric display, 4-digit (red/green), programmable pressure units: bar, kPa, psi, inHg

Mounting position:

Optional

Total accuracy:

$\pm 0.5\%$ of full scale (FS) - without temperature sensitivity

Linearity:

$\pm 0.25\%$ + 1 display step size

Shock proof:

50 g, (11^{ms}), DIN EN 60068-2-27

Vibration proof:

20 g, 10 ... 2000 Hz, DIN EN 60068-2-6
Degree of protection acc.

DIN EN 60529:

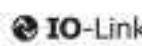
IP65

Weight:

0.19 lbs (0.087 kg)

Temperature sensitivity:

Zero-point: $\pm 0.2\%$ of maximum operating pressure range (FS) per 10 Kelvin
Pressure range: $\pm 0.2\%$ of maximum operating pressure range (FS) per 10 Kelvin at 32 ... +140°F (at 0 ... 60°C)



Ambient/Media temperature:

Ambient:
+32 ... +158°F (0 ... +70°C)
Media:
+32 ... +158°F (0 ... +70°C)
Air supply must be dry enough to avoid ice formation at temperature below +35°F (+2°C)

Materials:

Housing: PBT, FKM, Polyester
Wetted parts: Brass, FKM, Silicon (coated), PBT

Electrical parameters

Electrical connection:

M8

Power supply:

UB = 18 ... 32 VDC
reverse-polarity protected (according to EN 50178 SELV/PELV)

Permissible residual ripple:

10% (within UB)

Current consumption:

< 50 mA

Switching mode:

PNP

Output signal:

Switching signal;
IO-Link (configurable)

Contact rating:

I_{max} VDC = 100 mA

Switching time:

< 6 ms

Adjustable signal delay dS, dr[s]:

0; 0.002 ... 5

Service life:

Min. 50 million switching cycles

Switching logic:

NO/NC programmable

Operating mode:

Hysteresis and window mode separately selectable for each output

Electromagnetic compatibility:

EN 61000-6-2; EN 61000-6-3

Electrical connection M8 x 1 (2 x PNP)

	PIN-No.	Signal	Cable
	1	+ UB	brown
	2	Out 2 (PNP)	white
	3	0 Volt	blue
	4	Out 1 (PNP)	black

Electrical connection M8 x 1 (1 x PNP, 1 x analog)

	PIN-No.	Signal	Cable
	1	+ UB	brown
	2	Analog (4...20 mA)	white
	3	0 Volt	blue
	4	Out 1 (PNP)/ IO-Link	black




More info and CAD available online at:
norgren.com

54D

ELECTRONIC PRESSURE SENSOR

Technical data - Output Signal 2 x PNP

Symbol	Port size	Pressure range		Over pressure*1		Type of Pressure	Output Signal	Model
		(psi)	(bar)	(psi)	(bar)			
	G1/8	-14.5 ... 14.5	- 1 ... 1	20	290	Relative	2 x PNP	54D-V101G-DD0-AA
	G1/8	-14,5 ... 145	-1 ... 10	20	290	Relative	2 x PNP	54D-V110G-DD0-AA
	G1/8	0 ... 232	0 ... 16	20	290	Relative	2 x PNP	54D-P016G-DD0-AA



Technical data - Output Signal 1 x PNP (optional to be IO-Link configurable)/ 1 x analog

Symbol	Port size	Pressure range		Over pressure*1		Type of Pressure	Output Signal	Model
		(psi)	(bar)	(psi)	(bar)			
	G1/8	-14.5 ... 14.5	- 1 ... 1	290	20	Relative & Differential	1 x PNP/ analog	54D-V101G-DA1-AA
	G1/8	-14,5 ... 14,5	- 1 ... 1	290	20	Relative & Differential	1 x PNP/ analog	54D-V101G-DA1-AA
	G1/8	0 ... 232	0 ... 16	290	20	Relative & Differential	1 x PNP/ analog	54D-P016G-DA1-AA

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.

Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure

Accessories

<p>Connector M8 x 1</p> 		<p>DIN-Railclip</p> 
<p>0523449000000000 (1.5 m Cable,4-pin)</p>	<p>0523446000000000 (1,5 m Cable,4-pin, 90° angled.</p>	<p>54D-DINRAIL-CLIP</p>
<p>0523447000000000 (5 m Cable,4-pin)</p>	<p>0523448000000000 (5 m Cable,4-pin, 90° angled)</p>	

- » -14.5...8702 psi in different pressure ranges
- » Port size G1/4 or flange mounting with adapter
- » Two output options; 2x digital outputs or 1x digital and 1x Analog (both options IO-Link configurable)
- » Multicolor 4-digit display with configurable color change (red/green) at set point
- » Upper body can be rotated 345° relative to the process connection for easy alignment of the display
- » Suitable for harsh industrial and process control environments
- » High overpressure resistance
- » UL-listed

Technical Data

Medium

For neutral and aggressive, gaseous and liquid fluids

Pressure range:

-14.5 ... 14.5 psi (-1 ... 1 bar)
 -14.5 ... 145 psi (-1 ... 10 bar)
 0 ... 232 psi (0 ... 16 bar)
 0 ... 580 psi (0 ... 40 bar)
 0 ... 1450 psi (0 ... 100 bar)
 0 ... 2320 psi (0 ... 160 bar)
 0 ... 3626 psi (0 ... 250 bar)
 0 ... 5801 psi (0 ... 400 bar)
 0 ... 8702 psi (0 ... 600 bar)

Pressure type:

Relative pressure

Switching pressure difference:

Programmable

Weight:

0.57 lbs (0.26 kg)

Switching point:

Adjustable between
 0 ... 100% of full scale (FS)

Reset point:

Adjustable between
 0 ... 100% of full scale (FS)
 (smallest adjustable pressure switching difference between switching point and reset point \geq 0.5% of full scale (FS))

Display:

Alphanumeric display, 4-digit (red/green), programmable pressure units: bar, PSI, Mpa

Mounting position:

Optional

Total accuracy:

\pm 0.5% of full scale (FS) - without temperature sensitivity

Linearity:

\pm 0.25% + 1 display step size

Shock proof:

50 g, (11^{ms}), DIN EN 60068-2-27

Vibration proof:

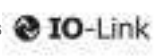
20 g, 10 ... 2000 Hz, DIN EN 60068-2-6

Degree of protection acc.

DIN EN 60529:
 IP67 (with plug mounted)

Temperature sensitivity:

Zero-point: \pm 0,2% of max operating pressure range (FS) per 10 Kelvin
 Pressure range: \pm 0,2% of max operating pressure range (FS) per 10 Kelvin



Ambient/Media temperature:

Ambient:

-13 ... +176°F (-25 ... +80°C)

Media:

-13 ... +176°F (-25 ... +80°C)

Air supply must be dry enough to avoid ice formation at temperature below +35°F (+2°C)

Materials:

Housing:

Stainless steel (1.4404 / 316L);

PBT+PC-GF30; PBT-GF20; PC

Wetted parts: Stainless steel

(1.4404 / 316L); Al2O3 (ceramics); FKM

Electrical parameters

Electrical connection:

M12 x 1 (contacts gold plated)

Power supply:

UB = 18 ... 30 VDC
 reverse-polarity protected
 (according to EN 50178 SELV/PELV)

Switching time:

< 3 ms

Permissible residual ripple:

10% (within UB)
 Current consumption: < 35 mA

Switching mode:

PNP/NPN

Output signal:

Switching signal; IO-Link (configurable)

Contact rating:

I_{max}
 150 mA / -13...+176°F
 200 mA / -13...+140°F
 250 mA / -13...+104°F

Signal delay:

On/Off 0 ... 50 s

Service life:

Min. 100 million switching cycles

Switching logic:

NO/NC programmable

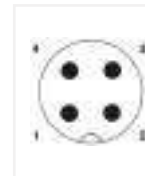
Operating mode:

Hysteresis and window mode separately selectable for each output

Electromagnetic compatibility:

EN 61000-6-2; EN 61000-6-3

Electrical connection M12 x 1 (2 x PNP)



PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2 (PNP)	white
3	0 Volt	blue
4	Out 1 (PNP)/ IO-Link	black

Electrical connection M12 x 1 (1 x PNP, 1 x analog)



PIN-No.	Signal	Cable
1	+ UB	brown
2	Analog 4 ... 20 mA/0...10V	white
3	0 Volt	blue
4	Out 1 (PNP)/ IO-Link	black



More info and CAD available online at:
norgren.com

34D

PNEUMATIC/HYDRAULIC/ALLFLUID-ELECTRONIC PRESSURE SENSOR

Output Signal 2 x PNP (1 x IO-Link, configurable)

Symbol	Port size	Pressure range (psi)	Pressure range (bar)	Over pressure*1 (psi)	Over pressure (bar)	Output Signal	Model
	G1/4	-14.5 ... 14.5	-1 ... 1	145	10	2 x PNP	34D-V101G-DD1-AA
	G1/4	-14.5 ... 145	-1 ... 10	1090	75	2 x PNP	34D-V110G-DD1-AA
	G1/4	0 ... 232	0 ... 16	1225	85	2 x PNP	34D-P016G-DD1-AA
	G1/4	0 ... 580	0 ... 40	2900	200	2 x PNP	34D-P040G-DD1-AA
	G1/4	0 ... 1450	0 ... 100	4350	300	2 x PNP	34D-P100G-DD1-AA
	G1/4	0 ... 2320	0 ... 160	5075	350	2 x PNP	34D-P160G-DD1-AA
	G1/4	0 ... 3625	0 ... 250	7250	500	2 x PNP	34D-P250G-DD1-AA
	G1/4	0 ... 5800	0 ... 400	11580	800	2 x PNP	34D-P400G-DD1-AA
	G1/4	0 ... 8700	0 ... 600	11580	800	2 x PNP	34D-P600G-DD1-AA

Output Signal 1 x PNP (1 x IO-Link, configurable), 1 x Analog

Symbol	Port size	Pressure range (psi)	Pressure range (bar)	Over pressure*1 (psi)	Over pressure (bar)	Output Signal	Model
	G1/4	-14.5 ... 14.5	-1 ... 1	145	10	1 x PNP / 1 x Analog	34D-V101G-DA1-AA
	G1/4	-14.5 ... 145	-1 ... 10	1090	75	1 x PNP / 1 x Analog	34D-V110G-DA1-AA
	G1/4	0 ... 232	0 ... 16	1225	85	1 x PNP / 1 x Analog	34D-P016G-DA1-AA
	G1/4	0 ... 580	0 ... 40	2900	200	1 x PNP / 1 x Analog	34D-P040G-DA1-AA
	G1/4	0 ... 1450	0 ... 100	4350	300	1 x PNP / 1 x Analog	34D-P100G-DA1-AA
	G1/4	0 ... 2320	0 ... 160	5075	350	1 x PNP / 1 x Analog	34D-P160G-DA1-AA
	G1/4	0 ... 3625	0 ... 250	7250	500	1 x PNP / 1 x Analog	34D-P250G-DA1-AA
	G1/4	0 ... 5800	0 ... 400	11580	800	1 x PNP / 1 x Analog	34D-P400G-DA1-AA
	G1/4	0 ... 8700	0 ... 600	11580	800	1 x PNP / 1 x Analog	34D-P600G-DA1-AA

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.

Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure

Mounting accessories

Flange adapter	Wall mounting kit	Mounting clamp	Label tag holder	Cover protection	Throttle screw	Adapter G1/4 - G1/4	Adapter G1/4 - 1/4 NPT
34D-FLANGE-ADPT	34D-BRKT-ANGLED	34D-BRKT-BODY	34D-LABEL-TAG	34D-COVER-PROTEC	34D-DAMPING-SCRW	34D-14G-G-ADPT	34D-14G-NPT-ADPT

Accessories

Pre-wired M12 Cable, straight (6ft cable, 4-pin)	Pre-wired M12 Cable, 90° angle (6ft cable, 4-pin)
SCF12060	SCF12160

NC SERIES

IO-LINK MASTERS, I/O MODULES AND ACCESSORIES

- » Industrial Ethernet connectivity products
- » IO-Link Master provide a gateway to PROFINET and EtherNet/IP
- » Standard building blocks make system design modular and simple
- » Installation time is reduced as all cables are premade, plug and socket, making it all plug and play
- » IO-Link enabled Valve Manifolds can be connected to a master port on a single standard cable
- » Electrical design is simplified as the I/O Modules can be configured depending on the input and output requirement.
- » Diagnostics can pinpoint faults in the whole network quickly and precisely

Technical Data

Operating voltage (V):
20...30 DC; (US; to SELV/PELV)

Current consumption (mA):
300...3900; (US)

Protection class: III

Additional voltage supply (V):
20...30 DC; (UA)

Max. current load total (A): 8

Current rating per port (A):
2; (adjustable: 0...2;
Factory setting: 2)

Total number of inputs and outputs:
24; (configurable)

Number of digital inputs:
12; (IO-Link Port Class A: 4 x 2)
(IO-Link Port Class B: 4 x 1)

Number of digital outputs: 12

Ethernet transmission standard:
10Base-T; 100Base-TX

Ethernet transmission rate:
10; 100

IO-Link Master transmission type:
COM 1/COM 2/COM 3

IO-Link revision: 1.1

IO-Link Master number of ports class A: 4

IO-Link Master number of ports class B: 4

Ambient temperature:
-13 ... 140°F (-25...60°C)

Storage temperature:
-13 ... 185°F (25...85°C)

Max. relative air humidity: 90%

Protection:
IP 65; IP 66; IP 67

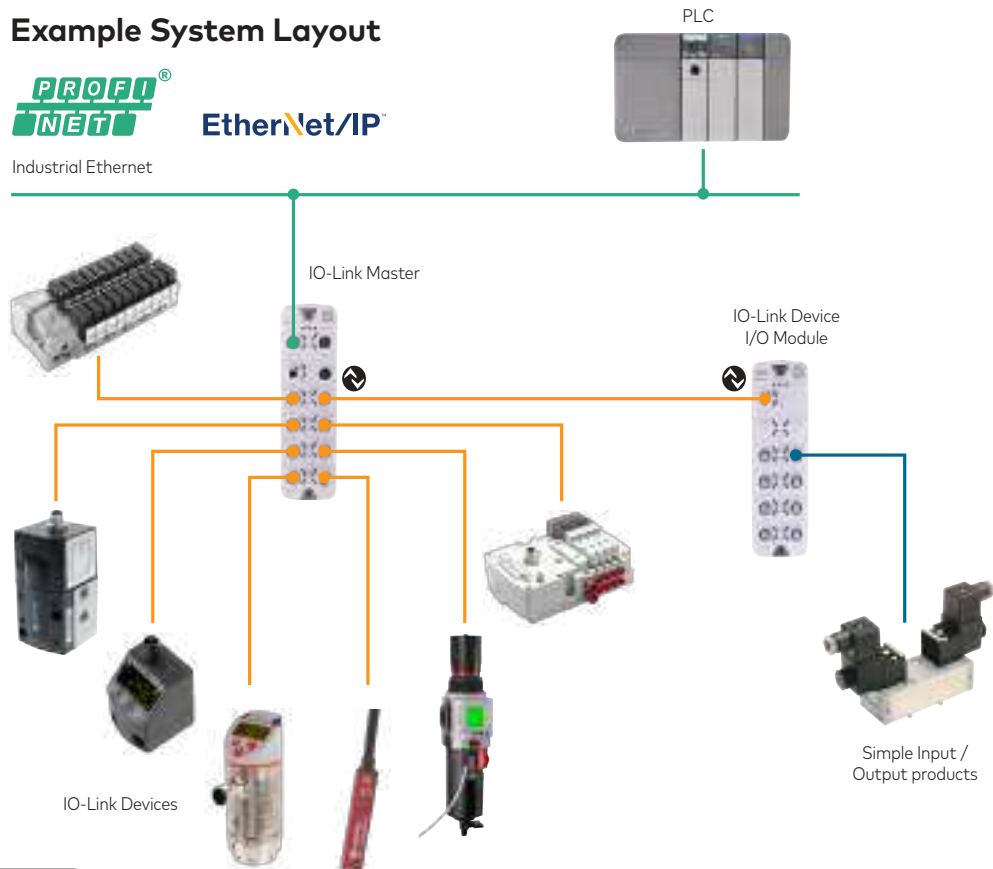
Materials:
Housing: PA
Socket: brass nickel plated



PROFINET EtherNet/IP

IO-Link

Example System Layout




More info and CAD available online at:
norgren.com


NC SERIES

IO-LINK MASTERS, I/O MODULES AND ACCESSORIES


IO-Link Masters/I/O Modules/Accessories

	Product Description		Model
	PROFINET IO-Link Master	Port Class A (4x) + Port Class B (4x)	NC-MP-4A4B-12DLA
	EtherNet/IP IO-Link Master	Port Class A (4x) + Port Class B (4x)	NC-ME-4A4B-12DLA
	I/O Module Standard	8 Port without Auxillary Power 16 x I/O Configurable	NC-HB-8A5F-12A0A
	I/O Module with Auxillary Power	8 Port with Auxillary Power 16 x I/O Configurable	NC-HA-8A5F-12AAA
	Y-Splitter 2 x M12 - 1 x M12	2 x I/O into one port on I/O Module	NC-TS-124F-125M0
	Y-Splitter 2 x M8 - 1 x M12	2 x I/O into one port on I/O Module	NC-TS-083F-124M0
	Protective Cap M12	Cover for unused ports	NC-PC-1200-00000
	Protective Cap M8	Cover for unused ports	NC-PC-0800-00000

Industrial Ethernet - Cable and Connectors

	Product Description		Compatible product:	Model
	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 0,5 meter long	IO-Link Master	NC-124MS-1244SGA
	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 2 meter long		NC-124MS-1244SG2
	Industrial Ethernet cable 4 Pin D-coded	M12 - M12 x 5 meter long		NC-124MS-1244SG5
	Industrial Ethernet cable 4 Pin D-coded	M12 - Open End x 2 meter long		NC-124MS-00000G2
	Industrial Ethernet cable 4 Pin D-coded	M12 - Open End x 5 meter long		NC-124MS-00000G5
	Industrial Ethernet M12 4 Pin D-coded	Wireable connector		NC-124MS-WIRE0D0
	Industrial Ethernet RJ45	RJ45 wireable connector		NC-RJ450-0000000

Power Cables

	Product Description		Compatible product:	Model
	Power Cable 5 Pin L - coded	M12 - M12 x 2 metre long	IO-Link Master	NC-125FS-125MSL2
	Power Cable 5 Pin L - coded	M12 - M12 x 5 metre long		NC-125FS-125MSL5
	Power Cable 5 Pin L - coded	M12 - Open End x 2 metre long		NC-125FS-00000L2
	Power Cable 5 Pin L - coded	M12 - Open End x 5 metre long		NC-125FS-00000L5
	Power Socket 4 Pin L-coded	M12 - Wireable		NC-125FS-WIRE0L0
	Power Plug 5 Pin L - coded	M12 - Wireable		NC-125FM-WIRE0L0
	Cable 5 Pin A-coded	M12 - Open End x 5 metre long	I/O Module with Auxillary Power	NC-125FS-00000-5

NC SERIES

IO-LINK MASTERS, I/O MODULES AND ACCESSORIES

Connector Cables and Plugs

	Product Description	Compatible product:	Model
	Cable 3 Pin A-coded M8 - M8 x 0.6 metre long	Actuator sensors M/50/LSU/CP*, M/50/EAP/CP*	NC-083FS-083MS-A
	Cable 3 Pin A-coded M8 - M8 x 1 metre long		NC-083FS-083MS-1
	Cable 3 Pin A-coded M8 - M8 x 2 metre long		NC-083FS-083MS-2
	Cable 3 Pin A-coded M8 - M8 x 5 metre long		NC-083FS-083MS-5
	Cable 3 Pin A-coded M8 - Open End x 5 metre long		NC-083FS-00000-5
	Cable 4 Pin A-coded M8 - M12 x 0.6 metre long	Pressure sensors 54D*	NC-084FS-124MS-A
	Cable 4 Pin A-coded M8 - M12 x 1 metre long		NC-084FS-124MS-1
	Cable 4 Pin A-coded M8 - M12 x 2 metre long		NC-084FS-124MS-2
	Cable 4 Pin A-coded M8 - M12 x 5 metre long		NC-084FS-124MS-5
	Cable 4 Pin A-coded M8 - Open End x 5 metre long		NC-084FS-00000-5
	Cable 5 Pin A-coded M12 - M12 x 0.6 metre long	Pressure sensors 34D*	NC-125FS-125MS-A
	Cable 5 Pin A-coded M12 - M12 x 1 metre long		NC-125FS-125MS-1
	Cable 5 Pin A-coded M12 - M12 x 2 metre long		NC-125FS-125MS-2
	Cable 5 Pin A-coded M12 - M12 x 5 metre long		NC-125FS-125MS-5
	Cable 5 Pin A-coded M12 - Open End x 5 metre long		NC-125FS-00000-5
	Plug 3 Pin A-coded M8 - Wireable male		NC-083MS-WIRE0A0
	Plug 4 Pin A-coded M8 - Wireable male		NC-084MS-WIRE0A0
	Plug 4 Pin A-coded M12 - Wireable male		NC-124MS-WIRE0A0
Plug 5 Pin A-coded M12 - Wireable male		NC-125MS-WIRE0A0	

* = part number series

Valve Connectors

	Product Description	Compatible product:	Model
	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 0.6 metre long	Example - Solenoid valve series SXE with 23N, 33N coil	NC-DINAA-123MS-A
	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 1 metre long		NC-DINAA-123MS-1
	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 2 metre long		NC-DINAA-123MS-2
	DIN form A Solenoid Connector with LED - 3 Pin A-coded M12 x 5 metre long		NC-DINAA-123MS-5
	DIN form B Industrial Standard Solenoid Connector-with LED - 3 Pin A-coded M12 x 0.6 metre long		NC-DINIA-123MS-A
	DIN form B Industrial Standard Solenoid Connector-with LED - 3 Pin A-coded M12 x 1 metre long	Example - solenoid valves series V60-63 and SXE series with 13J coil	NC-DINIA-123MS-1
	DIN form B Industrial Standard Solenoid Connector-with LED - 3 Pin A-coded M12 x 2 metre long		NC-DINIA-123MS-2
	DIN form B Industrial Standard Solenoid Connector-with LED - 3 Pin A-coded M12 x 5 metre long		NC-DINIA-123MS-5
	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 0.6 metre long		NC-DINCA-123MS-A
	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 1 metre long	Example -solenoid valves series V40/V41, V44/V45 with C313A coil	NC-DINCA-123MS-1
	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 2 metre long		NC-DINCA-123MS-2
	DIN form C Solenoid Connector with LED - 3 Pin A-coded M12 x 5 metre long		NC-DINCA-123MS-5

Nut/Thread Sensors



Nut and thread detection systems:

- > Reduce costly product rejects
- > Detect missing nuts at the weld station
- > Verify thread presence or quality
- > Are sensitive
- > Easy to calibrate
- > Affordable

Norgren Automation Solutions is a leader in engineered solutions for the automotive and automation industry.

In car assemblies, an automatic system welds nuts to sheet metal so auto body parts can be bolted together later. If a nut is missing or not aligned with the hole, the part may have to be scrapped. But these nuts are often hidden from view, making visual inspection slow and costly. Existing hidden part sensors could measure thickness, (indicating whether a nut was present) but they were expensive and difficult to configure into a workable package. Automotive manufacturers needed a sensor that was:

- > Sensitive
- > Easy to calibrate
- > Affordable

NAS met the customer challenge

Manufacturers now have a probe that is:

Precise

The sensor easily detects whether a nut is present or absent. Furthermore, it can be calibrated to detect thread quality using a simple hand adjustment and an LED indicator.

Agile

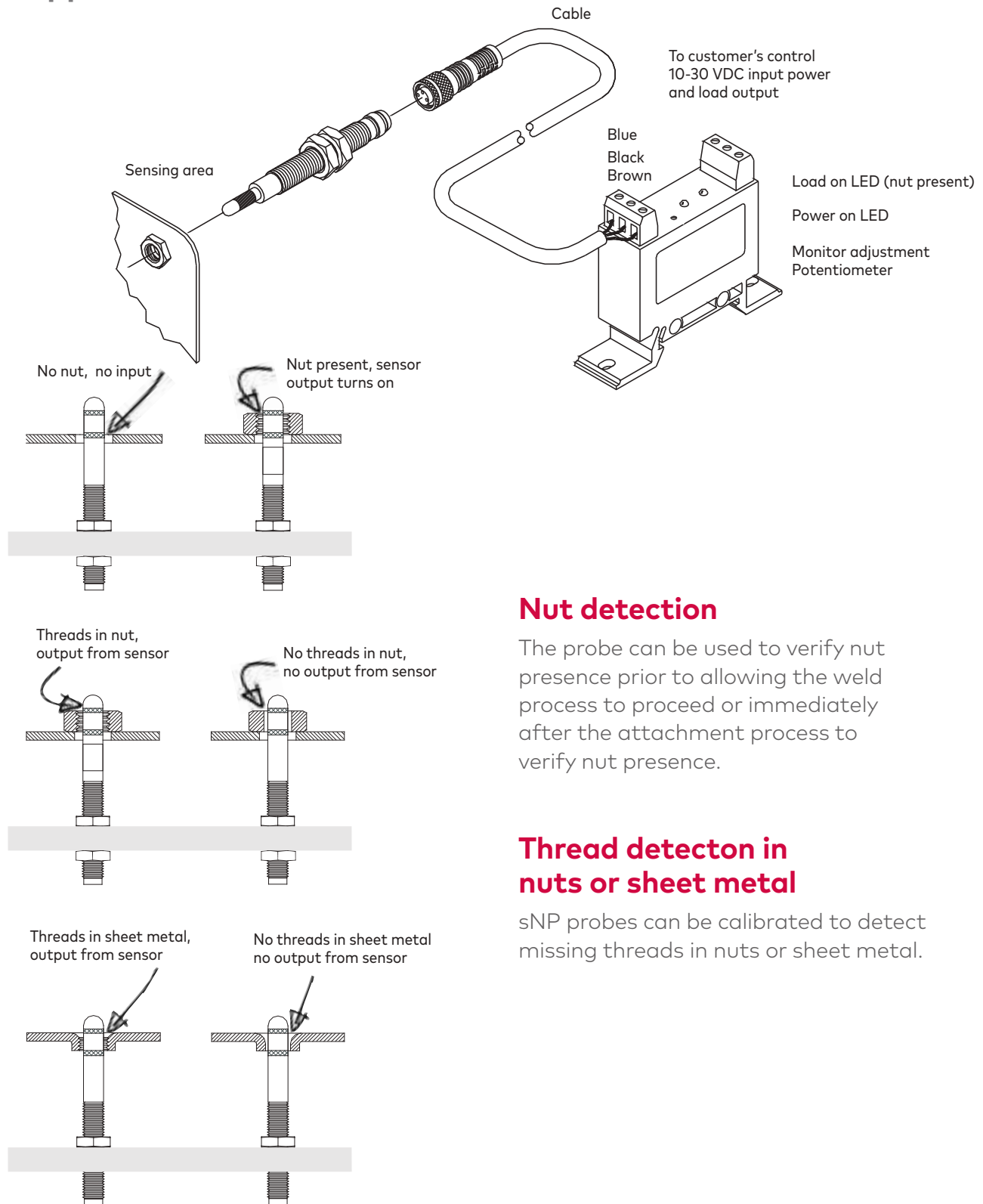
An optional spring mount allows the probe to retract without damage if a hole is missing. The probe can also offset up to five degrees when a hole and nut are misaligned.

Cost-Effective

Not only does the new radial sensor technology make the probe affordable, but manufacturers realize significant savings by eliminating manual inspections and avoiding scrap of costly car assemblies.

Nut and thread detection

application



Nut detection

The probe can be used to verify nut presence prior to allowing the weld process to proceed or immediately after the attachment process to verify nut presence.

Thread detection in nuts or sheet metal

sNP probes can be calibrated to detect missing threads in nuts or sheet metal.

FAST FIND GUIDE

Nut/Thread Sensors



Toughened Nut/Thread Sensors



Monitors for Nut/Thread Sensors



Nut/Thread Sensor Spring Mount



Cables and Connections



NUT/THREAD SENSOR

SNP50608

- » Abrasion and impact resistant.
- » For light duty applications with sensor tip radial loads up to 30 lbs.
- » Exceptional for thread detection and thread quality detection.
- » Immune to weld fields and resistant to weld slag.
- » Minimum nut thickness is; 4.0mm (.16") for M5 nut
5.0mm (.20") for M6 nut
6.5mm (.26") for M8 nut
- » Maximum blank thickness is 1.6mm (0.06")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M5 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNP50608	SMR36005 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.029 lbs / 13 gm
	SMR37005 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

Sensor	Monitor	Cable	Spring mount	Weight
SNP50608	SMR36006 (NPN)	SCE13000 2m (6ft)	SAB30403	0.029 lbs / 13 gm
	SMR37006 (PNP)	SCE13001 2m (6ft) (Angled)		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

Sensor	Monitor	Cable	Spring mount	Weight
SNP50608	SMR36008 (NPN)	SCE13000 2m (6ft)	SAB30403	0.029 lbs / 13 gm
	SMR37008 (PNP)	SCE13001 2m (6ft) (Angled)		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

NUT/THREAD SENSOR

SNP01012

- » Abrasion and impact resistant.
- » For light duty applications with sensor tip radial loads up to 35 lbs.
- » Exceptional for thread detection and thread quality detection.
- » Immune to weld fields and resistant to weld slag.
- » Minimum nut thickness is: 8.0mm (.31") for M10 nut 10.0mm (.39") for M12 nut
- » Maximum blank thickness is 2.5mm (.10")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M10 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNP01012	SMR36010 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.037 lbs/ 17 gm
	SMR37010 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

M12 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNP01012	SMR36012 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.037 lbs/ 17 gm
	SMR37012 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

TOUGHENED NUT/THREAD SENSOR

SNS04

- » For heavy duty applications with sensor tip radial loads up to 32 lbs.
- » For use in weld applications
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence
- » Minimum nut thickness is 4.0 mm (.16")
- » Maximum blank thickness is 1.6mm (.06")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M4 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNS04	SMH36004 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.019 lbs / 9 gm
	SMH37004 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

NUT/THREAD SENSOR

SNS05

- » For heavy duty applications with sensor tip radial loads up to 38 lbs.
- » For use in weld applications
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence
- » Minimum nut thickness is 4.0 mm (.16")
- » Maximum blank thickness is 1.6mm (.06")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M5 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNS05	SMH36005 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.019 lbs / 9 gm
	SMH37005 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

TOUGHENED NUT/THREAD SENSOR

SNS06

- » For Heavy Duty Applications with sensor tip radial loads up to 50 lbs.
- » For use in weld applications.
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence.
- » Can be used as a locating pin.
- » Minimum nut thickness is 5.0mm (.20") for M6 nut
- » Maximum blank thickness is 1.6mm (.06")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M6 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNS06	SMH36006 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.037 lbs / 17 gm
	SMH37006 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

TOUGHENED NUT/THREAD SENSOR

SNS08

- » For heavy duty applications with sensor tip radial loads up to 38 lbs.
- » For use in weld applications
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence
- » Minimum nut thickness is 6.5mm (.26") for M8 nut
- » Maximum blank thickness is 1.6mm (.06")

Technical Data

Sensor connector:
3-pin (male) 8mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous



M8 Nut/Thread Detector System

Sensor	Monitor	Cable	Spring mount	Weight
SNS08	SMH36008 (NPN)	SCE13000 6 ft (2m) Straight	SAB30403	0.033 lbs / 15 gm
	SMH37008 (PNP)	SCE13005 16 ft (5m) Straight		
		SCE13001 6 ft (2m) Angled		
		SCE13005RA 16 ft (5m) Angled		

TOUGHENED NUT/THREAD SENSOR SNS10

- » For heavy duty applications with sensor tip radial loads up to 40 lbs.
- » For use in weld applications
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence
- » Minimum nut thickness is 8.0 mm (.31")
- » Maximum blank thickness is 2.5mm (.10")

Technical Data

Sensor connector:
4-pin (male) 12mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous

→ Online at
norgren.com



M10 Nut/Thread Detector System

Sensor	Monitor	Cable	Weight
SNS10	SMH36010 (NPN)	SCF12060 6 ft (2M) Straight	0.082 lbs / 37 gm
	SMH37010 (PNP)	SCF12160 6ft (2M) Angled	

TOUGHENED NUT/THREAD SENSOR SNS12

- » For heavy duty applications with sensor tip radial loads up to 60 lbs.
- » For use in weld applications
- » Immune to weld fields and resistant to weld slag.
- » Can be used to detect thread presence
- » Minimum nut thickness is 10.0 mm (.39")
- » Maximum blank thickness is 2.5mm (.10")

Technical Data

Sensor connector:
4-pin (male) 12mm (pico) connector

Operating temperature range:
32°F to 212°F (0°C to 100°C)

Target material:
Ferrous/Non-Ferrous

→ Online at
norgren.com

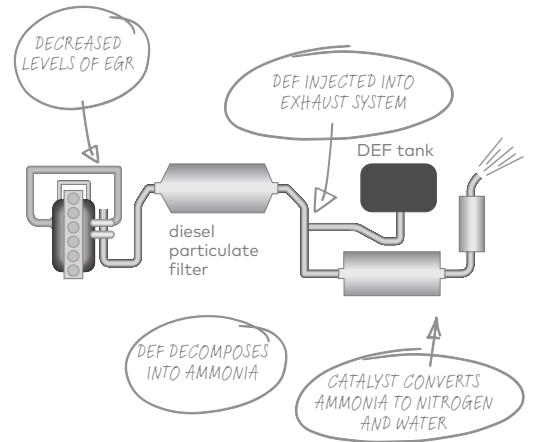


M12 Nut/Thread Detector System

Sensor	Monitor	Cable	Weight
SNS12	SMH36012 (NPN)	SCF12060 6 ft (2M) Straight	0.082 lbs / 37 gm
	SMH37012 (PNP)	SCF12160 6ft (2M) Angled	

Tank Heating

DEF (Diesel Exhaust Fluid)



Customer Application

Coolant circuit shut-off valve for medium and heavy duty truck DEF Tank Heating Circuits.

Norgren CV solution

Valve regulating the flow of coolant to the DEF/Urea holding tank for temperature regulation in cold ambient temperatures.

- > Suitable for all engine applications, either on or off highway
- > Applicable for all EPA 2010 and Euro VI SCR systems
- > Reliably used in the field since 2004
- > Fully interchangeable fittings
- > Electrical connector orientation can be modified to meet customer requirements
- > Damped closing – to reduce strain on the components within the cooling system

Customer benefit

- > Production proven design for medium and heavy duty commercial vehicles and off road vehicles
- > Damped closing valve to improve cooling system component life
- > High flow rate for fast heat up of DEF



MONITOR FOR NUT/THREAD SENSOR

SMR3XXXX

- » Abrasion and impact resistant.
- » LED for on/off status of sensor.
- » Interface directly to programmable controllers

➔ Online at norgren.com

Technical Data

Sensor connector:

2 X 3-pin terminal strips

Supply Voltage Range:

10VDC to 30 VDC

Maximum Load Current:

180mA

Operating temperature range:

32°F to 140°F (0°C to +60°C)

Response time:

25ms turn-on, 25ms turn-off

Indicator lights:

GREEN: DC power connect
AMBER: Target detected

Target material:

Ferrous/Non-Ferrous

Short circuit protection:

Yes

Overload protection:

Yes

Weight:

.091 lbs / 41 gms



System

System	Sensor	Monitor	Switch type	Cable
M5 Nut Detector	SNP50608	SMR36005 (NPN) SMR37005 (PNP)	Current sinking Current sourcing	
M6 Nut Detector	SNP50608	SMR36006 (NPN) SMR37006 (PNP)	Current sinking Current sourcing	SCE13000 6 ft (2m) Straight SCE13005 16 ft (5m) Straight
M8 Nut Detector	SNP50608	SMR36008 (NPN) SMR37008 (PNP)	Current sinking Current sourcing	SCE13001 6 ft (2m) Angled SCE13005RA 16 ft (5m) Angled
M10 Nut Detector	SNP01012	SMR36010 (NPN) SMR37010 (PNP)	Current sinking Current sourcing	
M12 Nut Detector	SNP01012	SMR36012 (NPN) SMR37012 (PNP)	Current sinking Current sourcing	

MONITOR FOR TOUGHENED NUT/THREAD SENSOR

SMH3XXXX

- » Abrasion and impact resistant.
- » LED for on/off status of sensor.
- » Interface directly to programmable controllers

➔ Online at norgren.com

Technical Data

Power/sensor connector:

2 X 3-pin terminal connector

Supply voltage range:

10VDC to 30 VDC

Maximum load current:

180mA

Operating temperature range:

32°F to 140°F (0°C to +60°C)

Response time:

25ms turn-on, 25ms turn-off

Indicator lights:

GREEN: DC power connect
AMBER: Target detected

Target material:

Ferrous/Non-Ferrous

Short circuit protection:

Yes

Overload protection:

Yes

Weight:

.091 lbs / 41 gms



System

System	Sensor	Monitor	Switch type	Cable
M4 Toughened Nut Detector	SNS04	SMH36004 (NPN) SMH37004 (PNP)	Current sinking Current sourcing	
M5 Toughened Nut Detector	SNS05	SMH36005 (NPN) SMH37005 (PNP)	Current sinking Current sourcing	SCE13000 6 ft (2m) Straight SCE13005 16 ft (5m) Straight
M6 Toughened Nut Detector	SNS06	SMH36006 (NPN) SMH37006 (PNP)	Current sinking Current sourcing	SCE13001 6 ft (2m) Angled SCE13005RA 16 ft (5m) Angled
M8 Toughened Nut Detector	SNS08	SMH36008 (NPN) SMH37008 (PNP)	Current sinking Current sourcing	
M10 Toughened Nut Detector	SNS10	SMH36010 (NPN) SMH37010 (PNP)	Current sinking Current sourcing	SCF12060 6 ft (2M) Straight SCF12160 6ft (2M) Angled
M12 Toughened Nut Detector	SNS12	SMH36012 (NPN) SMH37012 (PNP)	Current sinking Current sourcing	

NUT/THREAD SENSOR SPRING MOUNT

SAB30403

- » For mounting the Nut Sensor.
- » Allows sensor probe to retract when nut is out of place.
- » Allows sensor tip to offset up to 5° off centerline of spring mount to locate misaligned holes.

Technical Data

Weight:

53 grams

NOTE: Nut Sensor Spring Mounts are compatible with all Nut Sensors except the SNS10 and SNS12.



→ Online at norgren.com

Nut/Thread Sensor Spring Mount

Sensor	Weight
SAB30403	1.87 oz. / 53 gm

CABLES AND CONNECTORS


- » Pre-wired M8 & M12 Cables

Technical Data

Operating temperature:

32°F to 140°F (0°C to 60°C)

Model

Part number	Pin connection	Connector shape	Cable length
			
SCE13000	3 pin M8	Straight	6 ft (2m) long
SCE13005	3 pin M8	Straight	16 ft (5m) long
			
SCE13001	3 pin M8	Angled	6 ft (2m) long
SCE13005RA	3 pin M8	Angled	16 ft (5m) long
			
SCF12060	4 pin M12	Straight	6 ft (2m) long
			
SCF12160	4 pin M12	Angled	6 ft (2m) long





NORGREN®

Case Study

Detector for nuts and threads reduces scrap

Problem

In car assemblies, an automatic system welds nuts to sheet metal so auto body parts can be bolted together later. If a nut is missing or not aligned with the hole, the part may have to be scrapped. But these nuts are often hidden from view, making visual inspection slow and costly. Existing hidden part sensors could measure thickness, (indicating whether a nut was present) but they were expensive and difficult to configure into a workable package. Automotive manufacturers needed an affordable sensor that was sensitive enough to detect the presence of a nut and easy to calibrate to detect thread quality.

Solution

Using their expertise in inductive proximity sensing, where a probe emits an oscillating signal, automation experts at Norgren Engineering developed the first-ever radial probe sensor. The probe is inserted through the hole in the sheet metal and sends a signal back to a monitor. The operating frequency of the signal indicates whether the nut is present or absent. The sensor can be calibrated to detect thread quality using a simple hand adjustment and an LED indicator. An optional spring mount allows the probe to retract without damage if a hole is missing. Radial sensor technology makes the probe affordable, and manufacturers realize significant savings by eliminating manual inspections and avoiding scrap of costly car assemblies.



Find out more
www.norgren.com



IMI

Breakthrough
Engineering

Air Preparation Products




























In this section you will find a whole family of air preparation products—from miniature to large capacity units, tried and tested favorites, to Norgren's latest innovations like Excelon® Plus. We list units for general purpose use and more specialized applications— precision regulators, stainless steel units, valves for safety critical situations, etc. Use the fast find guide to identify the right product to get the job done quickly. PDF datasheets are available online via our website or call the team for rapid quotation and delivery.



FAST FIND GUIDE

Please note: These products represent only part of the Norgren air preparation range. If you can't see the option you require please contact us.

Excelon® Plus – Modular System

<p>General purpose filter/regulator combination units BL84 3/8" ... 3/4"</p>  <p>Page 166</p>	<p>General purpose filter/regulator B84G 3/8" ... 3/4"</p>  <p>Page 167</p>	<p>General purpose filter/regulator with IEPS B84G 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 168</p>	<p>General purpose filter F84G 3/8" ... 3/4"</p>  <p>Page 169</p>	<p>Oil removal filters F84C 3/8" ... 3/4"</p>  <p>Page 170</p>	<p>Oil vapor removal filters F84V 3/8" ... 3/4"</p>  <p>Page 171</p>
<p>Pressure regulators R84G 3/8" ... 3/4"</p>  <p>Page 172</p>	<p>Micro-Fog and Oil-Fog Lubricators L84M, L84C 3/8" ... 3/4"</p>  <p>Page 173</p>	<p>3/2 shut-off valve T84T 3/8" ... 3/4"</p>  <p>Page 174</p>	<p>3/2 Soft Start/Dump Valve P84F 3/8" ... 3/4"</p>  <p>Page 175</p>	<p>Filter/regulator-lubricator combination units HBL84G 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 176</p>	<p>Filter/regulator for extreme temperature applications HB84G 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 177</p>
<p>General purpose filter for extreme temperature applications HF84G 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 178</p>	<p>Oil removal filter for extreme temperature applications HF84C 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 179</p>	<p>Oil vapor removal filter for extreme temperature applications HF84V 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 180</p>	<p>Pressure regulator for extreme temperature applications HR84G 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 181</p>	<p>Lubricators for extreme temperature applications HL84M, HL84C 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 182</p>	<p>3/2 shut-off valve for extreme temperature applications HT84T 3/8" ... 3/4"</p> <p><i>NEW</i></p>  <p>Page 183</p>
<p>General purpose filter/regulator combination units BL82 1/4" ... 3/8"</p>  <p>Page 184</p>	<p>General purpose filter/regulator B82G 1/4" ... 3/8"</p>  <p>Page 185</p>	<p>General purpose filter/regulator F82G 1/4" ... 3/8"</p>  <p>Page 186</p>	<p>Oil removal filters F82C 1/4" ... 3/8"</p>  <p>Page 187</p>	<p>Oil vapor removal filters F82V 1/4" ... 3/8"</p>  <p>Page 188</p>	<p>Pressure Regulators R82G 1/4" ... 3/8"</p>  <p>Page 189</p>
<p>Micro-Fog and Oil-Fog Lubricators L82M, L82C 1/4" ... 3/8"</p>  <p>Page 190</p>	<p>3/2 shut-off valve T82T 1/4" ... 3/8"</p>  <p>Page 191</p>	<p>3/2 Soft Start/Dump Valve P82F 1/4" ... 3/8"</p>  <p>Page 192</p>	<p>Excelon® Plus Modular System 3/8" High Flow, 1/2", & 3/4" Accessories 1/4" & 3/8" Compact Accessories</p> <p>Pages 193-196</p>		

Miniature Series, General Purpose

<p>Filter/regulators-lubricators PTH 1/8" and 1/4"</p>  <p>Page 197</p>	<p>General purpose filter F07, F39 1/8", 1/4"</p>  <p>Page 198</p>	<p>Lubricators L07 1/8", 1/4"</p>  <p>Page 199</p>	<p>Regulators R07, R46 1/8", 1/4"</p>  <p>Page 200</p>	<p>Filter/regulator B07 1/8", 1/4"</p>  <p>Page 201</p>	<p>Pressure relief valve - diaphragm V07 1/8", 1/4"</p>  <p>Page 202</p>
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FAST FIND GUIDE

Please note: These products represent only part of the Norgren air preparation range. If you can't see the option you require please contact us.





Mainline Series Units

<p>P8A Combination units 17 Series 3/4" to 1-1/2"</p>  <p>Page 203</p>	<p>General purpose filters B17 3/4" to 1-1/2"</p>  <p>Page 204</p>	<p>General purpose filters F17 3/4" to 1-1/2"</p>  <p>Page 205</p>	<p>Oil removal (Coalescing) filter F46 3/4" and 1-1/4"</p>  <p>Page 206</p>	<p>Regulators R17 3/4" to 1-1/2"</p>  <p>Page 207</p>	<p>Lubricators L17 3/4" to 1-1/2"</p>  <p>Page 208</p>
<p>General purpose filters F18, F47 1-1/2" and 2"</p>  <p>Page 209</p>	<p>Pilot operated regulators R18 1-1/2" and 2"</p>  <p>Page 210</p>				

Special Purpose

<p>'Micro Trol' special purpose pressure regulators R24 1/4" to 1-1/4"</p>  <p>Page 211</p>	<p>Precision regulators 11-002 1/4" to 1/2"</p>  <p>Page 212</p>	<p>Pilot operated pressure regulator 11-008, 11-042 1/2" to 1-1/4"</p>  <p>Page 213</p>	<p>Conventional and Feedback pilot regulators R40 1/4"</p>  <p>Page 214</p>	<p>Pilot operated regulators 11-104 1/4"</p>  <p>Page 214</p>	<p>Precision pressure regulators 11-018 1/4"</p>  <p>Page 215</p>
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Stainless Steel – General Purpose and Precision

<p>Maxseal IFR3 & IFR4 filter/regulator 1/4", and 1/2"</p>  <p>Page 216</p>	<p>General purpose filter/regulator B38 1/2" PTF</p>  <p>Page 217</p>	<p>Filters, pressure regulators, lubricators F22, R22, L22 1/2" NPTF</p>  <p>Page 218</p>	<p>General purpose regulators & filter/regulator R05, B05 1/4" PTF</p>  <p>Page 219</p>
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FAST FIND GUIDE

Please note: These products represent only part of the Norgren air preparation range. If you can't see the option you require please contact us.

Compressed Air, Water, and Beverage

<p>Water pressure regulator 11-044 1/4" tube connection</p>  <p>Page 220</p>	<p>Water/air regulator R06 1/8" and 1/4"</p>  <p>Page 221</p>	<p>Water regulator R91 1/4"</p> <p>NSF</p>  <p>Page 222</p>	<p>Water regulators R43, 11-009 1/4", 3/8", and 1/2"</p>  <p>Page 223</p>	<p>U.L. listed industrial service regulators R44, R83 1/4"</p>  <p>Page 224</p>	<p>Relief valves 16-004 1/8", 1/4"</p>  <p>Page 225</p>
<p>High pressure needle valves 17-001 1/8", 1/4" NPT</p>  <p>Page 225</p>	<p>Drip leg drain 17-016 1/2"</p>  <p>Page 226</p>	<p>Gauges 18-015 1/8", and 1/4"</p>  <p>Page 226</p>			

Excelon® – Modular System

<p>Modular system Box sets BL72, 73, 74 1/4" to 3/4"</p>  <p>Page 227</p>	<p>General purpose filters F72G, F73G, F74G 1/4" to 3/4"</p>  <p>Page 228</p>	<p>Coalescing filters F72C, F73C, F74C 1/4" to 3/4"</p>  <p>Page 229</p>	<p>Oil vapor removal filters F72V, F74V 1/4" to 3/4"</p>  <p>Page 230</p>	<p>Manifold regulators R72M, R74M 1/4" to 3/4"</p>  <p>Page 231</p>	<p>Pressure regulators R72G, R73G, R74G 1/4" to 3/4"</p>  <p>Page 232</p>
<p>Filter/regulators B72G, B73G, B74G 1/4" to 3/4"</p>  <p>Page 233</p>	<p>Lubricators L72, L73, L74 1/4" to 3/4"</p>  <p>Page 235</p>	<p>Pressure relief valves V72G, V74G 1/4" to 3/4"</p>  <p>Page 236</p>	<p>Lockout valves T72, T73, T74 1/4" to 3/4"</p>  <p>Page 237</p>	<p>Soft start/dump valves P72F, P74F 1/4" to 3/4"</p>  <p>Page 238</p>	<p>Excelon® W74D Desiccant Compressed Air Dryer 3/8", 1/2"</p>  <p>Page 239</p>

Olympian® Plus Plug-in System

<p>General purpose filters F68E/F68G No yoke</p>  <p>Page 240</p>	<p>Regulators R68G No yoke</p>  <p>Page 241</p>	<p>Lubricators L68 No yoke</p>  <p>Page 241</p>
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Excelon® Plus

A completely modular Air Preparation system for all industrial applications



Excelon® Plus is the latest generation of Norgren Air Preparation equipment developed to meet the needs of today's customer. It offers exceptional performance, is compact and lightweight with no compromise on robustness, and is suitable for all industrial applications.

Excelon® Plus has been designed with safety in mind, offering built-in, tamper-proof features and a unique double lock on the bowls. Maintenance of the unit

is simplified with a new system where the element assembly is removed with the bowl.

The innovative family of Norgren Excelon® Plus products can be used where both stand-alone units or modular assemblies are required thanks to the slim line Norgren Quikclamp system. The one piece Norgren Quikclamp assembly with integrated brackets allows installation and removal of the units without breaking a pipe connection.

General Specifications

- > Port sizes: 1/4", 3/8", 1/2" or 3/4"
- > Thread type PTF or ISO G
- > Fluid: Compressed air
- > Maximum inlet pressure:
 - Polycarbonate bowl 150 psig (10 bar)
 - 3/8", 1/2", 3/4" Metal bowl 300 psig (20 bar)
 - 3/8", 1/4" Metal bowl 250 psig (17 bar)
- > Maximum temperature:
 - Polycarbonate bowl 140°F (60°C)
 - Metal bowl 150°F (65°C)

EXCELON® PLUS MODULAR SYSTEM

BL84 Filter/regulator-Lubricator Combination Units

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » 40 micron particle and high efficiency water removal (> 98%)
- » Unique Quikclamp connection system offers full modularity
- » Easy to read flush mounted gauge as standard

Technical Data

Medium:

Compressed air

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 290 psi (20 bar)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar)

Filter element:

40 µm

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Gauge:

Integrated as standard
Gauge port 1/8 as option

Diaphragm Type:

Relieving

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)
Minimum air flow required to close drain: 2 scfm (1 dm3/s)

Ambient/Media temperature:

Polycarbonate bowl:
+14 to +140°F (-10 to +60°C)
Metal bowl:

-4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum
Body covers: ABS
Bonnet: Acetal
Valve: PP
Transparent Bowl: Polycarbonate with Polypropylene Guard.
Metal Bowl: Die cast Aluminium with PA liquid level indicator lens
Filter element: sintered PP
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Units	Substitute
Filter/Regulator w. auto drain, Micro fog lubricator, Polycarbonate bowls	0
Filter/Regulator w. auto drain, Oil fog lubricator, Polycarbonate bowls	1
Filter/Regulator w. manual drain, Micro fog lubricator, Polycarbonate bowls	2
Filter/Regulator w. manual drain, Oil fog lubricator, Polycarbonate bowls	3
Filter/Regulator w. auto drain, Micro fog lubricator, Metal bowls	5
Filter/Regulator w. auto drain, Oil fog lubricator, Metal bowls	6
Filter/Regulator w. manual drain, Micro fog lubricator, Metal bowls	7
Filter/Regulator w. manual drain, Oil fog lubricator, Metal bowls	8

BL84-★ ★ ★ ★

Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Accessories	Substitute
Shut-off valve & gauge & brackets	1
Gauge & bracket	5

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Technical data BL84 - standard models

Symbol	Port size	Shut off valve	Drain	Lubricator type	Weight lb (kg)	Model *1)
	3/8	With	Manual	Microfog	1.6 (0.73)	BL84-321A
	1/2	With	Manual	Microfog	1.6 (0.73)	BL84-421A
	3/4	With	Manual	Microfog	1.6 (0.73)	BL84-621A
	3/8	With	Auto	Microfog	1.6 (0.73)	BL84-301A
	1/2	With	Auto	Microfog	1.6 (0.73)	BL84-401A
	3/4	With	Auto	Microfog	1.6 (0.73)	BL84-601A
	3/8	Without	Manual	Microfog	1.15 (0.52)	BL84-325A
	1/2	Without	Manual	Microfog	1.15 (0.52)	BL84-425A
	3/4	Without	Manual	Microfog	1.15 (0.52)	BL84-625A
	3/8	Without	Auto	Microfog	1.15 (0.52)	BL84-305A
	1/2	Without	Auto	Microfog	1.15 (0.52)	BL84-405A
	3/4	Without	Auto	Microfog	1.15 (0.52)	BL84-605A

*1) All models shown here are supplied with integrated gauge applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

B84G General purpose filter/regulator

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » 5 or 40 micron particle and high efficiency water removal (> 98%)
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm) 6:8:4 (5µm)
- » Easy to read flush mounted gauge as standard

Technical Data

Medium:

Compressed air

Maximum supply pressure:

Polycarbonate bowl: 10 bar (145 psi)
Metal bowl: 20 bar (290 psi)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar),
4 to 58 psi (0.3 to 4 bar),
2 to 250 psi (0.7 to 17 bar)

Filter element:

5 µm & 40 µm

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Gauge:

Integrated as standard
Gauge port 1/8 as option

Flow:

212 scfm (100 dm³/s)
At port size: 1/2",
inlet pressure 145 psi (10 bar),
91 psi (6.3 bar) set pressure and a
Δp: 14.5 psi (1 bar) drop from set.
Filter element: 40 µm

Diaphragm Type:

Relieving

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)
Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl:
+14 to +140°F (-10 to +60°C)
Metal bowl:
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum
Body covers: ABS
Bonnet: Acetal/ Aluminum
Valve: PP
Bowl: Transparent PC with PP guard or die cast aluminum
Liquid level indicator lens (metal bowl): PA
Filter element: sintered PP
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Option selector *1)

B84G-★ ★ ★ -★ ★ ★ -R★ ★

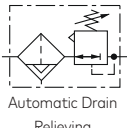
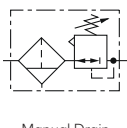
Option	Substitute	Option	Substitute
Port size	3	Gauge	G
3/8"	3	With integrated gauge	G
1/2"	4	Without integrated gauge but with gauge port 1/8"	N
3/4"	6	Pressure range *3)	
Thread form	A	5 to 58 psi (0.3 to 4 bar)	F
PTF	A	5 to 145 psi (0.3 to 10 bar)	M
ISO G parallel	G	10 to 246 psi (0.7 to 17 bar)	S*2)
Adjustment	K	Element	
Knob	K	40 µm	3
T-bar	T*2)	5 µm	1
Drain	Q		
Manual	Q		
Auto drain	A		
Bowl	D		
Metal with liquid indicator	D		
Transparent with guard	P		

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

*2) Units with 246 psi (17 bar) outlet pressure range are available only with the T-bar adjustment; therefore substitute T at the 7th position and S at the 9th position. T-bar handle only available with 17 bar option.

*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Technical data B84G - standard models

Symbol	Port PTF	Drain	Pressure range psi (bar)	Filter element (µm)	Bowl	Weight lb (kg)	Model *1)
 Automatic Drain Relieving	3/8	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-3AK-AP3-RMG
	1/2	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-4AK-AP3-RMG
	3/4	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-6AK-AP3-RMG
	3/8	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-3AK-AD3-RMG
	1/2	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-4AK-AD3-RMG
	3/4	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-6AK-AD3-RMG
 Manual Drain Relieving	3/8	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-3AK-QP3-RMG
	1/2	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-4AK-QP3-RMG
	3/4	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.6 (0.73)	B84G-6AK-QP3-RMG
	3/8	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-3AK-QD3-RMG
	1/2	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-4AK-QD3-RMG
	3/4	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	1.9 (0.88)	B84G-6AK-QD3-RMG

*1) All models shown here are supplied with integrated gauge applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

EXCELON® PLUS MODULAR SYSTEM

B84G Filter/regulator with integrated electronic pressure sensor

- » Electronic monitoring of secondary pressure
- » 1.44" full color graphic display. Excellent Visual Management.
- » Parameter Adjustment via front screen Buttons or Accessed Via IO-Link
- » Configurable switching output
- » Adjustable settings:
 - Setpoint
 - Tolerance
 - Hysteresis
 - Pressure Units
 - Temperature Units
 - Screen Orientation
 - Digital Output Type (NPN, PNP, Push-Pull)
 - Digital Output State (Normally High, Normally Low)
- » Install as a standard electronic pressure sensor or a pressure transducer with IO-Link

Technical features—integrated electronic pressure sensor

Secondary pressure measurement range:
0 to 145 psi (0 to 10 bar),
(0 ... 145 psi, 0 ... 1.0 MPa)

Repeatability:
≤ 0.1% of full scale (FS)
at stable temperature

Accuracy:
≤ 1.5% of full scale (FS) of
detected pressure
(0 ... +50°C, +122°F...+32°C)

Units:
Pressure: bar, psi, MPa
Temperature: °C, °F
Voltage: V

Display:
1.44" full colour TFT LCD
Text / background colours:
white/green: pressure in range
white/red: pressure out of range
white/amber: error
black white: setting mode

Display fields:
User configurable identifier, pressure value,
pressure units, user onfigurable message, menu

IO-Link function:
Pressure information
Pressure out of range warnings
Temperature diagnostic
Supply voltage diagnostic
Operating time diagnostic

Min. cycle time:
20 ms

 IO-Link



For product IODD file please use the online link <http://s.norgren.com/digital-gauge-iodd>
for a copy of the Quick Start Guide or comprehensive Operators manual please use
the following online link www.norgren.com/excelon-plus

Electrical connection M8 x 1

Pin-No.	Signal	Cable
1	L+ (24V)	brown
2	Out 2 (switching)	white
3	L- (0V)	blue
4	C/Q (IO-Link)	black

Electrical connection:
M8 x 1

Power supply:
18 ... 30 V d.c.

Current consumption:
20 mA

Electromagnetic compatibility:
According to EN 61000-6-2;
EN 61000-6-3

Switching output:
Configurable NPN / PNP /
Push-Pull / NO / NC / hi-Z

Load current:
100mA with short
circuit protection

Technical data B84G - standard models with integrated electronic pressure sensor

Symbol	Port PTF	Drain	Pressure range psi (bar)	Filter element (µm)	Bowl	Weight lb (kg)	Model *)
	3/8	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-3AK-AP3-RME
	1/2	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-4AK-AP3-RME
	3/4	Auto	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-6AK-AP3-RME
	3/8	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-3AK-AD3-RME
	1/2	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-4AK-AD3-RME
	3/4	Auto	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-6AK-AD3-RME
	3/8	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-3AK-QP3-RME
	1/2	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-4AK-QP3-RME
	3/4	Manual	5 to 145 (0.3 to 10)	40	Guarded polycarbonate	1.1 (0.93)	B84G-6AK-QP3-RME
	3/8	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-3AK-QD3-RME
	1/2	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-4AK-QD3-RME
	3/4	Manual	5 to 145 (0.3 to 10)	40	Metal with level indicator	2.4 (1.08)	B84G-6AK-QD3-RME

*) All models shown here are supplied with integrated pressure sensor applicable for flow direction left to right.
With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

 More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

F84G - General purpose filter

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » 5 or 40 micron particle and high efficiency water removal (> 98%)
- » Air purity classes in accordance to ISO8573-1: particles class 6 & 7 and liquid water class 8
- » Metal bowl with prismatic liquid level indicator lens

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 290 psi (20 bar)

Filter element:

5 µm & 40 µm

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

165 scfm (78 dm³/s) at port size: 1/2",
operating pressure 91 psi (6.3 bar)
and a Δp: 7.25 psi (0.5 bar) drop
from set. Filter element: 40 µm

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)
Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl:
14 to +140°F (-10 to +60°C)
Metal bowl:
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Atex:

F84 filters are in conformity
with Atex 2014/34/EU

II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminum
Body covers: ABS
Transparent Bowl:
Polycarbonate with
Polypropylene Guard.
Metal Bowl: Die cast Aluminum
with PA liquid level indicator lens
Filter element: sintered PP
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Technical data F84G - standard models

Symbol	Port size PTF	Drain	Filter element (µm)	Bowl	Weight lb (kg)	Model
	3/8	Auto	40	Guarded polycarbonate	0.8 (0.38)	F84G-3AN-AP3
	1/2	Auto	40	Guarded polycarbonate	0.8 (0.38)	F84G-4AN-AP3
	3/4	Auto	40	Guarded polycarbonate	0.8 (0.38)	F84G-6AN-AP3
	3/8	Auto	40	Metal with level indicator	1.1 (0.52)	F84G-3AN-AD3
	1/2	Auto	40	Metal with level indicator	1.1 (0.52)	F84G-4AN-AD3
	3/4	Auto	40	Metal with level indicator	1.1 (0.52)	F84G-6AN-AD3
	3/8	Manual	40	Guarded polycarbonate	0.8 (0.38)	F84G-3AN-QP3
	1/2	Manual	40	Guarded polycarbonate	0.8 (0.38)	F84G-4AN-QP3
	3/4	Manual	40	Guarded polycarbonate	0.8 (0.38)	F84G-6AN-QP3
	3/8	Manual	40	Metal with level indicator	1.1 (0.52)	F84G-3AN-QD3
	1/2	Manual	40	Metal with level indicator	1.1 (0.52)	F84G-4AN-QD3
	3/4	Manual	40	Metal with level indicator	1.1 (0.52)	F84G-6AN-QD3

Option selector

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Drain	Substitute
Manual (standard)	Q
Auto drain (standard)	A

F84G-★N-★★★

Element	Substitute
5 µm	1
40 µm (standard)	3
Bowl	Substitute
Transparent with guard (standard)	P
Metal with liquid indicator (optional)	D

➔ More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

F84C - Oil removal filter

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Air purity class in accordance with ISO 8573-1: Remaining oil aerosol to class 1*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³)

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 290 psi (20 bar)

Remaining oil content:
0.01 mg/m³ at +69°F (+21°C)

Particle removal:
To 0.01 µm

Port size:
G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:
Maximum flow to maintain stated oil removal performance at challenge rate of 4 mg/m³
F84C: 53 scfm (25 dm³/s),
at port size: 1/2"

Operating pressure:
91 psi (6.3 bar)

Drain:
Manual or automatic


Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 ba)
Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl:
+14 to +140°F (-10 to +60°C)
Metal bowl:
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).
Note: Install an F84G filter with a 5 µm filter element upstream of the F84C



Atex:
F84 filters are in conformity with Atex 2014/34/EU

II 2 GD
 Ex h IIC T6 Gb
 EX h IIC T85°C Db

Materials:
Body: Die cast aluminium
Body covers: ABS
Transparent Bowl: Polycarbonate with Polypropylene Guard.
Metal Bowl: Die cast Aluminium with PA liquid level indicator lens
Filter element: Synthetic fiber & PE foam
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Technical data F84C - standard models

Symbol	Port size PTF	Drain	Bowl	Weight lb (kg)	Model
	3/8	Auto	Guarded polycarbonate	0.8 (0.38)	F84C-3AD-APO
	1/2	Auto	Guarded polycarbonate	0.8 (0.38)	F84C-4AD-APO
	3/4	Auto	Guarded polycarbonate	0.8 (0.38)	F84C-6AD-APO
	3/8	Auto	Metal with level indicator	1.1 (0.52)	F84C-3AD-ADO
	1/2	Auto	Metal with level indicator	1.1 (0.52)	F84C-4AD-ADO
	3/4	Auto	Metal with level indicator	1.1 (0.52)	F84C-6AD-ADO
	3/8	Manual	Guarded polycarbonate	0.8 (0.38)	F84C-3AD-QPO
	1/2	Manual	Guarded polycarbonate	0.8 (0.38)	F84C-4AD-QPO
	3/4	Manual	Guarded polycarbonate	0.8 (0.38)	F84C-6AD-QPO
	3/8	Manual	Metal with level indicator	1.1 (0.52)	F84C-3AD-QDO
	1/2	Manual	Metal with level indicator	1.1 (0.52)	F84C-4AD-QDO
	3/4	Manual	Metal with level indicator	1.1 (0.52)	F84C-6AD-QDO

Option selector

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G parallel (standard)	G

F84C-★★D-★★0

Bowl	Substitute
Metal with liquid indicator	D
Transparent with guard (standard)	P
Drain	Substitute
Manual (standard)	Q
Auto drain (standard)	A

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

F84V - Oil vapor removal filter

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Air purity class in accordance with ISO 8573-1: Remaining oil aerosol to class 0*
*Tested in accordance with the methods laid out in ISO 12500-2 using an inlet oil aerosol concentration of 0.018mg/m³
- » Light weight Polycarbonate bowl; Metal bowl option

Technical data

Medium:

Compressed air only

Maximum operating pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 290 psi (20 bar)

Remaining oil content:

0.003 mg/m³ max. at +69°F (+21°C)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

53 scfm (25 dm³/s) to maintain
stated oil content at port size: 1/2"

Operating pressure:

91 psi (6.3 bar)

Ambient/Media temperature:

-4 to +149°F (-20 to +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C)
Note: Install an F84C coalescing
filter upstream of the F84V filter
for maximum service life.

Atex:

F84 filters are in conformity
with Atex 2014/34/EU



II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminum
Body covers: ABS
Transparent Bowl:
Polycarbonate with
Polypropylene Guard.
Metal Bowl: Die cast Aluminium
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Technical data F84V - standard models

Symbol	Port size PTF	Drain	Filter element (µm)	Bowl	Weight lb (kg)	Model
	3/8	Closed bowl	Vapor removal	Guarded polycarbonate	0.8 (0.38)	F84V-3AN-EPA
	1/2	Closed bowl	Vapor removal	Guarded polycarbonate	0.8 (0.38)	F84V-4AN-EPA
	3/4	Closed bowl	Vapor removal	Guarded polycarbonate	0.8 (0.38)	F84V-6AN-EPA
	3/8	Closed bowl	Vapor removal	Metal bowl - no sight glass	1.1 (0.52)	F84V-3AN-EMA
	1/2	Closed bowl	Vapor removal	Metal bowl - no sight glass	1.1 (0.52)	F84V-4AN-EMA
	3/4	Closed bowl	Vapor removal	Metal bowl - no sight glass	1.1 (0.52)	F84V-6AN-EMA

Option selector

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6

F84V-★★N-E★A

Bowl	Substitute
Metal	M
Transparent with guard (standard)	P
Thread form	Substitute
PTF	A
ISO G parallel (standard)	G



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

R84G - Pressure regulator

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Push to lock adjusting knob with built in tamper resistant feature
- » Easy to read flush mounted gauge as standard, integrated electronic pressure sensor as option

Technical data

Medium:
Compressed air only

Maximum supply pressure:
290 psi (20 bar)
Outlet pressure ranges:
4 to 145 psi (0.3 to 10 bar),
4 to 58 psi (0.3 to 4 bar),
10 to 247 psi (0.7 to 17 bar)

Gauge:
Integrated as standard
Gauge port 1/8" as option

Port size:
G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:
265 scfm (125 dm³/s)
at port size: 1/2",
inlet pressure 145 psi (10 bar),
91 psi (6.3 bar) set pressure and a
Δp: 14.5 psi (1 bar) droop from set.

Diaphragm Type:
Relieving

Ambient/Media temperature:
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Atex:
R84 regulators are in conformity
with Atex 2014/34/EU
II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db
excluding all versions with
electronic pressure sensor

Materials:
Body: Die cast aluminum
Body covers: ABS
Bonnet: POM/Aluminum
Elastomers: NBR
Valve: PP



Technical data R84G - standard models with integrated flush mounted gauge

Symbol	Port PTF	Pressure range psi (bar)	Adjustment	Integrated gauge psi (bar)	Weight lb (kg)	Model*)
	3/8	5 to 145 (0.3 to 10)	Knob	0 to 145 (0 to 10)	1.30 (0.59)	R84G-3AK-RMG
	1/2	5 to 145 (0.3 to 10)	Knob	0 to 145 (0 to 10)	1.30 (0.59)	R84G-4AK-RMG
	3/4	5 to 145 (0.3 to 10)	Knob	0 to 145 (0 to 10)	1.30 (0.59)	R84G-6AK-RMG

*) All models shown here are supplied with integrated gauge applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G parallel	G
Adjustment	Substitute
Knob	K
T-bar	T*2)

R84G-★ ★ ★-R★ ★

Gauge	Substitute
With (fitted integrated gauge)	G
Without integrated gauge but with gauge port 1/8"	N
Pressure range *3)	Substitute
4 to 58 psi (0.3 to 4 bar)	F
4 to 145 psi (0.3 to 10 bar)	M
10 to 247 psi (0.7 to 17 bar)	S*2)

*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren
*2) Units with 247 psi (17 bar) outlet pressure range are available only with the T-bar adjustment; therefore substitute T at the 7th position and S at the 9th position. T-bar handle only available with 247 psi (17 bar) option.

➔ More info and CAD available online at: [norgren.com](http://www.norgren.com)

EXCELON® PLUS MODULAR SYSTEM

L84M, L84C - Micro-Fog and Oil-Fog Lubricators

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » Metal bowl with prismatic liquid level indicator lens
- » Choice of two oil delivery systems

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 290 psi (20 bar)

Bowl

6.7 ounce (0.2 liter)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

Micro-fog : 155 scfm (73 dm³/s)
Oil-fog: 193 scfm (91 dm³/s) at port
size: 1/2", operating pressure:
91 psi (6.3 bar) and Δp: 7.25 psi (0.5 bar)

Ambient/Media temperature:

Polycarbonate bowl: 14 to +140°F (-10 to +60°C)
Metal bowl: -4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice
formation at temperatures below +35°F (+2°C).

Materials:

Bowl: PC with PP guard
Metal bowl: Die cast aluminum
Body: Die cast aluminum
Body cover: ABS
Sightdome: Transparent PA
Bowl 'o'- ring: Chloroprene
Elastomers: NBR



Technical data L84 - standard models

Symbol	Port PTF	Lubricator type	Bowl	Weight lb (kg)	Model
◇	3/8	Micro fog	Guarded polycarbonate	0.9 (0.40)	L84M-3AP-EPN
	1/2	Micro fog	Guarded polycarbonate	0.9 (0.40)	L84M-4AP-EPN
	3/4	Micro fog	Guarded polycarbonate	0.9 (0.40)	L84M-6AP-EPN
	3/8	Micro fog	Metal with level indicator	1.1 (0.53)	L84M-3AP-EDN
	1/2	Micro fog	Metal with level indicator	1.1 (0.53)	L84M-4AP-EDN
	3/4	Micro fog	Metal with level indicator	1.1 (0.53)	L84M-6AP-EDN
	3/8	Oil fog	Guarded polycarbonate	0.9 (0.40)	L84C-3AP-EPN
	1/2	Oil fog	Guarded polycarbonate	0.9 (0.40)	L84C-4AP-EPN
	3/4	Oil fog	Guarded polycarbonate	0.9 (0.40)	L84C-6AP-EPN
	3/8	Oil fog	Metal with level indicator	1.1 (0.53)	L84C-3AP-EDN
	1/2	Oil fog	Metal with level indicator	1.1 (0.53)	L84C-4AP-EDN
	3/4	Oil fog	Metal with level indicator	1.1 (0.53)	L84C-6AP-EDN

Option selector

Type	Substitute
Oil fog lubricator	C
Micro fog lubricator	M
Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G parallel	G

L84★-★★P-E★N

Bowl	Substitute
Metal with liquid level indicator	D
Transparent with guard	P



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

T84T - 3/2 shut-off valve

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Lockable in closed position with padlock
- » Threaded exhaust port
- » 3/2 way function

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

290 psi (20 bar)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

1/2": 343 scfm (162 dm³/s)
at 91 psi (6.3 bar) and Δp 7 psi
(0.5 bar) pressure drop,
3.8 scfm (1.8 dm³/s) from
OUT to exhaust port.

Ambient/Media temperature:

-4 to +149°F (-20 to +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Atex:

T84 filters are in conformity
with Atex 2014/34/EU



II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminum
Body covers: ABS
Elastomers: NBR
Valve: Brass



Technical data T84T - standard models

Symbol	Port PTF	Function	Valve type	Exhaust port forms	Weight lb (kg)	Model
	3/8	3/2	Ball valve	Exhaust port threaded PTF1/4	1.0 (0.48)	T84T-3AA-B1N
	1/2	3/2	Ball valve	Exhaust port threaded PTF1/4	1.0 (0.48)	T84T-4AA-B1N
	3/4	3/2	Ball valve	Exhaust port threaded PTF1/4	1.0 (0.48)	T84T-6AA-B1N

Option selector

Function	Substitute
3/2	T

T84T-★ ★A-B1N

Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Port size	Substitute
3/8"	3
1/2"	4
3/4"	6



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

P84F 3/2 Soft Start/Dump Valve

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » High forward flow capacity
- » High flow dump facility
- » Variable Snap Adjustment

Technical data

Medium:

Compressed air only

Maximum supply pressure:

145 psi (10 bar)

Minimum operating pressure:

43 psi (3 bar)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

108 scfm (51 dm³/s) at port size 1/2"
Full flow P1 to P2 @ 91 psi
(6.3 bar) inlet, with 7 psi
(0.5 bar) pressure drop
P2 to P3 = 138 scfm (65 dm³/s)

Ambient/Media temperature:

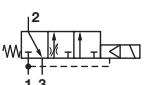
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Materials:

Body: Aluminum
End Caps: Aluminum
Body covers: ABS
Elastomers: NBR
Valve: Brass



Technical data P84F

Symbol	Port Size (PTF)	Function	Voltage	Exhaust Port (PTF)	Weight lbs (g)	Model
	3/8	3/2 Soft Start	24 VDC	1/2	2.34 (1060)	P84F-3AT-PFA
	1/2	3/2 Soft Start	24 VDC	1/2	2.34 (1060)	P84F-4AT-PFA
	3/4	3/2 Soft Start	24 VDC	1/2	2.34 (1060)	P84F-6AT-PFA

Option selector

Function	Substitute	P84F-★ ★ T-P★ A		Voltage	Substitute
3/2 Soft Start	F	←	→	24 VDC	F
Port Size	Substitute	←	→	110 VAC	A
3/8"	3			220 VAC	B
1/2"	4				
3/4"	6				
Thread Form	Substitute	←	→		
PTF	A				
ISO G	G				



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

HBL84G - Filter/regulator-lubricator combination units

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » 40 micron particle and high efficiency water removal (> 98%)
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm) 6:8:4 (5µm)
- » Salt Spray compliant to ISO 9227

Technical Data

Medium:
Compressed air only

Maximum supply pressure:
20 bar (290 psi)

Operating pressure ranges:
0.3 ...10 bar (4 ... 145 psi)

Port size:
G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Filter element:
40 µm

Gauge:
Gauge port as standard

Diaphragm Type:
Relieving

Drain:
Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 0.35 bar (5 psi)
Bowl pressure required to open drain: ≤ 0.2 bar (2.9 psi)
Minimum air flow required to close drain: 1 dm³/s (2 scfm)

Ambient/Media temperature:

-20... +65°C (-4 ... +149°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
Body: Die cast aluminium
Body covers: ABS (Magnum 3904)
Bonnet: Acetal
Filter element: sintered Polypropylene
Valve: Brass and
Lower temperature Nitrile
Metal Bowl: Die cast Aluminium
Diaphragm: Low temperature Silicone, polyester reinforced
Lower spring rest and diaphragm retainer: Aluminium
Bowl O-ring: Low temp Nitrile
Elastomers: Low temp Nitrile



Technical data HBL84 - standard models

Symbol	Port size	Shut off valve	Drain	Lubricator type	Weight lb (kg)	Model *1)
	3/8	With	Manual	Microfog	3.7 (1.65)	HBL84-371A
	1/2	With	Manual	Microfog	3.7 (1.65)	HBL84-471A
	3/4	With	Manual	Microfog	3.7 (1.65)	HBL84-671A
	3/8	With	Auto	Microfog	3.7 (1.65)	HBL84-351A
	1/2	With	Auto	Microfog	3.7 (1.65)	HBL84-451A
	3/4	With	Auto	Microfog	3.7 (1.65)	HBL84-651A
	3/8	Without	Manual	Microfog	2.5 (1.15)	HBL84-375A
	1/2	Without	Manual	Microfog	2.5 (1.15)	HBL84-475A
	3/4	Without	Manual	Microfog	2.5 (1.15)	HBL84-675A
	3/8	Without	Auto	Microfog	2.5 (1.15)	HBL84-355A
	1/2	Without	Auto	Microfog	2.5 (1.15)	HBL84-455A
	3/4	Without	Auto	Microfog	2.5 (1.15)	HBL84-655A

*1) All models shown here are supplied with integrated gauge applicable for flow direction left to right.
With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Units	Substitute
Filter/Regulator w. auto drain, Micro fog lubricator, Metal bowls	5
Filter/Regulator w. auto drain, Oil fog lubricator, Metal bowls	6
Filter/Regulator w. manual drain, Micro fog lubricator, Metal bowls	7
Filter/Regulator w. manual drain, Oil fog lubricator, Metal bowls	8

HBL84-★★★★

Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Accessories	Substitute
Shutt-off valve & gauge & brackets	1
Gauge & bracket	5

*1) All models shown here are applicable for flow direction left to right.
With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

HB84G - Filter/regulator for extreme temperature applications

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » 5 or 40 micron particle and high efficiency water removal (> 98%)
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm) 6:8:4 (5µm)
- » Salt Spray compliant to ISO 9227

Technical Data

Medium:

Compressed air

Maximum supply pressure:

20 bar (290 psi)

Operating pressure ranges:

0.3 ... 10 bar (4 ... 145 psi)
0.3 ... 4 bar (4 ... 58 psi) optional
0.7 ... 17 bar (2 ... 247 psi) optional

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Filter element:

5 µm & 40 µm

Gauge:

Gauge port as standard
(Rc 1/8 or 1/8 PTF)
Integrated gauge as option

Diaphragm Type:

Relieving & Non-Relieving

Drain:

Manual or automatic

Flow:

100 dm³/s at port size: 1/2", inlet
pressure 10 bar (145 psi), 6.3 bar (91 psi)
set pressure and a Δp: 1 bar (14.5 psi)
drop from set

Automatic drain operating conditions (float operated):

Bowl pressure required to close
drain: > 0.35 bar (5 psi)
Bowl pressure required to open
drain: ≤ 0.2 bar (2.9 psi)
Minimum air flow required to
close drain: 1 dm³/s (2 scfm)

Ambient/Media temperature:

Unit with gauge port without
integrated gauge:
-40 ... +80°C (-40 ... +176°F)
Air supply must be dry enough to avoid
ice formation at temperatures below
+2°C (+35°F).

Atex:

Filter/regulators B84 are in
conformity with ATEX 2014/34/EU

II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminium
Body covers: ABS (Magnum 3904)
Bonnet: Die cast aluminium
Filter element: sintered Polypropylene
Valve: Brass and

+80°C
(+176°F)

-40°C
(-40°F)



Technical data HB84G - standard models with gauge port Rc1/8 (without gauge)

Symbol	Port size	Drain	Pressure range psi (bar)	Filter element (µm)	Bowl	Weight lb (kg)	Model *1)
	3/8	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.1 (0.95)	HB84G-3AT-AD3-RMN
	1/2	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.1 (0.94)	HB84G-4AT-AD3-RMN
	3/4	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.0 (0.92)	HB84G-6AT-AD3-RMN
	3/8	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.1 (0.95)	HB84G-3AT-MD3-RMN
	1/2	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.0 (0.93)	HB84G-4AT-MD3-RMN
	3/4	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	2.0 (0.91)	HB84G-6AT-MD3-RMN

*1) All models shown here are supplied with gauge port applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G	G
Drain	Substitute
Manual (standard)	M
Auto drain (standard)	A
Open ended (with male thread adaptor)	N*2)

HB84G-★★T-★★-★★

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

*2) Available on request

*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

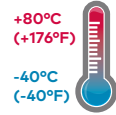
*4) Attention: With integrated gauge temperature range of the unit changes to -20°C ... +65°C

Gauge	Substitute
Without integrated gauge but with gauge port 1/8"	N
With integrated gauge *4)	G
Pressure range *3)	Substitute
0.3 ... 4 bar	F
0.3 ... 10 bar	M
0.7 ... 17 bar	S
Diaphragm Type	Substitute
Relieving	R
Non-Relieving	N
Element	Substitute
5 µm	1
40 µm	3
Bowl	Substitute
Metal with liquid indicator	D
Metal	M

EXCELON® PLUS MODULAR SYSTEM

HF84G - General purpose filter for extreme temperature applications

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » 5 or 40 micron particle and high efficiency water removal (> 98%)
- » Air purity classes in accordance to ISO8573-1:2010: 7:8:4 (40µm) 6:8:4 (5µm)
- » Salt Spray compliant to ISO 9227



Technical Data

Medium:

Compressed air only

Maximum supply pressure:

20 bar (290 psi)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Filter element:

5 µm & 40 µm

Gauge:

Gauge port as standard

Diaphragm Type:

Relieving

Drain:

Manual or automatic

Flow:

78 dm³/s at port size: 1/2",
operating pressure 6.3 bar
(91 psi) and a Δp: 0.5 bar
(7.25 psi) drop from set.

Automatic drain operating conditions (float operated):

Bowl pressure required to close
drain: > 0.35 bar (5 psi)

Bowl pressure required to open
drain: ≤ 0.2 bar (2.9 psi)

Minimum air flow required to
close drain: 1 dm³/s (2 scfm)

Ambient/Media temperature:

-40 ... +80°C (-40 ... +176°F)

Air supply must be dry enough to avoid
ice formation at temperatures below +2°C (+35°F).

Materials:

Body: Die cast aluminium

Body covers: ABS (Magnum 3904)

Filter element: sintered Polypropylene

Metal Bowl: Die cast Aluminium

Bowl O-ring: Low temp Nitrile

Elastomers: Low temp Nitrile



Technical data HF84G - standard models

Symbol	Port size	Drain	Filter element (µm)	Bowl	Weight lb (kg)	Model
	3/8	Manual	40	Metal with level indicator	1.1 (0.51)	HF84G-3AN-MD3
	1/2	Manual	40	Metal with level indicator	1.1 (0.51)	HF84G-4AN-MD3
	3/4	Manual	40	Metal with level indicator	1.1 (0.51)	HF84G-6AN-MD3
	3/8	Auto	40	Metal with level indicator	1.1 (0.51)	HF84G-3AN-AD3
	1/2	Auto	40	Metal with level indicator	1.1 (0.51)	HF84G-4AN-AD3
	3/4	Auto	40	Metal with level indicator	1.1 (0.51)	HF84G-6AN-AD3

Option selector

HF84G-***N-***0

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G	G

Element	Substitute
5 µm	1
40 µm (standard)	3
Bowl	Substitute
Metal	M
Metal with level indicator	D
Drain	Substitute
Manual	M
Auto drain	A
Open ended *1) (with male thread adaptor)	N

*1) Available on request

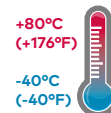


More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

HF84C - Oil removal filter for extreme temperature applications

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Air purity class in accordance with ISO8573-1:2010: 1:7:1*
*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³
- » Salt Spray compliant to ISO 9227



Technical Data

Medium:

Compressed air

Maximum supply pressure:

20 bar (290 psi)

Remaining oil content:

0.01 mg/m³ at +21°C (+69°F)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Particle removal:

To 0.01 µm

Flow:

Maximum flow to maintain stated oil removal performance at challenge rate of 4 mg/m³
HF84C: 25 dm³/s, at port size: 1/2"
Operating pressure: 6.3 bar (91 psi)

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 0.35 bar (5 psi)
Bowl pressure required to open drain: ≤ 0.2 bar (2.9 psi)
Minimum air flow required to close drain: 1 dm³/s (2 scfm)

Ambient/Media temperature:

-40 ... +80°C (-40 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).
Note: Install an HF84G filter with a 5 µm filter element upstream of the HF84G filter for maximum service life.

Atex:

Filters HF84 are in conformity with Atex 2014/34/EU

II 2 GD
Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminium
Body covers: ABS (Magnum 3904)
Metal Bowl: Die cast Aluminium
Filter element: Synthetic fiber & PE foam
Bowl 'o'- ring: Low temperature Nitrile
Elastomers: Low temperature Nitrile

Technical data HF84C - standard models

Symbol	Port size	Drain	Bowl	Weight lb (kg)	Model
	3/8	Auto	Metal with level indicator	1.1 (0.52)	HF84C-3AN-ADO
	1/2	Auto	Metal with level indicator	1.1 (0.51)	HF84C-4AN-ADO
	3/4	Auto	Metal with level indicator	1.1 (0.49)	HF84C-6AN-ADO
	3/8	Manual	Metal with level indicator	1.1 (0.52)	HF84C-3AN-MDO
	1/2	Manual	Metal with level indicator	1.1 (0.51)	HF84C-4AN-MDO
	3/4	Manual	Metal with level indicator	1.1 (0.49)	HF84C-6AN-MDO

Option selector

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G	G

HF84C-★N-★O

Bowl	Substitute
Metal	M
Metal with level indicator	D
Drain	Substitute
Manual	M
Auto drain	A
Open ended *1) (with male thread adaptor)	N

*1) Available on request

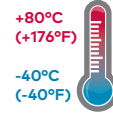


More info and CAD available online at:
www.norgren.com

EXCELON® PLUS MODULAR SYSTEM

HF84V - Oil vapor removal filter for extreme temperature applications

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Air purity class in accordance with ISO8573-1:2010: -:7:0*
*Tested in accordance with the methods laid out in ISO 12500-2 using an inlet oil aerosol concentration of 0.018mg/m³
- » Salt Spray compliant to ISO 9227



Technical Data

Medium:

Compressed air only

Maximum supply pressure:

20 bar (290 psi)

Remaining oil content:

0.003 mg/m³ max. at +21°C (+69°F)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

25 dm³/s to maintain stated oil content at port size: G1/2

Operating pressure:


6.3 bar (91 psi)

Ambient/Media temperature:

-40 ... +80°C (-40 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Atex:

Filters HF84 are in conformity with Atex 2014/34/EU


II 2 GD
 Ex h IIC T6 Gb
 EX h IIIC T85°C Db

Materials:

Body: Die cast aluminium
 Body covers: ABS (Magnum 3904)
 Metal Bowl: Die cast Aluminium
 Bowl 'o'- ring: Low temperature Nitrile
 Elastomers: Low temperature Nitrile



Technical data HF84V - standard models

Symbol	Port size	Drain	Filter element	Bowl	Weight lb (kg)	Model
	3/8	Closed bowl	Vapor removal	Metal	1.1 (0.51)	HF84V-3AN-EMA
	1/2	Closed bowl	Vapor removal	Metal	1.1 (0.51)	HF84V-4AN-EMA
	3/4	Closed bowl	Vapor removal	Metal	1.1 (0.51)	HF84V-6AN-EMA

Option selector

HF84V-★★N-EMA

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6

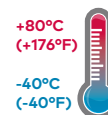
Thread form	Substitute
PTF	A
ISO G parallel (standard)	G

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

HR84G - Pressure regulator for extreme temperature applications

- » Port size: 3/8" ... 3/4" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » ABS cover with high impact properties
- » Salt Spray compliant to ISO 9227



Technical Data

Medium:

Compressed air only

Maximum supply pressure:

20 bar (290 psi)

Outlet pressure ranges:

0.3 ... 10 bar (4 ... 145 psi),
0.3 ... 4 bar (4 ... 58 psi) optional,
0.7 ... 17 bar (10 ... 247 psi) optional

Gauge:

Gauge port as standard
(Rc 1/8 or 1/8 PTF)
Integrated gauge as option

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Diaphragm Type:

Relieving & Non-Relieving

Drain:

Manual or automatic

Flow:

116 dm³/s at port size: 1/2",
Inlet pressure 10 bar (145 psi),
6.3 bar (91 psi) set pressure and
a Δp: 1 bar (14.5 psi) drop from set.

Ambient/Media temperature:

Unit with gauge port
without integrated gauge:
-40 ... +80°C (-40 ... +176°F)
Air supply must be dry enough
to avoid ice formation at temperatures
below +2°C (+35°F).

Atex:

Regulators HR84 are in conformity
with ATEX 2014/34/EU

II 2 GD



Ex h IIC T6 Gb
EX h IIIC T85°C Db

Materials:

Body: Die cast aluminium
Body covers: ABS (Magnum 3904)
Bonnet: Die cast Aluminium
Valve: Brass and Low temperature Nitrile
Elastomers: Low temperature Nitrile
Diaphragm: Low temperature Silicone,
polyester reinforced
Lower spring rest and diaphragm retainer:
Aluminium



Technical data HR84G - standard models with gauge port Rc1/8 (without gauge)

Symbol	Port size	Pressure range psi (bar)	Adjustment	Diaphragm Type	Weight (kg)	Model*)
	3/8	4 to 145 (0.3 to 10)	T-bar	Relieving	0.75	HR84G-3AT-RMN
	1/2	4 to 145 (0.3 to 10)	T-bar	Relieving	0.75	HR84G-4AT-RMN
	3/4	4 to 145 (0.3 to 10)	T-bar	Relieving	0.73	HR84G-6AT-RMN

*) All models shown here are supplied with gauge port applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
3/8"	3
1/2"	4
3/4"	6
Thread form	Substitute
PTF	A
ISO G	G
Adjustment	Substitute
T-bar	T

HR84G-★★T-★★★

Gauge	Substitute
Without integrated gauge but with gauge port 1/8"	N
With integrated gauge *3)	G
Pressure range *2)	Substitute
0.3 ... 4 bar	F
0.3 ... 10 bar (standard)	M
0.7 ... 17 bar	S
Diaphragm Type	Substitute
Relieving	R
Non-Relieving	N

*1) All models shown here are applicable for flow direction left to right.
With flow direction right to left please use the online configurator
www.norgren.com/air-preparation-configurator or contact Norgren

*2) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

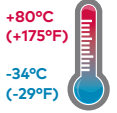
*3) Attention : With integrated gauge temperature range of the unit changes to -20°C ... +65°C

➔ More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

HL84M, HL84C - Lubricators for extreme temperature applications

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » Metal bowl with prismatic liquid level indicator lens
- » Choice of two oil delivery systems
- » Salt Spray compliant to ISO 9227



Technical Data

Medium:

Compressed air only

Maximum supply pressure:

290 psi (20 bar)

Bowl

6.7 ounce (0.2 liter)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

Micro-fog : 73 dm³/s
Oil-fog: 91 dm³/s at port size:
1/2", operating pressure: 91 psi
(6.3 bar) and Δp: 7.25 psi (0.5 bar)

Start point:

0.94 dm³/s

Operating pressure:

91 psi (6.3 bar)

Ambient/Media temperature:

-29 ... +175°F (-34 ... 80°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C (+35°F).

Materials:

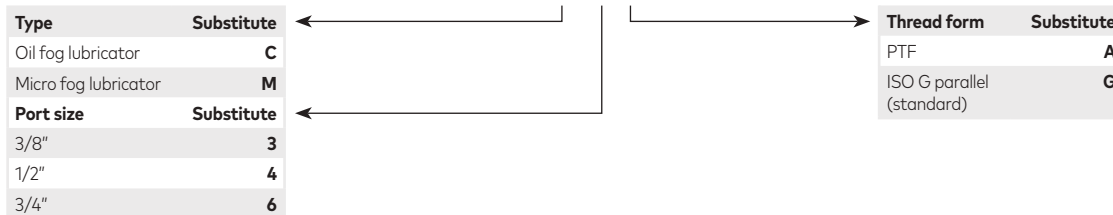
Metal Bowl: Die cast Aluminum
with PA liquid level indicator lens
Body: Die cast aluminum
Body cover: ABS (Magnum 3904)
Sightdome: Transparent PA
Bowl O-ring: Low temperature Nitrile
Elastomers: Low temperature Nitrile



Technical data HL84 - standard models

Symbol	Port size	Lubricator type	Bowl	Weight lb (kg)	Model
	3/8	Micro fog	Metal with level indicator	1.1 (0.53)	HL84M-3AP-EDN
	1/2	Micro fog	Metal with level indicator	1.1 (0.53)	HL84M-4AP-EDN
	3/4	Micro fog	Metal with level indicator	1.1 (0.53)	HL84M-6AP-EDN
	3/8	Oil fog	Metal with level indicator	1.1 (0.53)	HL84C-3AP-EDN
	1/2	Oil fog	Metal with level indicator	1.1 (0.53)	HL84C-4AP-EDN
	3/4	Oil fog	Metal with level indicator	1.1 (0.53)	HL84C-6AP-EDN

Option selector



➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

HT84T - 3/2 shut-off valve for extreme temperature applications

- » Port size: 3/8" ... 3/4" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » 3/2 way function
- » Threaded exhaust port
- » Lockable in closed position with padlock
- » Salt Spray compliant to ISO 9227

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

290 psi (20 bar)

Port size:

G3/8, G1/2, G3/4,
3/8 PTF, 1/2 PTF, 3/4 PTF

Flow:

From IN to OUT ports:
1/2": 162 dm³/s at 6.3 bar and
 Δp 0.5 bar pressure drop, 1.8 dm³/s
from OUT to exhaust port.

Operating pressure:

91 psi (6.3 bar)


Ambient/Media temperature:

-40 ... +80°C (-40 ... +176°F)

Air supply must be dry enough
to avoid ice formation at
temperatures below +2°C (+35°F).

Atex:

Filters HT84 are in conformity
with Atex 2014/34/EU

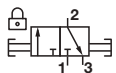
II 2 GD
 Ex h IIC T6 Gb
 EX h IIIC T85°C Db

Materials:

Body: Die cast aluminum
Body covers: ABS (Magnum 3904)
Elastomers: NBR



Technical data HT84T - standard models

Symbol	Port size	Function	Valve type	Exhaust port forms	Weight lb (kg)	Model
	3/8	3/2	Ball valve	Exhaust port threaded 1/4	1.1 (0.48)	HT84T-3AA-B1N
	1/2	3/2	Ball valve	Exhaust port threaded 1/4	1.1 (0.48)	HT84T-4AA-B1N
	3/4	3/2	Ball valve	Exhaust port threaded 1/4	1.1 (0.48)	HT84T-6AA-B1N

Option selector

Function	Substitute
3/2	T

HT84T-★★A-B1N

Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Port size	Substitute
3/8"	3
1/2"	4
3/4"	6



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

BL82 Filter/regulator-Lubricator Combination Units

- » Port size: 1/4" and 3/8" (PTF/ISO G)
- » Unique Quikclamp connection system offers full modularity
- » 40 micron particle and high efficiency water removal (> 95%)
- » Shut off valve, and filter regulator with tamper resistance feature
- » Double safety lock on bowl

Technical Data

Medium:

Compressed air

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 246 psi (17 bar)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar)

Filter element:

40 µm

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Gauge:

Integrated as standard

Diaphragm Type:

Relieving

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)
Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl: +14 to +140°F (-10 to +60°C)
Metal bowl: -4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum
Body covers: ABS
Bonnet: Acetal
Valve: PP
Bowl: Transparent PC with PP guard or die cast zinc
Liquid level indicator lens (metal bowl): PA
Filter element: sintered PP
Bowl "o" - ring: Chloroprene
Elastomers: NBR



Technical data BL82 - standard models

Symbol	Port size PTF	Shutoff valve	Drain	Lubricator type	Bowl	Weight lb (kg)	Model *1)
	1/4	With	Manual	Microfog	Metal with level indicator	2.9 (1.3)	BL82-271A
	3/8	With	Manual	Microfog	Metal with level indicator	2.9 (1.3)	BL82-371A
	1/4	With	Auto	Microfog	Guarded polycarbonate	2.0 (0.9)	BL82-201A
	3/8	With	Auto	Microfog	Guarded polycarbonate	2.0 (0.9)	BL82-301A
	1/4	Without	Manual	Microfog	Metal with level indicator	2.2 (1.0)	BL82-275A
	3/8	Without	Manual	Microfog	Metal with level indicator	2.2 (1.0)	BL82-375A
	1/4	Without	Auto	Microfog	Guarded polycarbonate	1.4 (0.6)	BL82-205A
	3/8	Without	Auto	Microfog	Guarded polycarbonate	1.4 (0.6)	BL82-305A

*1) All models shown here are supplied with integrated gauge applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
1/4"	2
3/8"	3
Units	Substitute
Filter/Regulator w. auto drain, Micro fog lubricator, Polycarbonate bowls	0
Filter/Regulator w. auto drain, Oil fog lubricator, Polycarbonate bowls	1
Filter/Regulator w. manual drain, Micro fog lubricator, Polycarbonate bowls	2
Filter/Regulator w. manual drain, Oil fog lubricator, Polycarbonate bowls	3
Filter/Regulator w. auto drain, Micro fog lubricator, Metal bowls	5
Filter/Regulator w. auto drain, Oil fog lubricator, Metal bowls	6
Filter/Regulator w. manual drain, Micro fog lubricator, Metal bowls	7
Filter/Regulator w. manual drain, Oil fog lubricator, Metal bowls	8

BL82-★ ★ ★ ★

Thread form	Substitute
PTF	A
ISO G parallel (standard)	G
Accessories	Substitute
Shut-off valve & gauge & brackets	1
Gauge & bracket	5

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

B82G - General purpose filter/regulator

- » Port size: 1/4" and 3/8" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Push to lock adjusting knob with built in tamper resistant feature
- » 5 or 40 micron particle and high efficiency water removal (> 95%)

Technical data

Medium:

Compressed air only

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)

Metal bowl: 246 psi (17 bar)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar),

4 to 58 psi (0.3 to 4 bar),

2 to 246 psi (0.7 to 17 bar)

Gauge:

Integrated as standard

Gauge port 1/8" as option

Filter element:

5 µm & 40 µm

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Flow:

79 scfm (37 dm³/s) at port size 1/4",

79 scfm (37 dm³/s) at port size 3/8",

inlet pressure 145 psi (10 bar),

operating pressure 91 psi (6.3 bar)

and a Δp: 7.25 psi (0.5 bar) drop

from set. Filter element: 40 µm

Diaphragm Type:

Relieving

Automatic drain operating conditions (float operated):

Bowl pressure required to

close drain: > 5 psi (0.35 bar)

Bowl pressure required to

open drain: ≤ 2.9 psi (0.2 bar)

Minimum air flow required to

close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl:

+14 to +140°F (-10 to +60°C)

Metal bowl:

-4 to +149°F (-20 to +65°C)

Air supply must be dry enough

to avoid ice formation at

temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum

Body covers: ABS

Bonnet: Acetal/ Aluminum

Valve: PP

Bowl: Transparent PC with PP guard or

die cast zinc liquid level indicator lens

(metal bowl): PA

Filter element: sintered PP

Bowl 'o'- ring: Chloroprene

Elastomers: NBR



Technical data B82G

Symbol	Port size	Drain	Pressure range psi (bar)	Filter element (µm)	Bowl	Weight (kg)	Model *1)
	1/4	Auto	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-2AK-AP3-RMG
	3/8	Auto	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-3AK-AP3-RMG
	1/4	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-2AK-AD3-RMG
	3/8	Auto	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-3AK-AD3-RMG
	1/4	Manual	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-2AK-QP3-RMG
	3/8	Manual	4 to 145 (0.3 to 10)	40	Guarded polycarbonate	0.6 (0.3)	B82G-3AK-QP3-RMG
	1/4	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-2AK-QD3-RMG
	3/8	Manual	4 to 145 (0.3 to 10)	40	Metal with level indicator	1.1 (0.5)	B82G-3AK-QD3-RMG

*1) All models shown here are supplied with gauge port applicable for flow direction left to right.

With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

Option selector *1)

Port size	Substitute
1/4"	2
3/8"	3
Thread form	Substitute
PTF	A
ISO G parallel	G
Adjustment	Substitute
Knob	K
T-bar	T*2)
Drain	Substitute
Manual	Q
Auto drain	A
Bowl	Substitute
Metal with liquid indicator	D*2)
Transparent with guard	P

B82G-★ ★ ★ - ★ ★ ★ - R ★ ★

Gauge	Substitute
With integrated gauge	G
Without integrated gauge but with gauge port 1/8"	N
Pressure range *3)	Substitute
4 to 58 psi (0.3 to 4 bar)	F
4 to 145 psi (0.3 to 10 bar)	M
10 to 246 psi (0.7 to 17 bar)	S*2)
Element	Substitute
40 µm	3
5 µm	1

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator above or contact Norgren

*2) Units with 246 psi (17 bar) outlet pressure range are available only with the T-bar adjustment and metal bowl; therefore substitute T at the 7th position, D at the 9th position, and S at the 12th position. T-bar handle only available with 17 bar option.

*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

EXCELON® PLUS MODULAR SYSTEM

F82G - General purpose filter/regulator

- » Port size: 1/4" and 3/8" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Air purity classes in accordance to ISO8573-1: particles class 6 & 7 and liquid water class 8
- » 5 or 40 micron particle and high efficiency water removal (>95%)

Technical data

Medium:

Compressed air only

Maximum supply pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 246 psi (17 bar)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar),
4 to 58 psi (0.3 to 4 bar),
2 to 246 psi (0.7 to 17 bar)

Filter element:

5 µm & 40 µm

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Flow:

48 scfm (23 dm3/s) at port size 1/4",
58 scfm (27 dm3/s) at port size 3/8",
operating pressure 91 psi (6.3 bar)
and a Δp: 7.25 psi (0.5 bar) drop
from set. Filter element: 40 µm

Drain:

Manual or automatic

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)
Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)
Minimum air flow required to close drain: 2 scfm (1 dm3/s)

Ambient/Media temperature:

Polycarbonate bowl:
+14 to +140°F (-10 to +60°C)
Metal bowl:
-4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum
Body covers: ABS
Bowl: Transparent PC with PP guard or die cast zinc
Liquid level indicator lens (metal bowl): PA
Filter element: sintered PP
Bowl "o"- ring: Chloroprene
Elastomers: NBR



Technical data F82G

Symbol	Port size	Drain	Filter element (µm)	Bowl	Weight (kg)	Model *1)
	1/4	Auto	40	Guarded polycarbonate	0.48 (0.22)	F82G-2AN-AP3
	3/8	Auto	40	Guarded polycarbonate	0.48 (0.22)	F82G-3AN-AP3
	1/4	Auto	40	Metal with level indicator	0.90 (0.41)	F82G-2AN-AD3
	3/8	Auto	40	Metal with level indicator	0.90 (0.41)	F82G-3AN-AD3
	1/4	Manual	40	Guarded polycarbonate	0.44 (0.20)	F82G-2AN-QP3
	3/8	Manual	40	Guarded polycarbonate	0.44 (0.20)	F82G-3AN-QP3
	1/4	Manual	40	Metal with level indicator	0.88 (0.40)	F82G-2AN-QD3
	3/8	Manual	40	Metal with level indicator	0.88 (0.40)	F82G-3AN-QD3

Option selector

F82C-★ ★ N - ★ ★ ★

Port size	Substitute
1/4"	2
3/8"	3
Thread form	Substitute
PTF	A
ISO G	G
Drain	Substitute
Manual	Q
Auto	A

Element	Substitute
5 µm	1
40 µm	3
Bowl	Substitute
Transparent with guard	P
Metal with liquid indicator	D

➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

F82C - Oil removal filter

- » Port size: 1/4" and 3/8" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Service indicator standard
- » Air purity class in accordance with ISO 8573-1: Remaining oil aerosol to class 1*

*Tested in accordance with the methods laid out in ISO 12500-1 using an inlet oil aerosol concentration of 4mg/m³

Technical Data

Medium:

Compressed air

Maximum operating pressure:

Polycarbonate bowl: 145 psi (10 bar)

Metal bowl: 246 psi (17 bar)

Remaining oil content:

0.01 mg/m³ at +69°F (+21°C)

Particle removal: To 0.01 µm

Port size:

G3/8, G1/2, G3/4,

3/8 PTF, 1/2 PTF, 3/4 PTF

Drain:

Manual or automatic

Dry element flow:

operating pressure 91 psi (6.3 bar)
and a Δp: 7.25 psi (0.5 bar) drop
from set. 1/4" = 32 scfm (15.1 dm³/s).

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: 5 psi (> 0.35 bar)

Bowl pressure required to open drain: 2.9 psi (≤ 0.2 bar)

Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Ambient/Media temperature:

Polycarbonate bowl:
+14 ... +140°F (-10 ... +60°C)

Metal bowl:
-4 ... +149°F (-20 ... +65°C)

Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Note: Install an F82G filter with a 5 µm filter element upstream of the F82C filter for maximum service life.

Materials:

Body: Die cast aluminum

Body covers: ABS

Bowl: Transparent PC with

PP guard or die cast zinc

Liquid level indicator lens

(metal bowl): PA

Filter element:

Synthetic fiber & PE foam

Bowl "o"- ring: Chloroprene



Technical data F82C

Symbol	Port size	Drain	Bowl	Weight (kg)	Model *1)
	1/4	Auto	Guarded polycarbonate	0.55 (0.25)	F82C-2AD-APO
	3/8	Auto	Guarded polycarbonate	0.55 (0.25)	F82C-3AD-APO
	1/4	Auto	Metal with level indicator	0.97 (0.44)	F82C-2AD-ADO
	3/8	Auto	Metal with level indicator	0.97 (0.44)	F82C-3AD-ADO
	1/4	Manual	Guarded polycarbonate	0.55 (0.25)	F82C-2AD-QPO
	3/8	Manual	Guarded polycarbonate	0.55 (0.25)	F82C-3AD-QPO
	1/4	Manual	Metal with level indicator	0.99 (0.45)	F82C-2AD-QDO
	3/8	Manual	Metal with level indicator	0.97 (0.44)	F82C-3AD-QDO

Option selector

F82C-★ ★ D - ★ ★ O

Port size	Substitute
1/4"	2
3/8"	3
Thread form	Substitute
PTF	A
ISO G	G

Bowl	Substitute
Transparent with guard	P
Metal with liquid indicator	D
Drain	Substitute
Manual	Q
Auto drain	A



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

F82V - Oil vapor removal filter

- » Port size: 1/4" and 3/8" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Adsorbing type activated carbon element removes oil vapors and most hydrocarbon odors
- » Air purity class in accordance with ISO 8573-1: Remaining oil aerosol to class 0*

*Tested in accordance with the methods laid out in ISO 12500-2 using an inlet oil aerosol concentration of 0.018mg/m³

Technical Data

Medium:

Compressed air only

Maximum operating pressure:

Polycarbonate bowl: 145 psi (10 bar)

Metal bowl: 246 psi (17 bar)

Remaining oil content: 0.003 mg/m³ max. at +69°F (+21°C)

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Dry element flow:

40 scfm

Operating pressure:

91 psi (6.3 bar) and a Δp: 7.25 psi (0.5 bar) drop from set.

Ambient/Media temperature:

-4 ... +149°F (-20 ... +65°C)

Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Note: Install an F82C coalescing filter upstream of the F82V filter for maximum service life.

Materials:

Body: Die cast aluminum

Body covers: ABS

Bowl: Transparent PC with PP

guard or die cast zinc Bowl

"o"- ring: Chloroprene

Elastomers: NBR



Technical data F82V

Symbol	Port size	Drain	Filter element (µm)	Bowl	Weight (kg)	Model *1)
	1/4	Closed bowl	Vapor removal	Guarded polycarbonate	0.48 (0.21)	F82V-2AN-EPA
	3/8	Closed bowl	Vapor removal	Guarded polycarbonate	0.44 (0.20)	F82V-3AN-EPA
	1/4	Closed bowl	Vapor removal	Metal bowl - no sight glass	0.88 (0.40)	F82V-2AN-EDA
	3/8	Closed bowl	Vapor removal	Metal bowl - no sight glass	0.88 (0.40)	F82V-3AN-EDA

Option selector

F82V-★ ★ N - E ★ A

Port size	Substitute
1/4"	2
3/8"	3

Bowl	Substitute
Metal	D
Transparent with guard	P
Thread Form	Substitute
PTF	A
ISO G	G



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

R82G - Pressure Regulator

- » Port size: 1/4" and 3/8" (PTF/ISO G)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Push to lock adjusting knob with built in tamper resistant feature
- » Easy to read flush mounted integrated pressure gauge as standard

Technical data

Medium:

Compressed air only

Maximum supply pressure:

290 psi (20 bar)

Outlet pressure ranges:

4 to 145 psi (0.3 to 10 bar),
4 to 58 psi (0.3 to 4 bar),
2 to 246 psi (0.7 to 17 bar)

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Gauge:

Integrated as standard
Gauge port 1/8 as option

Diaphragm Type:

Relieving

Flow:

69 scfm (33 dm³/s) at port size 1/4",
66 scfm (31 dm³/s) at port size 3/8",
inlet pressure 145 psi (10 bar),
operating pressure 91 psi (6.3 bar) and
a Δp: 14.5 psi (1.0 bar) drop from set.

Ambient/Media temperature:

-4 ... +149°F (-20 ... +65°C)
Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminum
Body covers: ABS
Bonnet: POM/Aluminum
Valve: PP
Elastomers: NBR



Technical data R82G

Symbol	Port size (PTF)	Pressure range psi (bar)	Adjustment	Integrated gauge psi (bar)	Weight lb (kg)	Model *1)
	1/4	4 to 145 (0.3 to 10)	Knob	0 to 145 psi (0 to 10)	0.50 (0.23)	R82G-2AK RMG
	3/8	4 to 145 (0.3 to 10)	Knob	0 to 145 psi (0 to 10)	0.50 (0.23)	R82G-3AK-RMG

Option selector *1)

Flow	Substitute
General	G
Reverse Flow	R
Port size	Substitute
1/4"	2
3/8"	3
Thread form	Substitute
PTF	A
ISO G parallel	G
Adjustment	Substitute
Knob	K
T-bar	T*2)

R82★-★★★-R★★★

Gauge	Substitute
With (fitted integrated gauge)	G
Without integrated gauge but with gauge port 1/8"	N
Pressure range *3)	Substitute
4 to 58 psi (0.3 to 4 bar)	F
4 to 145 psi (0.3 to 10 bar)	M
10 to 247 psi (0.7 to 17 bar)	S*2)

*3) Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

*1) All models shown here are applicable for flow direction left to right. With flow direction right to left please use the online configurator www.norgren.com/air-preparation-configurator or contact Norgren

*2) Units with 247 psi outlet pressure range are available only with the T-bar adjustment; therefore substitute T at the 7th position and S at the 9th position. T-bar handle only available with 247 psi option.

➔ More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

L82M, L82C - Micro and oil fog lubricators

- » Port size: 1/4" and 3/8" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » Choice of two oil delivery systems
- » Double safety lock bowl

Technical Data

Medium:

Compressed air only

Maximum operating pressure:

Polycarbonate bowl: 145 psi (10 bar)
Metal bowl: 246 psi (17 bar)

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Operating pressure:

91 psi (6.3 bar) and a Δp: 7.25 psi (0.5 bar) drop from set.

Start point:

1 scfm (0.5 dm3/s) for Oil Fog
2.5 scfm (1.2 dm3/s) for Micro Fog

Flow:

L82C: 55 scfm (26 dm3/s) at port size 1/4"
L82C: 51 scfm (24 dm3/s) at port size 3/8"
L82M: 46 scfm (22 dm3/s) at port size 1/4"
L82M: 45 scfm (21 dm3/s) at port size 3/8"
operating pressure: 91 psi (6.3 bar) and a Δp: 7.25 psi (0.5 bar) drop from set.

Ambient/Media temperature:

Polycarbonate bowl: 14 to +140°F (-10 to +60°C)
Metal bowl: -4 to +149°F (-20 to +65°C)
Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C)

Materials:

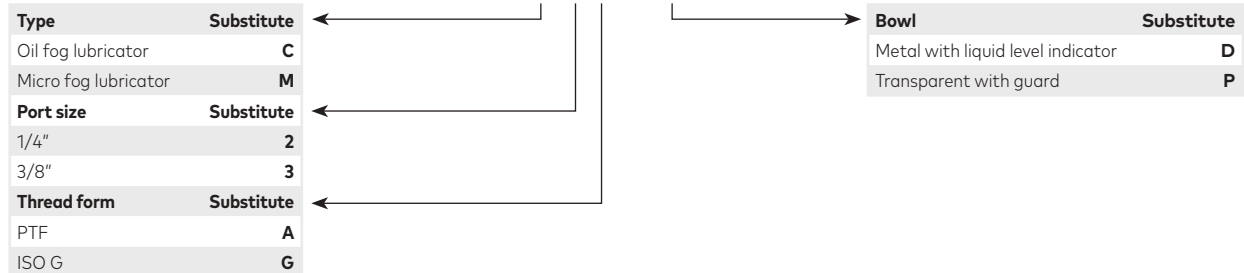
Body: Die cast aluminum
Body covers: ABS
Bowl: Transparent PC with PP guard or die cast zinc Liquid level indicator lens (metal bowl): PA
Sightdome: Transparent PA
Bowl "o"- ring: Chloroprene
Elastomers: NBR



Technical data L82 - standard models

Symbol	Port PTF	Lubricator type	Bowl	Weight lb (kg)	Model
	1/4	Micro fog	Guarded polycarbonate	0.48 (0.22)	L82M-2AP-EPN
	3/8	Micro fog	Guarded polycarbonate	0.48 (0.22)	L82M-3AP-EPN
	1/4	Micro fog	Metal with level indicator	0.88 (0.40)	L82M-2AP-EDN
	3/8	Micro fog	Metal with level indicator	0.88 (0.40)	L82M-3AP-EDN
	1/4	Oil fog	Guarded polycarbonate	0.48 (0.22)	L82C-2AP-EPN
	3/8	Oil fog	Guarded polycarbonate	0.48 (0.22)	L82C-3AP-EPN
	1/4	Oil fog	Metal with level indicator	0.88 (0.40)	L82C-2AP-EDN
	3/8	Oil fog	Metal with level indicator	0.88 (0.40)	L82C-3AP-EDN

Option selector



➔ More info and CAD available online at: norgren.com

EXCELON® PLUS MODULAR SYSTEM

T82T - 3/2 shut-off valve

- » Port size: 1/4" and 3/8" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » Lockable in closed position with padlock
- » 3/2 way function
- » Threaded exhaust port

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

246 psi (17 bar)

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Flow:

96 scfm (45 dm³/s) at port size 1/4",
86 scfm (41 dm³/s) at port size 3/8",
operating pressure 91 psi (6.3 bar)
and a Δp : 7.25 psi (0.5 bar) drop from set.
Exhaust flow: 3.26 scfm (1.54 dm³/s)

Ambient/Media temperature:

-4 ... +149°F (-20 ... +65°C)

Air supply must be dry enough
to avoid ice formation at
temperatures below +35°F (+2°C).

Materials:

Body: Die cast aluminium

Body covers: ABS

Elastomers: NBR

Valve: Brass



Technical data T82T

Symbol	Port size (PTF)	Function	Valve Type	Exhaust port forms	Weight lb (kg)	Model
	1/4	3/2	Ball valve	Exhaust port threaded PTF 1/4	0.44 (0.20)	T82T-2AA-B1N
	3/8	3/2	Ball valve	Exhaust port threaded PTF 1/4	0.44 (0.20)	T82T-3AA-B1N

Option selector

Function	Substitute
3/2	T

T82T-★ ★A - B1N

Thread Form	Substitute
PTF	A
ISO G	G
Port Size	Substitute
1/4"	2
3/8"	3



More info and CAD available online at:
norgren.com

EXCELON® PLUS MODULAR SYSTEM

P82F 3/2 Soft Start/Dump Valve

- » Port size: 1/4" and 3/8" (ISO G/PTF)
- » Excelon® Plus design allows in-line installation or modular installation with other Excelon® Plus products
- » High forward flow capacity
- » High flow dump facility
- » Variable Snap Adjustment
- » Fast Exhausting

Technical Data

Medium:

Compressed air only

Maximum supply pressure:

145 psi (10 bar)

Minimum operating pressure:

43 psi (3 bar)

Port size:

G1/4, G3/8, 1/4 PTF, 3/8 PTF

Flow:

45 scfm (21 dm3/s) at port size 1/4"
 Full flow P1 to P2 @ 91 psi
 (6.3 bar) inlet, with 7 psi
 (0.5 bar) pressure drop
 P2 to P3 = 38 scfm (18 dm3/s)

Ambient/Media temperature:

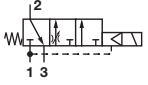
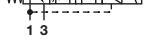
-4 ... +149°F (-20 ... +65°C)
 Air supply must be dry enough
 to avoid ice formation at
 temperatures below +35°F (+2°C).

Materials:

Body: Aluminum
 End Caps: Aluminum
 Body covers: ABS
 Elastomers: NBR
 Valve: Brass



Technical data P82F

Symbol	Port Size (PTF)	Function	Voltage	Exhaust Port (PTF)	Weight lbs (g)	Model
	1/4	3/2 Soft Start	24 VDC	1/4	0.98 (444)	P82F-2AT-PFA
	3/8	3/2 Soft Start	24 VDC	1/4	0.98 (444)	P82F-3AT-PFA

Option selector

Function	Substitute
3/2 Soft Start	F
Port Size	Substitute
1/4"	2
3/8"	3
Thread Form	Substitute
PTF A	A
ISO G	G

P82F-★ ★ T-P ★ A

Voltage	Substitute
24 VDC	F
115 VAC	A
220 VAC	B

➔ More info and CAD available online at: norgren.com

EXCELON[®] PLUS MODULAR SYSTEM

Accessories





3/8" High Flow, 1/2", & 3/4" Accessories

Part Number	Description	Product Image	Part Number	Description	Product Image
840014-51KIT	Quickclamp		840028-68KIT	Full flow porting block 3/4 NPT	
840014-52KIT	Quickclamp with bracket assembled		840028-69KIT	Full flow porting block 3/4 ISO G	
840068-51KIT	Neck Mount Bracket and Panel Nut		03377170000000000	Pressure switch interface block (18D pressure switch)	
840024-50KIT	Filter unit mounting bracket		840015-02KIT	Port Adaptors 3/8 NPT	
840048-89KIT	Panel Mounting Nut		840015-03KIT	Port Adaptors 1/2 NPT	
840073-01KIT	Integrated 10 bar gauge		840015-04KIT	Port Adaptors 3/4 NPT	
840073-02KIT	Integrated 20 bar gauge		840015-10KIT	Port Adaptors 3/8 ISO G	
840100-01KIT	Gauge adaptor kit - 1/8 NPT		840015-11KIT	Port Adaptors 1/2 ISO G	
840100-02KIT	Gauge adaptor kit - R 1/8		840015-12KIT	Port Adaptors 3/4 ISO G	
840016-50KIT	Pressure Sensing block 1/4 NPT		C/S2	1/4" NPT Porous plastic silencer	
840016-51KIT	Pressure Sensing block 1/4 ISO G		M/S2	1/4" ISO G Porous plastic silencer	
840028-50KIT	Full flow porting block 3/4 NPT		MS002A	Sintered Bronze Silencer	
840028-53KIT	Full flow porting block 3/4 ISO G		18-011-024	Quick Fill nipple	



EXCELON® PLUS MODULAR SYSTEM

Accessories



Maintenance/Service

Part Number	Description	Product Image
840038-50KIT	5 micron filter cartridge	
840038-51KIT	40 micron filter cartridge	
840044-50KIT	Coalescing Filter Element	
840041-50KIT	Vapor Removal Filter Element	
840055-51KIT	Lubricator sight dome kit (Oil-Fog)	
840055-50KIT	Lubricator sight dome kit (Micro-Fog)	
6000-61KIT	Auto drain kit with metal Nut - Imperial	
6000-60KIT	Auto drain kit with metal Nut - Metric	
FRLB84-KIT	R84 / B84 Elastomer Kit	

Spare Parts

Part Number	Description	Product Image
840025-50KIT	Filter Bowl (Guarded Poly bowl with manual drain)	
840025-51KIT	Filter Bowl (Guarded Poly bowl with auto drain 6 mm PIF)	
840025-52KIT	Filter/Lubricator Bowl (guarded poly bowl with drain Plug)	
840025-53KIT	Filter Bowl (Guarded Poly bowl with auto drain, 1/4 PIF)	
840003-50KIT	Filter Bowl (Metal with S/Glass & manual drain)	
840003-51KIT	Filter Bowl (Metal with S/Glass & auto drain, 6 mm PIF)	
840003-52KIT	Filter/Lubricator Bowl (Metal with S/Glass and drain Plug)	
840003-56KIT	Filter Bowl (Metal with S/Glass & auto drain, 1/4 PIF)	

Accessories

Part Number	Description	Product Image
840055-01KIT	Padlock	
840055-02KIT	Padlock lock out device	

Don't miss out on the opportunity to cross sell: Promote safety: Offer a "T" valve as a way to safely isolate the air. Silencers, padlocks and the lock-out device are a good way to add value. If Filters are already in your offer, bundle in spare elements, auto-drains and repair kits. With Regulators & Filter Regulators there always the opportunity to discuss Switches / Sensors, the 51D, and the 18D.

EXCELON® PLUS MODULAR SYSTEM

Accessories


1/4" & 3/8" Compact Accessories

Part Number	Description	Product Image	Part Number	Description	Product Image
820014-51KIT	Quickclamp		0523109000000000	Pressure switch interface block (18D pressure switch)	
820014-52KIT	Quickclamp with bracket assembled		840055-01KIT	Padlock	
820068-51KIT	Neck mount bracket and panel nut		840055-02KIT	Padlock lock out device	
820024-50KIT	Filter unit mounting bracket		820015-02KIT	Port Adaptors 1/4 PFT	
820048-89KIT	Panel mounting nut		820015-03KIT	Port Adaptors 3/8 PFT	
820073-01KIT	Integrated 10 bar gauge		820015-08KIT	Port Adaptors 1/4 ISO G	
820073-02KIT 820073-03KIT	Integrated 20 bar gauge Integrated 4 bar gauge		820015-09KIT	Port Adaptors 3/8 ISO G	
820100-01KIT	Gauge adaptor kit - 1/8 NPT		C/S2	1/4" NPT Porous plastic silencer	
820100-02KIT	Gauge adaptor kit - R 1/8		M/S2	1/4" ISO G Porous plastic silencer	
820016-50KIT	Pressure Sensing block 1/4 NPT		MS002A	Sintered bronze silencer	
820016-51KIT	Pressure sensing block 1/4 ISO G		6000-61KIT	Auto drain kit with metal nut - 1/4" PIF	
820028-50KIT	Full flow porting block 3/8 NPT		6000-60KIT	Auto drain kit with metal nut - 6mm PIF	
820028-53KIT	Full flow porting block 3/8 ISO G		FRLB82-KIT	FRLB Elastomer Kit	

EXCELON® PLUS MODULAR SYSTEM

Accessories

Maintenance/Service

Part Number	Description	Product Image
820044-50KIT	Coalescing filter element	
820041-50KIT	Vapor removal filter element	
820038-50KIT	Filter cartridges 5 micron	
820038-51KIT	Filter cartridges 40 micron	
840055-50KIT	Lubricator sight dome kit Micro fog (red)	
840055-51KIT	Lubricator sight dome kit Oil fog (green)	
820025-50KIT	Filter Bowl (Guarded Poly bowl with manual drain)	
820025-51KIT	Filter Bowl (Guarded Poly bowl with auto drain 6 mm PIF)	
820025-52KIT	Filter/Lubricator Bowl (guarded poly bowl with drain Plug)	
820025-53KIT	Filter Bowl (Guarded Poly bowl with auto drain, 1/4 PIF)	
820003-50KIT	Filter Bowl (Metal with S/Glass & manual drain)	
820003-51KIT	Filter Bowl (Metal with S/Glass & auto drain, 6 mm PIF)	
820003-52KIT	Filter/Lubricator Bowl (Metal with S/Glass and drain Plug)	
820003-56KIT	Filter Bowl (Metal with S/Glass & auto drain, 1/4 PIF)	

Don't miss out on the opportunity to cross sell: Promote safety: Offer a "T" valve as a way to safely isolate the air. Silencers, padlocks and the lock-out device are a good way to add value. If Filters are already in your offer, bundle in spare elements, auto-drains and repair kits. With Regulators & Filter Regulators there always the opportunity to discuss Switches / Sensors, the 51D, and the 18D.

MINIATURE FILTER/REGULATOR-LUBRICATOR

COMBINATION UNITS, 1/4" PTF

- » Compact design
- » Filter removes liquids and solid particles down to 5 µm
- » Push to lock adjusting knob
- » Micro-Fog lubricator provides air line lubrication to one or more air driven tools or other devices
- » Nearly constant oil density output with varying air flow

Technical Data

Fluid:

Compressed air

Maximum pressure:

150 psig (10 bar)

Operating temperature*:

0°F to 125°F (-20°C to 50°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Typical flow at 100 psig (7 bar)

inlet pressure, 90 psig (6.3 bar)

set pressure and a droop of 15

psig (1 bar) from set:

1/8" ports: 10 scfm (5 dm³/s)

1/4" ports: 14 scfm (7 dm³/s)

Drain connection:

1/8" male pipe

Filter/Regulator

Particle removal:

5 µm

Gauge ports:

1/8" PTF

Lubricator

Start point (i.e., minimum flow

required for lubricator operation):

0.5 scfm (0.24 dm³/s) at 90 psig

(6.3 bar) inlet pressure

Nominal bowl capacity:

1 fluid ounce (31 ml)

Materials:

Bodies: Zinc

Filter/Regulator bonnet: Acetal

Filter/Regulator valve seat: Acetal

Bowls: Polycarbonate

Lubricator sight-feed dome:

Transparent nylon

Filter element:













Sintered polypropylene

Elastomers: Nitrile



Models

Accessories

PTH Series Manual Drain Model No.	Auto Drain Model No.	Port size PTF	Gaugex	Outlet pressure range psig	Neck mounting bracket	Sight feed dome	Filter/ regulator service kit	Lubricator service kit
		1/4"	included	5 to 100				
PTH-200-M1AA	PTH-200-A1AA	1/4"	included	5 to 100	18-025-003	4055-50	3820-12	3795-03
		1/4"	not included	5 to 100				
PTH-201-M1AA	PTH-201-A1AA	1/4"	not included	5 to 100	18-025-003	4055-50	3820-12	3795-03

* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified.
Do not use these units to control pressures outside of the specified ranges

*Filter/regulator service kit contains slip ring, diaphragm, valve seat with o-ring, valve, valve spring, element, element gasket, and bowl o-ring

**Lubricator service kit contains sight-feed dome seal, cartridge o-ring, and bowl o-ring.



More info and CAD available online at:
norgren.com

MINIATURE GENERAL PURPOSE

FILTERS F07 1/8" PTF, 1/4" PTF

- » Direct ported filters with high water removal efficiency
- » High flow miniature unit
- » Transparent bowl option for 360° visibility

Technical Data

Fluid:
Compressed air

Maximum pressure:
Transparent bowl: 150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Operating temperature:*

Transparent bowl:
-30°F to 125°F
(-34°C to 50°C)

Metal bowl:
-30°F to 175°F
(-34°C to 80°C)

*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Particle removal:

5 µm filter element

Drain connection:

1/8" male pipe thread

Flow**

Model	SCFM
F07-100	19
F07-200	24

** Typical flow with 90 psig inlet pressure, 5 psig pressure drop.

Materials

Body: zinc
Transparent bowl: Polycarbonate
Metal bowl: Zinc (without sight glass)
Element: sintered polypropylene
Elastomers: CR & nitrile



Models

F07 Series Auto Drain Model No.	F07 Series Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Replacement 5 µm element kit
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F07-100-A1TA	F07-100-M1TA	1/8"	Transparent	5939-06	3652-17
F07-200-A1TA	F07-200-M1TA	1/4"	Transparent	5939-06	3652-17



F07-200-A1MA	F07-200-M1MA	1/4"	Metal	5939-06	3652-17
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Accessories

MINIATURE GENERAL PURPOSE

OIL REMOVAL (COALESCING) FILTER F39, 1/4" PTF

- » Compact design
- » High efficiency oil and particle removal

Technical Data

Fluid:
Compressed air

Maximum pressure:
Transparent bowl: 150 psig (10 bar)

Operating temperature:*
Transparent bowl:
-30°F to 125°F (-34°C to 50°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35°F).

Aerosol oil removal:
Down to 0.01 µm

Maximum remaining oil content of air leaving the filter:
0.01ppm at 70°F (21°C) with an inlet oil concentration of 17 ppm.

Drain connection:
1/8" male pipe thread

Automatic drain operation:

Spitter type drain operates momentarily when a rapid change in air flow occurs or when the supply pressure is reduced.

Flow**

Model	SCFM
F39 200	6.4

** Typical flow at 90 psig inlet pressure to maintain stated oil removal performance.

Materials

Body: Zinc
Transparent bowl: Polycarbonate
Element: Synthetic fiber and white polyester
Elastomers: CR & nitrile



Models

F39 Autodrain Model No.	F39 Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Service kit**
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F39-200-A0TA	F39-200-M0TA	1/4"	Transparent	5939-06	F39-KITOC
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** Kit includes: Element, element O-ring, bowl O-ring

MINIATURE GENERAL PURPOSE

Lubricators L07 1/8" PTF, 1/4" PTF

- » Micro-fog lubricators provide a fine mist for most general purpose pneumatic applications
- » Transparent bowl for 360° visibility

Technical Data

Fluid:

Compressed air
Maximum pressure
Transparent bowl:
150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Operating temperature*

Transparent bowl:
0°F to 125°F (-20°C to 50°C)
Metal bowl:
0°F to 175°F (-20°C to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Nominal bowl size:

1 fluid ounce (31 ml)
Drain connection:
Will fit 1/8-27 and
1/8-28 pipe thread

Flow**

Model	SCFM
L07 100	10
L07 200	14

** Approximate flow at 90 psig inlet pressure and 7 psig pressure drop. Start point (i.e. minimum flow required for lubricator operation): 0.5 scfm (0.24 dm³/s) at 90 psig (6.3 bar) inlet pressure








Materials

Body: Zinc
Transparent bowl:
Polycarbonate
Metal bowl: Zinc
Sight-feed dome:
Transparent nylon
Elastomers: CR & nitrile



Models

Accessories

L07 No Drain Model No.	L07 Manual Drain Model No.	Port size PTF	Bowl type	Neck mounting bracket with nut	Mounting nut only (plastic)	Mounting nut only (metal)	Sight feed dome	Service kit**
								
L07-100-MPGA	L07-100-MPAA	1/8"	Transparent	18-025-003	2962-89	2962-04	4055-50	3795-03
L07-200-MPGA	L07-200-MPAA	1/4"	Transparent	18-025-003	2962-89	2962-04	4055-50	3795-03

** Kit includes: O-ring, seal, bowl O-ring

→ More info and CAD available online at: norgren.com

MINIATURE GENERAL PURPOSE

Regulators R07 and R46 1/8" PTF, 1/4" PTF

- » R07 General purpose
- » Snap action knob locks pressure setting when pushed down
- » Standard relieving models allow reduction of outlet pressure even when the system is dead-ended
- » R46 Non-repairable
- » Wrench flats for easy installation
- » Relieving piston design allows reduction of downstream pressure when system is dead-ended
- » Choice of left to right or right to left flow

Technical Data

R07

Fluid: Compressed air

Maximum pressure:
300 psig (20 bar)

Operating temperature:
-34°F to 150°F (-35°C to 65°C)*

Flow**

Model	SCFM
R07 100	14
R07 200	15

* Air supply must be dry enough to avoid ice formation at temperatures below 2°C (35°F).
** Typical flow with 150 psig inlet pressure, 90 psig set pressure and a 15 psig droop from set.

R46

Fluid: Compressed air

Maximum pressure:
250 psig (17 bar)

Operating temperature*:
-30°F to 150°F
(-34°C to 65°C)







Flow**

Model	SCFM
R46	13

NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.





Models

R07 Series Model No.	Port size PTF	Outlet pressure adjustment range psig	Neck mounting bracket with nut	Mounting nut only (plastic)	Mounting nut only (metal)	Gauge psig	Service kit**
	1/8"	1 to 10					
R07-100-RGAA	1/8"	1 to 10	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-100-RNAA	1/8"	1 to 10	18-025-003	2962-89	2962-04	18-015-214	3407-22
R07-100-RGEA	1/8"	5 to 50	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-100-RNEA	1/8"	5 to 50	18-025-003	2962-89	2962-04	18-015-211	3407-22
R07-100-RGKA	1/8"	5 to 100	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-100-RNKA	1/8"	5 to 100	18-025-003	2962-89	2962-04	18-015-212	3407-22
R07-200-RGAA	1/4"	1 to 10	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-200-RNAA	1/4"	1 to 10	18-025-003	2962-89	2962-04	18-015-214	3407-22
R07-200-RGEA	1/4"	5 to 50	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-200-RNEA	1/4"	5 to 50	18-025-003	2962-89	2962-04	18-015-211	3407-22
R07-200-RGKA	1/4"	5 to 100	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-200-RNKA	1/4"	5 to 100	18-025-003	2962-89	2962-04	18-015-212	3407-22
R07-200-RGLA	1/4"	5 to 125	18-025-003	2962-89	2962-04	Gauge included	3407-22
R07-200-RNLA	1/4"	5 to 125	18-025-003	2962-89	2962-04	18-015-212	3407-22

** Kit includes: Slip ring, diaphragm, standard valve seat, O-ring, valve and spring

Models

R46 Series Model No.	Port size PTF	Outlet pressure adjustment range psig	Flow direction	Gauge psig 0 to 160 psig
	1/4"	5 to 125	Left to Right	
R46-200-RNLA	1/4"	5 to 125	Left to Right	18-015-212
R46-202-RNLA	1/4"	5 to 125	Right to Left	18-015-212

→ More info and CAD available online at: norgren.com

MINIATURE GENERAL PURPOSE

Filter/regulator B07 1/8 PTF, 1/4 PTF

- » Filter-regulators for all general purpose pneumatic applications
- » High performance design provides high flow with minimum pressure drop
- » Non-rising adjusting knob has snap-action lock
- » Transparent bowl option for 360° visibility

Technical Data

Fluid:
Compressed air

Maximum inlet pressure:
Transparent bowl:
150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Maximum outlet pressure:
100 psig (7 bar)

Outlet pressure range:
5 to 100 psig (0.3 to 7 bar)

Operating temperature*:
Transparent bowl:
-30°F to 125°F (-34°C to 50°C)
Metal bowl:
-30°F to 150°F (-34°C to 65°C)
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Particle removal
5 µm

Flow**









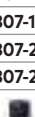
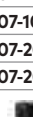





























Model	SCFM
B07 10	13
B07 20	14

** Typical flow with 100 psig inlet pressure, 90 psig set pressure and a 15 psig droop from set.
NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Materials
Body: zinc
Bonnet: acetal
Valve seat: acetal
Transparent bowl: polycarbonate
Metal bowl: zinc
Element: sintered polypropylene
Elastomers: nitrile



Models

B07 Auto Drain Model No.	B07 Manual Drain Model No.	Port size PTF	Bowl type	Neck mounting bracket with nut	Mounting nut only (plastic)	Mounting nut only (metal)	Gauge 0 to 160 psig	Replacement element 5 µm kit	Service kit**
		1/8"	Transparent						
B07-101-A1KA	B07-101-M1KA	1/8"	Transparent	18-025-003	2962-89	2962-04	18-015-212	3652-17	3820-12
		1/8"	Transparent				Gauge included	3652-17	3820-12
B07-102-A1KA	B07-102-M1KA	1/8"	Transparent	18-025-003	2962-89	2962-04	Gauge included	3652-17	3820-12
		1/4"	Transparent						
B07-201-A1KA	B07-201-M1KA	1/4"	Transparent	18-025-003	2962-89	2962-04	18-015-212	3652-17	3820-12
		1/4"	Transparent				Gauge included	3652-17	3820-12
B07-202-A1KA	B07-202-M1KA	1/4"	Transparent	18-025-003	2962-89	2962-04	Gauge included	3652-17	3820-12
		1/4"	Metal						
B07-233-A1KA	B07-233-M1KA	1/4"	Metal	18-025-003	2962-89	2962-04	18-015-212	3652-17	3820-12
		1/4"	Metal				Gauge included	3652-17	3820-12
B07-234-A1KA	B07-234-M1KA	1/4"	Metal	18-025-003	2962-89	2962-04	Gauge included	3652-17	3820-12

** Service kit contains slip ring, diaphragm, valve seat with o-ring, valve, valve spring, element, element gasket, and bowl o-ring

➔ More info and CAD available online at:
norgren.com

MINIATURE GENERAL PURPOSE

V07 Pressure relief valve – Diaphragm type 1/8" PTF, 1/4" PTF

- » Protect compressed air systems from over-pressurization

Technical Data

Fluid:
Compressed air

Maximum pressure:
300 psig (21 bar)

Operating temperature:
-30°F to 150°F (-34°C to 65°C) *
*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).
NOTE: Relief valves can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.






Gauge ports:
1/8" PTF

Materials:
Body: Zinc
Bonnet: Acetal
Valve seat: Acetal
Elastomers: Nitrile



Models

Accessories

V07 Series Model No.	Port size PTF	Pressure adjustment range (psig)	Neck mounting bracket with nut	Silencer	Gauge	Service kit*	Mounting nut (metal)
							
V07-100-NNKA	1/8"	5 to 100	18-025-003	MB001A	18-015-212	V07-KIT	2962-04
V07-200-NNEA	1/4"	5 to 50	18-023-003	MB002A	18-015-211	V07-KIT	2962-04
V07-200-NNKA	1/4"	5 to 100	18-025-003	MB002A	18-015-212	V07-KIT	2962-04

* Kit includes: Diaphragm, valve seat, O-ring



More info and CAD available online at:
norgren.com

MAINLINE P8A COMBINATION UNITS

17 Series Filter-Regulator-Lubricator (micro-fog)

- » 40 µm filter element
- » Balanced regulator valve minimizes effect of changes in inlet pressure on outlet pressure
- » Low torque, non-rising regulator pressure adjusting knob
- » All around (360°) visibility of the micro-fog lubricator sight-feed dome simplifies installation and adjustment
- » Micro-fog lubricator flow sensor provides a nearly constant oil/air ratio over a wide range of air flows

Technical Data

Fluid:

Compressed air

Maximum pressure:

250 psig (17 bar)

Operating temperature*:

0°F to 175°F (-20°C to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Start point (minimum flow required for lubricator operation):

8 scfm (3.8 dm³/s) at 90 psig (6.3 bar) inlet pressure

Regulator gauge ports:

1/4" PTF

Nominal bowl size:

1 quart US (1 liter)

Manual drain connection:

Will fit 1/8-27 and 1/8-28 pipe thread

Automatic drain connection:

Will fit 1/8-27 and 1/8-28 pipe thread.

Materials

Bodies, bowls, regulator bonnet:

Aluminum

Bowl sight glass: Pyrex

Filter element: Sintered bronze

Regulator bottom plug: Acetal

Regulator valve: Aluminum and nylon

Lubricator sight-feed dome:

Transparent nylon







Elastomers: CR and nitrile

NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.



Model

Accessories

P8A Series Auto Drain Model No.	P8A Series Manual Drain Model No.	Port size PTF	Outlet pressure range psig	Replacement element 40 µm	Filter service kit	Regulator service kit	Lubricator service kit
		3/4"	5 to 125				
P8A-660-A3DA	P8A-660-M3DA	3/4"	5 to 125	5311-03	5578-05	5578-02	5771-02
P8A-860-A3DA	P8A-860-M3DA	1"	5 to 125	5311-03	5578-05	5578-02	5771-02



More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

B17 Filter/Regulator 1/4" PTF with PTF main ports R1/4" with ISO G

- » High flow regulator, 3/4" to 1-1/2" ports
- » Accurate and quick response to changes in flow demand and line pressure variations
- » Screw-on bowl reduces maintenance time
- » Balanced valve minimizes effect of changes in inlet pressure on outlet pressure
- » Protects air operated devices by removing liquid and solid contaminants

Technical Data

Fluid:

Compressed air, neutral gases
NOTE: Contact technical support for use with other media.

Maximum pressure:

250 psig (17 bar)

Operating temperature*

-30° to 175°F (-34° to 80°C)

*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Air quality:

Within ISO 8573-1, Class 6 and Class 7 (particulates)

Nominal bowl size:

1 quart (1 liter)

1 pint (0.5 liter)

Manual drain connection:

1/8-27 and 1/8-28 female pipe thread.

Automatic drain connection:

1/8-27 and 1/8-28 male pipe thread. Flexible tube with 3/16" (5 mm) minimum I.D. can be connected to the automatic drain. Drain may fail to operate if the tube I.D. is less than 3/16" (5 mm). Avoid restrictions in the tube.

Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: Greater than 5 psig (0.3 bar)

Bowl pressure required to open drain: Less than 3 psig (0.2 bar)

Minimum air flow required to close drain: 2 scfm (1 dm³/s)

Manual operation: Depress pin inside drain outlet to drain bowl.

Filter element, Quart Bowl:

Sintered bronze: 5 µm

Sintered bronze: 40 µm

Filter element, Pint Bowl:

5 µm Polypropylene

40 µm Polypropylene

Gauge ports:

1/4" PTF with PTF main ports R1/4" with ISO G, and BSPP main ports

Materials:

Body: aluminum

Bowl: aluminum

Bowl sight glass: Pyrex

Elastomers: chloroprene, nitrile





Bonnet: aluminum

Valve: aluminum



Models

Accessories

B17 Series Model No.	Port size PTF	Wall mounting bracket	Replacement elements	Service kit*
				
B17-697-A3LA	3/4"	6212-50	5 µm: 5311-01 40 µm: 5311-03	5579-01
B17-897-A3LA	1"	6212-50	5 µm: 5311-01 40 µm: 5311-03	5579-01
B17-A97-A3LA	1-1/4"	6212-51	5 µm: 5311-01 40 µm: 5311-03	5579-01
B17-B97-A3LA	1-1/2"	6212-51	5 µm: 5311-01 40 µm: 5311-03	5579-01

* Kit includes: Diaphragm, O-rings, valve, valve spring



More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

FILTERS F17 3/4" PTF to 1-1/2" PTF port sizes

- » Protects air operated devices by removing liquid and solid contaminants
- » Service life indicator options available

Technical Data

Fluid:

Compressed air

Maximum pressure:

250 psig (17 bar)

Operating temperature:*

-30°F to 175°F (-34°C to 80°C)

*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Particle removal:

5 or 40 µm filter element

Nominal bowl size:

1 quart (1 liter)

Manual drain connection:

Will fit 1/8-27 and 1/8-28 female pipe thread.

Automatic drain connection:

Will fit 1/8-27 and 1/8-28 female pipe thread.

Flow**

Model **SCFM**

F17-600 325

F17-800 425

F17-A00 425

F17-B00 425

** Typical flow with a 40 µm element at 90 psig inlet pressure and 5 psig pressure drop.

Materials

Body: Aluminum

Bowl: Aluminum






Bowl sight glass: Pyrex

Elastomers: CR and nitrile



Models

Accessories

F17 Series Auto Drain Model No.	F17 Series Manual Drain Model No.	Port size PTF	Element*	Wall mounting bracket	Replacement element 40 µm	Service kit**
		3/4"	5 µm			
F17-600-A1DA	F17-600-M1DA	3/4"	5 µm	6212-50	5311-01	5578-05
F17-600-A3DA	F17-600-M3DA	3/4"	40 µm	6212-50	5311-03	5578-05
F17-800-A1DA	F17-800-M1DA	1"	5 µm	6212-50	5311-01	5578-05
F17-800-A3DA	F17-800-M3DA	1"	40 µm	6212-50	5311-03	5578-05
F17-A00-A1DA	F17-A00-M1DA	1-1/4"	5 µm	6212-51	5311-01	5578-05
F17-A00-A3DA	F17-A00-M3DA	1-1/4"	40 µm	6212-51	5311-03	5578-05
F17-B00-A1DA	F17-B00-M1DA	1-1/2"	5 µm	6212-51	5311-01	5578-05
F17-B00-A3DA	F17-B00-M3DA	1-1/2"	40 µm	6212-51	5311-03	5578-05

* Filter elements are sintered bronze

** Kit includes: Bowl O-ring, drain gasket, element gasket



More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

Oil removal (Coalescing) filter F46 3/4" PTF, 1" PTF, 1-1/4" PTF

- » High efficiency oil and particle removal
- » Standard service indicator turns from green to red when the filter element needs to be replaced

NOTE: Install an F17 filter with a 5 µm filter element upstream of the F46 filter for maximum service life.

Technical Data

Fluid:
Compressed air

Maximum pressure:
250 psig (17 bar)

Operating temperature:*
-30°F to 150°F (-34°C to 65°C)
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Particle removal:
Down to 0.01 µm

Maximum remaining oil content in outlet air:
0.01ppm at 70°F (20°C) with an inlet oil concentration of 12 ppm.

Nominal bowl size:
1 quart US (1 liter)

Automatic drain connection:
Will fit 1/8-27 and 1/8-28 male pipe thread. - Flexible tube with 3/16" (5mm) minimum I.D. can be connected to the automatic drain. Drain may fail to operate if the tube I.D. is less than 3/16" (5mm). Avoid restrictions in the tube.

Flow**

Model	SCFM
F46-601	90
F46-801	125
F46-A01	125





** Typical flow for oil-saturated element at 90 psig inlet pressure to maintain stated oil removal performance.

Materials
Body: Aluminum
Bowl: Aluminum
Bowl sight glass: Pyrex
Elastomers: CR and nitrile
Filter element: Synthetic fiber and white polyester



Models

Accessories

F46 Series Auto Drain Model No.	Port size PTF	Wall mounting bracket	Service Life Indicator	Service kit*
	3/4"			
F46-601-A0DA	3/4"	6212-50	5797-50	5351-04
F46-801-A0DA	1"	6212-50	5797-50	5351-04
F46-A01-A0DA	1-1/4"	6212-51	5797-50	5351-04

* Kit includes: Coalescing element, element O-ring, bowl O-ring, drain gasket



More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

Regulators R17 3/4" PTF, 1" PTF, 1-1/4" PTF, 1-1/2" PTF

- » Accurate and quick response to changes in flow demand and line pressure variations
- » Balanced valve minimizes effect of changes in inlet pressure on outlet pressure
- » Standard relieving models allow reduction of outlet pressure even when the system is dead-ended
- » Full flow gauge ports
- » Low torque, non-rising adjusting knob
- » Integral locking device on knob adjustment

Technical Data

Fluid:
Compressed air

Maximum pressure:
300 psig (20 bar)

Operating temperature:
-30°F to 175°F (-34°C to 80°C)*
* Air supply must be dry enough to avoid ice formation at temperatures 35°F (2°C).

Gauge ports:
1/4" PTF with PTF main ports

Materials

Body: Aluminum
Bonnet: Aluminum
Bottom plug: Acetal
Valve: Aluminum and nylon
Elastomers: Nitrile



Models

Accessories

R17 Series Model No. Knob adjustment	T-Handle adjustment	Port size PTF	Outlet pressure adjustment range psig	Neck mount bracket with nut	Panel mount nut	Tamper evident cover and seal wire	Gauge 0 to 160 psig	Service Kit*
		3/4"	5 to 125					
R17-600-RGLA	R17-601-RGLA	3/4"	5 to 125	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-600-RNLA	R17-601-RNLA	3/4"	5 to 125	5570-04	5226-97	4355-51	18-015-209	5578-02
R17-800-RGLA	R17-801-RGLA	1"	5 to 125	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-800-RNLA	R17-801-RNLA	1"	5 to 125	5570-04	5226-97	4355-51	18-015-209	5578-02
R17-800-RGSA	R17-801-RGSA	1"	10 to 250	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-A00-RNLA	-	1-1/4"	5 to 125	5570-04	5226-97	4355-51	18-015-209	5578-02
R17-A00-RGLA	R17-A01-RGLA	1-1/4"	5 to 125	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-A00-RGSA	-	1-1/4"	10 to 250	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-B00-RNLA	-	1-1/2"	5 to 125	5570-04	5226-97	4355-51	18-015-209	5578-02
R17-B00-RGLA	R17-B01-RGLA	1-1/2"	5 to 125	5570-04	5226-97	4355-51	Gauge included	5578-02
R17-B00-RGSA	R17-B01-RGSA	1-1/2"	10 to 250	5570-04	5226-97	4355-51	Gauge included	5578-02

* Kit includes: Diaphragm, O-rings, valve, valve spring

→ More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

Lubricators L17 3/4" PTF to 1-1/2" PTF

- » Screw-on bowl reduces maintenance time
- » 360° visible dome
- » Sight glass to view lubricant level
- » Mist or oil droplet lubricating options

Technical Data

Fluid:
Compressed air

Maximum pressure:
250 psig (17 bar)

Operating temperature*:
0°F to 175°F (-20°C to 80°C)
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Start point (minimum flow required for lubricator operation):
8 scfm (3.8 dm³/s) at 90 psig (6.3 bar) inlet pressure

Nominal reservoir size
1 quart US (1 liter)

Manual drain connection:
Fits 1/8-27 and 1/8-28 pipe thread

Flow**

Model	SCFM
L17-600	160
L17-800	275
L17-A00	275
L17-B00	275

** Typical flow with 90 psig inlet pressure, and a pressure drop of 5 psig.
NOTE: Models listed must not be located downstream of frequently cycling directional control valves.






Materials

Body: Aluminum
Reservoir: Aluminum
Reservoir sight glass: Pyrex
Sight-feed dome
Standard: Transparent nylon
Elastomers: CR and nitrile



Models

Accessories

L17 Series Model No.	Port size PTF	Lubrication type	Wall mounting bracket	Sight feed dome*	Fill plug	Service kit**
						
L17-600-MPDA	3/4"	Micro-Fog	6212-50	4055-50	5301-51	5771-02
L17-600-OPDA	3/4"	Oil Fog	6212-50	4055-51	5301-51	5771-02
L17-800-MPDA	1"	Micro-Fog	6212-50	4055-50	5301-51	5771-02
L17-800-OPDA	1"	Oil Fog	6212-50	4055-51	5301-51	5771-02
L17-A00-MPDA	1-1/4"	Micro-Fog	6212-51	4055-50	5301-51	5771-02
L17-A00-OPDA	1-1/4"	Oil Fog	6212-51	4055-51	5301-51	5771-02
L17-B00-MPDA	1-1/2"	Micro-Fog	6212-51	4055-50	5301-51	5771-02
L17-B00-OPDA	1-1/2"	Oil Fog	6212-51	4055-51	5301-51	5771-02

*Micro-fog sight dome shown ** Kit includes: O-rings, seals, gaskets



More info and CAD available online at:
norgren.com

MAINLINE GENERAL PURPOSE

Filters F18 1-1/2" PTF, 2" PTF

- » Direct ported filter with high water removal efficiency
- » High flow with minimal pressure drop
- » Highly visible prismatic liquid level indicator lens

Technical Data

Fluid:

Compressed air

Maximum pressure:

250 psig (17 bar)

Operating temperature*:

-30°F to 175°F (-34°C to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Particle removal:

40 µm filter element

Flow**

Model **SCFM**

F18 1400

** Typical flow with a 40 µm element at 90 psig inlet pressure and 5 psig pressure drop.

Materials

Body: Aluminum

Intermediate body: Aluminum

Bowl: Aluminum




Metal bowl liquid level indicator: Transparent nylon

Filter element: Sintered bronze

Elastomers: CR and nitrile



Models

F18 Series Auto Drain Model No.	F18 Series Manual Drain Model No.	Port size PTF	Element	Service kit*
		1-1/2"		
F18-B00-A3DA	F18-B00-M3DA	1-1/2"	5882-13 (40 µm)	5945-50
F18-C00-A3DA	F18-C00-M3DA	2"	5882-13 (40 µm)	5945-50

* Kit includes: Seat and seal

Accessories

MAINLINE GENERAL PURPOSE

Filters F47 1-1/2" PTF, 2" PTF

- » Port size: 1 1/2" & 2" (ISO G, PTF)
- » High efficiency oil and particle removal
- » Standard service life indicator turns from green to red when the filter element needs to be replaced

Technical Data

Medium:

Compressed air only

Max operating pressure:

250 psi (17 bar)

Particle removal:

0.01 µm

Remaining oil content:

0.01mg/m3 maximum

Port size:

1 1/2" or 2"

Drain:

Automatic or manual Automatic drain operating conditions (float operated):

Bowl pressure required to close drain: > 5 psi (0.35 bar)

Bowl pressure required to open drain: ≤ 2.9 psi (0.2 bar)

Minimum air flow required to close drain: 0.2 scfm (0.1 dm³/s)

Manual operation: depress pin inside drain outlet to drain bowl.

Ambient/Media temperature:

-30 ... 176 °F (-34 ... 80°C)

Air supply must be dry enough to avoid ice formation at temperatures below 2°C (+35 °F).

Note: Install an F18 filter with 5 µm filter element upstream of the F47 filter for maximum service life.

Materials:

Body, intermediate body and bowl: Aluminum

Liquid level indicator:

Transparent PA

Element:

Synthetic fiber & PU foam

Elastomers: CR & NBR

Internal parts: Acetal


Spring: Stainless steel

Elastomers: NBR



Models

Accessories

F47 Series Auto Drain Model No.	Port size	Element kit
	1 1/2"	3203-02
F47-B01-AODA	1 1/2"	3203-02
F47-C01-AODA	2"	3203-02

* Kit includes: Seat and seal

➔ More info and CAD available online at: norgren.com

MAINLINE GENERAL PURPOSE

Pilot Operated Regulators R18 1-1/2" PTF, 2" PTF

- » The R18 remote pilot operated regulator can be installed at any point in the compressed air system – pilot regulator can be installed in the most convenient location
- » The R18 with conventional integral pilot enables easy pressure adjustment at the regulator
- » Balanced valve minimizes effect of changes in inlet pressure on outlet pressure
- » Constant bleed feature in pilot regulator provides quick response and minimum dead-band
- » Exceptionally high relief flow

Technical Data

Fluid:
Compressed air

Inlet pressure range:
10 to 450 psig (0.7 to 31 bar)

Operating temperature:
0°F to 175°F (-34°C to 80°C)

Flow**

Model	SCFM
R18	2000

** Typical flow with 100 psig inlet pressure, 90 psig set pressure and a 15 psig droop from set. NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.




Feedback Pilot Regulator WARNING

The feedback line must sense the pilot operated regulator outlet pressure and must be connected before turning on the air supply. If the feedback line is not connected, the pilot operated regulator outlet pressure will rapidly increase to the inlet pressure when the adjusting knob on the pilot regulator is turned clockwise.





NOTE: Do not use the R41 feedback pilot regulator to control outlet pressures at or less than 100 psig (7 bar). Use the 11-104 feedback pilot regulator at those pressures. Feedback pilots are designed for applications that require superior pressure regulation under changing flow conditions where changes in flow demand are not sudden or cyclic.



Models

R18 Series Remote Pilot Model No.	Pilot port size PTF	Adjustment method	Operation	Gauge 0 to 160 psig	Service kit*
					
R18-B00-RNXA	1-1/2"	Remote Pilot	Relieving	18-015-209	5945-40
R18-C00-RNXA	2"	Remote Pilot	Relieving	18-015-209	5945-40

Accessories

R18 Series Integral Pilot Model No. Without gauge	Model No. With gauge	Pilot port size PTF	Outlet pressure PSIG	Adjustment method	Operation	Gauge 0 to 160 psig	Replacement Pilot Regulator	Service kit*
								
R18-B05-RNLA	R18-B05-RGLA	1-1/2"	5 to 125	Integral Pilot	Relieving	18-015-209	R40-205-BNLA	5945-40
R18-C05-RNLA	R18-C05-RGLA	2"	5 to 125	Integral Pilot	Relieving	18-015-209	R40-205-BNLA	5945-40

* Kit includes: Screen, and all O-rings



More info and CAD available online at:
norgren.com

SPECIAL PURPOSE

"MICRO TROL" HIGH FLOW PRESSURE REGULATOR R24 1/4" PTF to 1" PTF

- » Exceptionally high flow and relief flow characteristics
- » Easy to adjust even at high output pressures
- » Balanced valve minimizes effect of variations in inlet pressure on outlet pressure
- » Panel mounted facility

Technical Data

Fluid:

Compressed air

Maximum inlet pressure:

300 psig (20 bar)*

*For best performance, inlet pressure should be at least 10 psig (0.7 bar) greater than the desired regulated pressure, but must not exceed the specified maximum.

Operating temperature:

0°F to 175°F (-20°C to 80°C)**

** Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Maximum bleed rate at 50 psig (3.5 bar) outlet pressure:

0.031 scfm (0.016 dm³/s) †

†Maximum bleed rate occurs under dead-end (no flow) conditions.

Flow**

Model	SCFM
R24-400	200
R24-A00	700

** Typical flow with 150 psig inlet pressure, 90 psig set pressure and 15 psig droop from set.

Materials

Body, top cap: Zinc
Main valve, adjusting screw: Brass
Pilot valve, relief valve: Acetal
Elastomers: Nitrile
Bottom Plug: Acetal








Air Pilot

Manual






Feedback Pilot Regulator Warning

The feedback line must sense the pilot operated regulator outlet pressure and must be connected before turning on the air supply. If the feedback line is not connected, the pilot operated regulator outlet pressure will rapidly increase to the inlet pressure when the adjusting knob on the pilot regulator is turned clockwise.

Models

R24 Pilot operated Series Model No.	Port size PTF	Outlet pressure psig	Adjustment	Neck mount bracket	Gauge adapter	Gauge 0 to 160 psig	Service kit*
	1/4"	-	Air Pilot				
R24-201-RNXA	1/4"	-	Air Pilot	18-999-412	NA	18-015-209	5952-54
R24-301-RNXA	3/8"	-	Air Pilot	18-999-412	5950-01	18-015-209	5952-54
R24-401-RNXA	1/2"	-	Air Pilot	18-999-412	2339-04	18-015-209	5952-54
R24-601-RNXA	3/4"	-	Air Pilot	18-999-412	2339-04	18-015-209	5952-55
R24-801-RNXA	1"	-	Air Pilot	18-999-412	2339-04	18-015-209	5952-55

Accessories

R24 Series Model No.	Port size PTF	Outlet pressure psig	Adjustment	Neck mount bracket	Gauge adapter	Gauge 0 to 160 psig	Service kit*
	1/4"	10 to 125	Manual - Knob				
R24-200-RNLA	1/4"	10 to 125	Manual - Knob	18-999-412	NA	18-015-209	5292-52
R24-200-RGLA**	1/4"	10 to 125	Manual - Knob	18-999-412	NA	18-015-209	5292-52
R24-300-RNLA	3/8"	10 to 125	Manual - Knob	18-999-412	5950-01	18-015-209	5292-52
R24-300-RGLA**	3/8"	10 to 125	Manual - Knob	18-999-412	5950-01	18-015-209	5292-52
R24-400-RNLA	1/2"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-52
R24-400-RGLA**	1/2"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-52
R24-600-RNLA	3/4"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-53
R24-600-RGLA**	3/4"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-53
R24-800-RNLA	1"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-53
R24-800-RGLA**	1"	10 to 125	Manual - Knob	18-999-412	2339-04	18-015-209	5292-53

* Kit includes: Seals, main valve, spring

** Gauge included

➔ More info and CAD available online at:
norgren.com

PRECISION REGULATOR

11-002 1/4", 3/8", 1/2" PTF

- » Large diaphragm provides accurate and quick response to changing flow demands and line pressure
- » Floating valve pin provides positive valve seating
- » Balanced valve minimizes effect of variations in inlet pressure on outlet pressure
- » Standard relieving models allow reduction of downstream pressure when the system is dead-ended

Technical Data

Fluid:
Compressed air

Maximum inlet pressure:
400 psig (28 bar)

Operating temperature*:
-30°F to 175°F (-34°C to 80°C)
*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Gauge ports
1/8" PTF

Flow**

Model	SCFM
11-002-013	60
11-002-019	60
11-002-037	60
11-002-043	60
11-002-061	200
11-002-067	200


**Typical flow with 150 psig (10 bar) inlet pressure, 90 psig set pressure and 15 psig droop from set.
NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Materials

Body: Zinc
Bonnet: Aluminum
Valve: Brass and nitrile
Elastomers: Nitrile
Bottom plug
1/4" and 3/8" Ports: Brass
1/2" ports: Glass filled nylon



Models

11-002 Model No.	11-002 Model No.: Threaded bonnet for panel mounting, and hand wheel adjustment	Port Size PTF	Operation	Outlet pressure adjustment range psig	Gauge 0 to 160 psig	Service Kit*
						
11-002-013	11-002-013-2A	1/4"	Relieving	5 to 125	18-015-212	529-03
11-002-019	-	1/4"	Relieving	5 to 125	Gauge included	529-03
11-002-037	11-002-037-2A	3/8"	Relieving	5 to 125	18-015-212	529-03
11-002-043	-	3/8"	Relieving	5 to 125	Gauge included	529-03
11-002-061	11-002-061-2A	1/2"	Relieving	5 to 125	18-015-212	535-03
11-002-067	-	1/2"	Relieving	5 to 125	Gauge included	535-03
11-002-071		1/2"	Relieving	10 to 250	Gauge included	535-03

* Kit includes: Diaphragm, valve, valve spring, O-rings

Accessories



➔ More info and CAD available online at: norgren.com

SPECIAL PURPOSE

PILOT OPERATED REGULATORS 11-008, 11-042 1/2" PTF" to 1-1/4" PTF

- » Can be installed at any point in the compressed air system – pilot regulator can be installed in the most convenient location
- » Can be used with conventional or feedback pilot regulator
- » Feedback pilot regulator senses downstream pressure and automatically adjusts pilot operated regulator outlet pressure

Technical Data

Fluid:
Compressed air

Inlet pressure range:*
10 to 400 psig (0.7 to 27.6 bar)
*For best performance, inlet pressure should be at least 10 psig (0.7 bar) greater than the desired regulated pressure, but must not exceed the specified maximum.

Operating temperature:
0°F to 175°F (-20°C to 80°C)**
**Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Flow* Model	SCFM
11-008-130	70
11-008-009	110
11-008-110	180
11-042-003	120
11-042-007	300
11-042-008	300
11-042-009	300

Materials
Body: Zinc
Bonnet: Aluminum
Valve: Brass
Elastomers: Nitrile



11-008







11-042

Feedback Pilot Regulator Warning





The feedback line must sense the pilot operated regulator outlet pressure and must be connected before turning on the air supply. If the feedback line is not connected, the pilot operated regulator outlet pressure will rapidly increase to the inlet pressure when the adjusting knob on the pilot regulator is turned clockwise.

Models

11-008 Series Constant bleed Model No.	Port size PTF	Operation	Wall mounting bracket	Gauge 0 to 160 psig	Service kit*
					
11-008-130	1/2"	Relieving	18-001-003	18-015-212	695-01
11-008-009	3/4"	Relieving	18-001-027	18-015-212	696-01
11-008-110	1"	Relieving	18-001-027	18-015-212	696-01
11-008-165	1"	Nonrelieving	18-001-027	18-015-212	696-03

* Kit includes: Diaphragm, valve, O-rings

Accessories

11-042 Series Model No.	Port size PTF	Operation	Gauge port reduction to 1/4" bushing	Gauge 0 to 160 psig	Service kit*
					
11-042-003	1/2"	Relieving	2339-04	18-015-209	4158-01
11-042-007	3/4"	Relieving	2339-04	18-015-209	4158-02
11-042-008	1"	Relieving	2339-04	18-015-209	4158-02
11-042-009	1-1/4"	Relieving	2339-04	18-015-209	4158-02

* Kit includes: Screen, diaphragm, O-rings

➔ More info and CAD available online at:
norgren.com

PILOT REGULATORS

Conventional pilot regulator R40, 1/4" PTF

- » Pilot regulators are used to control the outlet pressure of a pilot operated regulator (ordered separately)
- » Conventional pilot regulator provides good pressure regulation, rapid response to changing flow demands, and excellent stability.
- » Constant bleed feature provides maximum sensitivity to system changes

Technical Data

Fluid:
Compressed air

Inlet pressure range:
10 to 450 psig
(0.7 to 31 bar) maximum

Operating temperature:
0°F to 175°F (-20°C to 80°C)**
** Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Maximum bleed rate at 50 psig (3.5 bar) outlet pressure:
0.25 scfm (0.12 dm³/s)[†]

[†]Maximum bleed rate occurs under dead-end (no flow) conditions.

Pilot ports:
1/4" PTF

Flow**
Model **SCFM**
R40 6.4






**Typical flow with 100 psig inlet pressure, 90 psig set pressure and 15 psig droop from set.

Materials
Body, bonnet: Aluminum
Valve: PTFE
Elastomers: Nitrile



R40

Models

R40 and R41 Series Model No.	Type	Port size PTF	Outlet pressure adjustment range psig	Wall mounting bracket	Mounting Nut (plastic)	Mounting Nut (metal)	Service kit*
	Conventional Pilot	1/4"	10 to 250				
R40-200-BNSA	Conventional Pilot	1/4"	10 to 250	5203-06	5191-89	5191-88	5945-41

NOTE: Do not use the R41 feedback pilot regulator to control outlet pressures at or less than 100 psig (7 bar). Use the 11-104 feedback pilot regulator at those pressures.
* Kit includes: Diaphragm, valve, valve spring, guide bushing, filter screen, all O-rings

SPECIAL PURPOSE

Pilot regulators 11-104 1/4" PTF

- » Feedback pilot regulators give more sensitive control and quicker reaction to downstream pressure changes.

Technical Data

Fluid:
Compressed air

Inlet pressure range:
10 psig (0.7 bar) to 400 psig
(27.6 bar) maximum

Operating temperature:
0°F to 175°F (-20°C to 80°C) *
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).




Maximum bleed rate at 50 psig (3.5 bar) outlet pressure:
0.25 scfm (0.12 dm³/s)[†]

[†]Maximum bleed rate occurs under dead-end (no flow) conditions.

Gauge ports:
1/8" PTF



Models

11-104 Feedback Pilot Regulator Series Model No.	Port size PTF	Outlet pressure adjustment range psig	Operation	Mounting option	Bracket	Service Kit*
	1/4"	5 to 105	Relieving	Panel/Bracket		
11-104-001	1/4"	5 to 105	Relieving	Panel/Bracket	18-001-005	1970-11
11-104-002	1/4"	50 to 250	Relieving	Panel/Bracket	18-001-005	1970-11

* Kit includes: Diaphragm, valve pit, valve springs, valve seat, valve ball, and all O-rings.

PRECISION INSTRUMENT

Pressure regulator 11-018 1/4" PTF

- » Fast response
- » Minimum overshoot during flow changes
- » Constant bleed feature provides maximum sensitivity to system changes
- » Relieving feature allows reduction of downstream pressure when the system is dead-ended

Technical Data

Fluid:

Compressed air
Note: 5 micron prefiltration and oil-free air required.

Inlet pressure range*

Low Pressure Models:
8 to 150 psig (0.55 to 10.3 bar)
High Pressure Models:
10 to 200 psig (0.7 to 13.8 bar)
* Inlet pressure must be at least 7 psig (0.5 bar) greater than the adjusted outlet pressure for proper operation.

Operating temperature**:

32°F to 160°F (0°C to 70°C)
** Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Repeatability

Low Pressure Models: 0.02 psig (0.001 bar) for flow change; 0.05 psig (0.004 bar) when turning supply off and on.
High Pressure Models: 0.08 psig (0.006 bar) for flow change; 0.16 psig (0.011 bar) when turning supply off and on.

Gauge ports:

1/4" PTF

Constant bleed feature:

Under dead-end conditions, a small, constant bleed of pilot air will escape thru the relief passage in the bottom plug. This will be accompanied by a slight residual outlet pressure of 1 to 4 inches H₂O (2.5 to 10 millibar).

Flow*

Model	SCFM
11-018	12

* 11-018-146, and 11-018-100: Typical flow with 100 psig (7 bar) inlet pressure, 60 psig (4.1 bar) set pressure and 0.125 psig (0.009 bar) droop from set.


** 11-018-110: Typical flow with 200 psig (14 bar) inlet pressure, 60 psig (4.1 bar) set pressure and 0.250 psig (0.017 bar) droop from set.

Materials

Body and bonnet: Zinc
Main valve: Polycarbonate
Main valve seat: PTFE
Pilot valve: Stainless steel
Pilot valve seat: Aluminum
Main diaphragm: Nitrile
Pilot diaphragm
Low pressure models: 302 SS
High pressure models: Nitrile
Bottom plug: Brass
Elastomers: Nitrile, CR, polyurethane



Models

11-018 Model No.	Port Size PTF	Outlet pressure adjustment range* psig	Operation	Service Kit**
				
11-018-146 (low pressure)	1/4"	0.4 to 10	Relieving	2787-01
11-018-100 (low pressure)	1/4"	1.0 to 60	Relieving	2787-01
11-018-110 (high pressure)	1/4"	3 to 150	Relieving	2787-02

Accessories



* Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

** O-rings, seals, pilot diaphragm and spring, main diaphragm, main valve and seat, diffuser screen, constant bleed orifice and orifice filter.

→ More info and CAD available online at:
norgren.com

STAINLESS STEEL FILTER/REGULATOR

IFR

- » Model IFR (instrument filter regulator)
- » Filter / regulator combination
- » High flow capability
- » Max inlet pressure 20 bar (290 psi)
- » Maintains set pressure with increasing flow
- » Fully venting
- » Reliable and long life, ideal for one time installation

Technical Data

Media:

Air
Filter with manual drain:
40 - 50 µm - stainless steel

Relief port:

2 mm drilled hole

Maximum inlet pressure:

20 bar (290 psi)

Outlet pressure range:

0.5 - 10 bar (7 - 145 psi)

Temperature ratings:

Standard =
Media (min/max -30/90°C
(-22/194°F))
Ambient (min/max -30/90°C
(-22/194°F))

Process connections:

IFR3 - 1/4" NPT
IFR4 - 1/2" NPT

Weight:

IFR3 - 1.8 kg
IFR4 - 2.2 kg

ATEX classification:


Exc - complies with EN13463
for non-electrical equipment

Materials

Valve body - stainless steel - 316L
Top & bottom covers - stainless steel - 316
Valve trim materials - 316L stainless steel
O-rings & seals - nitrile (NBR)
Diaphragm - nitrile (NBR)
Seat & adjustment springs - stainless steel



Models

Part number	Outlet pressure psi (bar)	Drain type	Port size NPT	Seat/seal materials	Gauge	Filter element
 YR2ACA1H1BS040	7 to 145 (0.5 to 10)	Manual	1/4	NBR	304/316SS dry, bar & psi	40 to 50 µm
YR2ACA3H1BS040	7 to 145 (0.5 to 10)	Manual	1/2	NBR	304/316SS dry, bar & psi	40 to 50 µm
YR2AAA3H1BS040	7 to 145 (0.5 to 10)	Automatic	1/2	NBR	304/316SS dry, bar & psi	40 to 50 µm



More info and CAD available online at:
norgren.com

STAINLESS STEEL GENERAL PURPOSE

FILTER/REGULATOR B38 1/2" PTF

- » Designed for use in corrosive environments
- » Metallic parts meet NACE Standard MR-01-75*
- » Meets certain requirements of Military Specifications**

*National Association of Corrosion Engineers (NACE) MR-01-75 defines requirements for sulphide stress cracking resistant materials used in well-head and other corrosive environments.

** Meets certain requirements of MIL-S-901C (Navy) 15 Jan 1963; Military Specifications Shock Test H.I. (High Impact); Shipboard Machinery, Equipment and Systems and MIL-STD-167-1 (Ships) Military Standard Mechanical Vibrations of Shipboard Equipment.

Technical Data

Fluid:
Compressed air

Maximum pressure:
Manual drain: 450 psig (31 bar)
Automatic drain: 250 psig (17 bar)

Operating temperature:
-40° to 175°F (-40° to 80°C) *
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Particle removal:
5 µm filter element

Flow**
Model **SCFM**
B38 106

** Typical flow with 175 psig inlet pressure, 115 psig set pressure and 15 psig droop from set.

Materials
Body: Stainless steel
Bonnet: Stainless steel
Bowl: Stainless steel
Adjusting screw: Stainless steel
Elements: High density polyethylene
Elastomers: Nitrile



Models

B38 Model No.	Automatic drain	Port Size PTF	Outlet pressure adj. range psig	Operation	Drain	Element	Mounting bracket and nut	Panel mounting nut	Gauge 0 to 160 psig	Hand-wheel	Element Kit	Service Kit*
B38-440-MILA	B38-440-A1LA	1/2"	4 to 125	Relieving	Manual	5 µm	18-001-973	5988-02	18-015-917	74630-04	2787-43	2787-41



* Kit includes: Element, seals, and screws



More info and CAD available online at:
norgren.com

STAINLESS STEEL GENERAL PURPOSE

Filters, Regulators, Lubricators F22, R22, L22 – 1/2" NPTF

» Materials meet NACE* recommendations (MR-0175, 2002 revision)

» Metal bowls with sightglass

* National Association of Corrosion Engineers – recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
250 psig (17 bar) (F22, L22)
300 psig (20 bar) (R22)

Gauge ports:
1/4" PTF (R22)

Pressure range:
R22: 5 to 150 psig
(0.4 to 10 bar)

Operation:
R22: Relieving
L22: Oil-fog

Start Point:
L22: 3 scfm at 90 psig inlet pressure (1.7 dm³/s at 6.3 bar)

Ambient temperature:*
0°F to 175°F
(-20°C to +80°C)

*Consult our Technical Service for use below 35°F (+2°C)

F22 particle removal:
25 µm

Flow Model SCFM
F22** 98
R22† 106
L22†† 102







**Typical flow with 25 µm element at 90 psig inlet pressure, and 5 psig pressure drop.

† Typical flow with 150 psig inlet pressure, 90 psig set pressure, and a 15 psig droop from set.

†† Typical flow with 90 psig inlet pressure and 7 psig pressure drop.








Models

F22 Auto Drain Model No.	F22 Manual Drain Model No.	Port Size	Wall mounting bracket	Element	Auto drain service kit*	Manual drain service kit*
		1/2" PTF				
F22-400-A2DA	F22-400-M2DA		18-001-962	6317-02	F22-100A	F22-100M
	F22-607-M2DS**		18-001-962	6317-02	F22-100A	F22-100M






* Kit includes: O-rings, gaskets, specified filter element, drain strainer and cap

** 3/4-16 UNF-2B port threads

R22 Auto Drain Model No.	Adjusting screw	Port Size	Operation	Wall mounting bracket	Neck mounting bracket	Gauge 0 to 160 psig	Service Kit*
	T-handle	1/2" PTF	Relieving				
R22-401-RNMA	Handwheel			18-001-962	18-001-959	18-015-917	R22-100R
R22-607-RNMS**	Handwheel		Relieving	18-001-962	18-001-959	18-015-917	R22-100R

* Kit includes: Diaphragm assembly, O-ring, valve, valve spring

** 3/4-16 UNF-2B port threads

L22 Manual Model No.	Port Size	Wall mounting bracket	Sight feed dome	Element	Service Kit*
	1/2" PTF				
L22-405-OPDA		18-001-962	6336-50	6317-02	L22-100
L22-607-OPDS**		18-001-962	6336-50	6317-02	L22-100

* Kit includes: Seals, check valve, ball and spring, sight dome, filter plug assemblies

** 3/4-16 UNF-2B port threads

➔ More info and CAD available online at: norgren.com

STAINLESS STEEL GENERAL PURPOSE

REGULATORS AND FILTER/REGULATOR R05, B05 – 1/4" PTF

- » Metallic parts meet NACE* recommendations
- » Miniature corrosion resistant design
- » Adjusting knob has snap-action lock
- » Particularly suitable for marine, petro-chemical, food processing, medical, dental and similar applications
- » Panel mounting facility

* National Association of Corrosion Engineers - recognised oil-field recommendation for resistance to sulphide stress cracking common in well-head and other corrosive environments.

Technical Data

Medium:
Compressed air only

Maximum inlet pressure:
300 psig (20 bar)

Ambient temperature:
-30°F to 150°F
(-34°C to +66°C)*

*Consult our Technical Service for use below 35°F (+2°C)

Gauge ports:
1/8" PTF







B05 Particle removal:
5 µm

Flow Model SCFM**
B05 and R05** 15

** Typical flow with 150 psig inlet pressure, 90 psig set pressure, and a 15 psig droop from set.








Models

B05 Auto Drain Model No.	B05 Manual Drain Model No.	Port Size	Outlet pressure adjustment range psig	Wall mounting bracket	Mounting nut	Gauge** 0 to 150 psig	Element	Service Kit*
		1/4" PTF	5 to 125					
B05-233-A1LA	B05-233-M1LA	1/4" PTF	5 to 125	18-025-003	2962-89	18-015-844	5726-04	3820-08
	B05-238-M1LA**	1/4" PTF	5 to 125	18-025-003	2962-89	18-015-844	5726-04	3820-08

* Kit includes: Diaphragm, seals, O-rings, valve

** stainless steel bonnet and manual drain

Models

R05 Auto Drain Model No.	Port size	Outlet pressure adjustment range psig	Operation	Wall mounting bracket	Mounting nut	Gauge** 0 to 150 psig	Service Kit*
							
R05-200-RNLA	1/4" PTF	5 to 125	Relieving	18-025-003	2962-89	18-015-844	3407-71
R05-200-NNLA	1/4" PTF	5 to 125	Non-relieving	18-025-003	2962-89	18-015-844	-
R05-232-RNLA†	1/4" PTF	5 to 125	Relieving	18-025-003	2962-89	18-015-844	-

* Kit includes: Slip ring, diaphragm, valve seat with seal, valve, valve spring

** Not NACE standard

† stainless steel bonnet

➔ More info and CAD available online at: norgren.com

PRESSURE REGULATOR

WATER AND COMPRESSED AIR SERVICE 11-044 1/4" Tube connection

- » Non-relieving models.
- » Acetal plastic, corrosion resistant construction
- » Low torque, non-rising adjusting knob.
- » Designed for use with deionized water and potable water systems. Plastic (not assembly) is NSF approved. All elastomers are CFR 21 FDA food and water contact compliant. Non-relieving models only

Technical Data

Fluid:

Water and compressed air

Maximum pressure:

250 psig (17 bar)

Operating temperature:

Water service:

35° to 150°F (2° to 66°C)

Air service:

-30° to 150°F (-34° to 66°C)*

*When used in air service, air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Port connections:

1/4" OD tube (brass nut and plastic ferrule supplied)

Recommended tubing:

1/4" soft PVC or Polyethylene tubing. Avoid aluminum, copper, and hard plastic tubing.

Typical flow

Compressed air service at 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set: 3.0 scfm (1.4 dm³/s)

Typical flow

Water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set: 0.7 U.S. gpm (2.65 liters per minute)

Materials

Body: Acetal

Bonnet: Acetal

Valve: Stainless steel with EPDM seal (CFR21 FDA food and water contact compliant)





Valve seat: Acetal

Diaphragm: Stainless steel

and nitrile (CFR21 FDA food and water contact compliant)



Models

11-044 Series Model No.	Port Connection	Outlet pressure adjustment range* psig	Neck mounting bracket	Mounting nut	Repair kit
	1/4" tube nut and ferrule	1 to 10			
11-044-001	1/4" tube nut and ferrule	1 to 10	18-025-003	2962-89	3407-59
11-044-003	1/4" tube nut and ferrule	5 to 100	18-025-003	2962-89	3407-59

* Outlet pressure can be adjusted to pressures in excess, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

** Kit includes: Slip ring, valve seat, valve, valve seal, and diaphragm

Accessories

➔ More info and CAD available online at: norgren.com

WATER/AIR REGULATOR

MINIATURE BRASS RO6 1/8", 1/4" PTF

- » Compact design
- » Brass body with choice of plastic or brass bonnet
- » Brass bonnet equipped with pressure adjusting screw
- » Non-relieving models for water and air service
- » Relieving products are only to be used in compressed air applications.

Technical Data

Fluid:

Water and compressed air

Maximum pressure:

400 psig (27 bar)

Operating temperature

Water service:
35° to 150°F (2° to 65°C)

Air service:

-30° to 150°F (-34° to 65°C) *

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Typical flow

For water service at 100 psig (7 bar) inlet pressure, 60 psig (4 bar) set pressure and a droop of 15 psig (1 bar) from set: 1.3 gpm (4.9 lpm)

Typical flow

For compressed air service at 100 psig (7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set: 12 scfm (5.7 dm³/s)

Gauge ports:

1/8" PTF

Materials

Body: Brass

Bonnet:

Standard: Acetal resin

Optional: Brass

Valve: Brass/nitrile







Valve seat: Acetal resin

Elastomers: Nitrile



Models

Accessories

RO6 Series Model No.	Port size	Outlet pressure adjustment range PSIG (bar)	Media	Bonnet Material	Neck mounting vbracket	Mounting nut	Service Kit*
							
RO6-121-NNEA	1/8" PTF	5 to 50 (0.3 to 3.5)	water and compressed Air	Plastic	18-025-003	2962-89	3407-17
RO6-221-NNEA	1/4" PTF	5 to 50 (0.3 to 3.5)	water and compressed Air	Plastic	18-025-003	2962-89	3407-17
RO6-221-NNKA	1/4" PTF	5 to 100 (0.3 to 7)	water and compressed Air	Plastic	18-025-003	2962-89	3407-17
RO6-221-NNLA	1/4" PTF	5 to 125 (0.3 to 8.6)	water and compressed Air	Plastic	18-025-003	2962-89	3407-17
RO6-221-RNKA	1/4" PTF	5 to 100 (0.3 to 7)	compressed Air	Plastic	18-025-003	2962-89	3407-18
							
RO6-222-RNKA	1/4" PTF	5 to 100 (0.3 to 7)	Compressed Air	Brass	18-001-021	616-01	3407-18

* Kit includes: Diaphragm, slip ring, standard valve seat with O-ring, valve spring.



More info and CAD available online at:
norgren.com

WATER REGULATORS

R91 1/4" PTF

- » Use with deionized water and potable water systems
- » NSF/ANSI Standard 61 certified
- » Non relieving models only

Technical Data

Fluid:
Potable water,
deionized water

Maximum pressure:
150 psig (10 bar)

Operating temperature:
Water service:
35° to 125°F
(2° to 52°C)





Gauge ports:
1/8 PTF with
PTF main ports

Flow*
6.6 (lpm)
* Typical flow with 100 psig (7 bar) inlet
pressure, 60 psig (6.3 bar) set pressure
and 15 psig (1 bar) droop from set.

Materials
Body and bonnet: Acetal
Valve: Stainless steel/
food grade EPDM
Valve seat: Acetal
Valve seat o-ring:
Food grade EPDM
Diaphragm: Acetal/nylon
inserted nitrile, food grade
Gauge port plugs: Nylon



Models

R91 Series Model No.	Port size	Outlet pressure adjustment range psig	Wall mounting bracket and panel nut	Mounting nut	Service kit*
	1/4" PTF	5 to 50			
R91W-2AK-NEN	1/4" PTF	5 to 50	18-025-003	2962-89	3407-93
R91W-2AK-NLN	1/4" PTF	5 to 125	18-025-003	2962-89	3407-93

* Kit includes: Diaphragm, slip ring, valve seat with O-ring, valve and valve spring.



More info and CAD available online at:
norgren.com

WATER REGULATORS

1/4" to 1" PTF

- » Non-relieving models
- » Brass body
- » Full flow gauge ports can be used as auxiliary outlets

Technical Data

Fluid:
Water and compressed air

Maximum pressure:
400 psig (27 bar)

Operating temperature:

Water service:
35° to 200°F (2° to 93°C)

Air service:
-30° to 200°F (-34° to 93°C)*

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

R43 Gauge ports
1/4" PTF

11-009 Gauge ports
1/8" PTF

Flow**

Model	GPM
R43 201**	6
R43 301	6
R43 406	9
11 009*	27.5

**Typical flow with 150 psig (10 bar) inlet pressure, 90 psig (6.3 bar) set pressure and 15 psig (1 bar) droop from set.

* Typical flow with 100 psig (6.9 bar) inlet pressure, 60 psig (4 bar) set pressure and 15 psig (1 bar) droop from set.




NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Materials:

Body: Brass
Bonnet: Aluminum
Valve: Brass
Bottom plug: Brass
Elastomers: Nitrile





Models

R43 Series Model No.	Port connection	Outlet pressure adjustment range psig	Mounting bracket with nut	Service kit**
	1/4" PTF	5 to 125		
R43-201-NNLA	1/4" PTF	5 to 125	5203-05	5298-03
R43-301-NNLA	3/8" PTF	5 to 125	5203-05	5298-03
R43-406-NNEA	1/2" PTF	5 to 50	5203-05	5298-10
R43-406-NNLA	1/2" PTF	5 to 125	5203-05	5298-10
R43-406-NGLA	1/2" PTF	5 to 125	5203-05	5298-10

** Kit includes: Diaphragm, O-rings, valve, valve spring

Models

11 009 Series Model No.	11-009 with gauge	Port connection	Outlet pressure adjustment range psig	Service kit**
		3/4" PTF	5 to 125	2436-03
11-009-065	11-009-073	3/4" PTF	5 to 125	2436-03
11-009-081	11-009-089	1" PTF	5 to 125	2436-03

** Kit includes: Diaphragm, valve seat, valve pin, valve pin gasket, valve, valve spring, O-rings



More info and CAD available online at:
norgren.com

U.L. LISTED INDUSTRIAL SERVICE REGULATORS

For use with compressed air and inert gases

- » Underwriters Laboratories, Inc. listed (file number SA1089) for use with air, argon, carbon dioxide, krypton, neon, nitrogen, xenon. For use with other gases, including oxygen, consult Norgren.
- » Relieving models allow reduction of outlet pressure even when the system is dead-ended

Technical Data

R44
Fluid: Compressed air, carbon dioxide, inert gases

Maximum pressure: 250 psig (17 bar)

Operating temperature: -30° to 150°F (-34° to 66°C) *
 * Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

R83
Fluid: Air, argon, carbon dioxide, krypton, neon, nitrogen, and xenon. For use with other gases, including oxygen, consult Norgren.
 NOTE: Do not use the R83 regulator in beverage dispensing applications. Other Norgren regulators (R81 for soft drink, R82 for beer, R84 for carbonators) are available for use in dispensing systems.

Maximum pressure: 3000 psig (207 bar)

Operating temperature: -30° to 140°F (-34° to 60°C) *
 * Fluid must be dry enough to avoid ice formation at temperatures below 35°F (2°C).




Flow Model	SCFM
R44**	10
R83†	11

** R44 flow at 100 psig inlet, 90 psig set, and 15 psig droop

NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.






Models

R44 Series Model No.	Port size	Outlet pressure adjustment range psig	Wall mounting bracket	Service kit*
	1/4" PTF	5 to 50		
R44-233-RNEA	1/4" PTF	5 to 50	18-001-021	3407-02
R44-233-RNKA	1/4" PTF	5 to 125	18-001-021	3407-02

* Kit includes: Slip ring, diaphragm, standard valve seat with seal, valve, valve spring.

Models

R83 Series Model No.	Port size	Outlet pressure adjustment range* psig	Gauge	Valve cartridge*
	1/4" PTF	5 to 125		
R83-200-RNLA	1/4" PTF	5 to 125	18-015-085	5086-55

* Kit includes: Valve cartridge and seal

➔ More info and CAD available online at: norgren.com

RELIEF VALVES

Miniature brass body tank relief valve 16-004 1/8" PTF, 1/4" PTF

- » Used in low-volume air tanks to retard excessive pressure buildup
- » Constructed of brass and stainless steel for compressed air and water service

Technical Data

Fluid:
Compressed air

Maximum pressure:
300 psig (20 bar)

Operating temperature*:
-30° to 200°F (-34° to 93°C)


*Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Repeatability:
± 20% of relief pressure setting

Materials:
Body, cap, spring rest: Brass
Valve: Brass and nitrile
Regulating spring: Stainless steel



Models

16-004 Series Port size	5 to 25 psig* Model No.	25 to 50 psig* Model No.	25 to 75 psig* Model No.	70 to 150 psig* Model No.	125 to 300 psig* Model No.	Weight lbs (kg)
						
1/8" PTF	16-004-030	16-004-001	16-004-002	16-004-003	16-004-004	0.11 (0.05)
1/4" PTF	16-004-031	16-004-009	16-004-010	16-004-011	16-004-012	0.11 (0.05)

* Pressure relief ranges. Relief valves can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

HIGH PRESSURE NEEDLE VALVES

1/4" port size

- » Bar stock machined brass body
- » Tapered brass needle
- » Adjustable stem packing nut with PTFE seal
- » Retained adjustment stem
- » Metal to metal sealing surfaces
- » Accurate metering of fluids
- » 3,000 psig inlet pressure

Technical Data

Specifications
Fluid: Compressed air, water, steam, and other non-flammable, inert gases and liquids

Maximum Differential Pressure:
15 psid (1 bar d)
Ports: 1/8 or 1/4 NPT
Orifice Size: Ø0.187" (5 mm)
CV: 0.401


Max. Inlet Pressure:
3,000 psig (207 bar)

Temperature Range:
-40° to 500°F (-40° to 260°C)

Materials of Construction
Body, packing nut, needle, knob: Brass
Stem Seal: PTFE



Models

17-001 Series Part Number	Inlet port thread	Outlet port thread
		
17-001-107	Male	Male
17-001-110	Female	Female
17-001-114	Male	Female

→ More info and CAD available online at:
norgren.com

DRIP LEG DRAIN

17-016 1/2" NPTF

- » Automatically expels liquids from the piping network
- » Automatic drain valve opens when system is unpressurized, allowing water to escape by gravity
- » Automatic drain valve is float operated when system is pressurized
- » Install at low points and at far end of piping network

Technical Data

Fluid:

Compressed air

Maximum pressure

Transparent bowl:
150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Operating temperature*

Transparent bowl:
0° to 125°F (-20° to 50°C)
Metal bowl:
0° to 175°F (-20° to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Automatic drain connection:

1/8" pipe thread


Automatic drain operating conditions (float operated):

Bowl pressure required to close drain:
Greater than 5 psig (0.3 bar)
Minimum air flow thru drain required to close drain: 2 scfm (1 dm³/s).
Bowl pressure required to open drain:
Less than 3 psig (0.2 bar)

Manual operation: Depress pin inside drain outlet to drain bowl
NOTE: Flexible tube with 0.125" (3mm) minimum I.D. can be connected to the drain. Avoid restrictions in the tube.



Models

17-016 Series Model No.	Port size	Bowl type	Bowl size	Weight lbs (kg)
				
17-016-104	1/2" PTF	Transparent	1/3 pint (0.16 liter)	0.8 (0.38)
17-016-107	1/2" PTF	Metal with sight glass	1/3 pint (0.16 liter)	1.3 (0.59)

Materials

Body: Zinc

Bowl

Transparent: Polycarbonate

Metal: Zinc

Drain mechanism:

Acetal, Nitrile, stainless steel

Metal bowl liquid level

indicator lens: Pyrex

Elastomers: CR

GAUGES

18-015 1/8" and 1/4" NPTF

- » Monitor pressures in compressed air systems for optimum efficiency
- » Back or bottom connection



Center back connection

Scale Range			Connection and Face Diameter			
Outer scale psig	Middle scale bar	Inner scale Mpa	1/8" NPT 1.5" dia.	1/8" NPT 2" dia.	1/4" NPT 2" dia.	R1/4 2" dia.
0 to 30	0 to 2	0 to 0.2	18-015-214	18-015-201	18-015-207	-
0 to 60	0 to 4	0 to 0.4	18-015-211	18-015-202	18-015-208	18-015-266
0 to 100	0 to 7	0 to 0.7	-	18-015-203	18-015-235	-
0 to 160	0 to 11	0 to 1.1	18-015-212	18-015-204	18-015-209	18-015-260
0 to 300	0 to 20	0 to 2.1	18-015-275	18-015-205	18-015-210	18-015-267

Center back connection, panel mount

Scale Range			Connection & Face Diameter
Outer scale psig	Middle scale bar	Inner scale Mpa	1/8 NPT male and 10-32 female 1.5"
0 to 30	0 to 2	0 to 0.2	5PG-406-000 **
0 to 60	0 to 4	0 to 0.4	5PG-412-000 **
0 to 100	0 to 7	0 to 0.7	5PG-420-000 **

** Requires 1.63" (41 mm) diameter panel hole.

Bottom connection

Scale Range			Connection and Face Diameter	
Outer scale psig	Middle scale bar	Inner scale Mpa	1/8" NPT 1.5"	1/4" NPT 2"
0 to 15	0 to 1	-	-	18-015-082
0 to 30	0 to 2	0 to 0.2	18-015-224	18-015-030 *
0 to 60	0 to 4	0 to 0.4	18-015-225	18-015-083 *
0 to 100	0 to 7	0 to 0.7	18-015-265	18-015-084 *
0 to 160	0 to 11	0 to 1.1	18-015-273	18-015-085 *
0 to 300	0 to 20	-	-	18-015-086 *
0 to 2000	0 to 135	-	-	18-015-244 **

* Underwriters Laboratories Inc. Listed

† Shipped with pulsation dampener installed.

Stainless Steel, center back connection, panel mount

Scale Range			Connection and Face Diameter	
Outer scale bar	Inner scale psig	Inner scale Mpa	1/8" PTF 1.5" dia.	1/4" PTF 1.5" dia.
0 to 6	0 to 84	n/a	-	18-015-913
0 to 10	0 to 140	n/a	18-015-844	18-015-909

Scale Range			Connection and Face Diameter
Outer scale psig	Middle scale bar	Inner scale Mpa	1/4" NPT 2.26" dia.
0 to 160	0 to 11	0 to 1.1	18-015-917

EXCELON® MODULAR SYSTEM

Combination filter/regulators and lubricators BL72, 73, 74 – 1/4" PTF to 3/4" PTF

- » Boxed sets include: filter/regulator and micro-fog lubricator complete with exhausting shut-off valve, pressure gauge and mounting brackets
- » True modularity with Norgren Quikclamp® connections
- » Quick release bayonet bowl
- » Lubricator flow sensor provides a nearly constant oil/air ratio over a wide range of air flows
- » All around (360°) visibility of the lubricator sight-feed dome simplifies installation and adjustment
- » Regulator balanced valve minimizes effect of variation in the inlet pressure on the outlet pressure

Technical Data

Fluid:

Compressed air

Maximum pressure:

Transparent bowl: 150 psig (10 bar)

Metal bowl: 250 psig (17 bar)

Operating temperature*:

Transparent bowl:

0° to 125°F (-20° to 50°C)

Metal bowl:

0° to 150°F (-20° to 65°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Particle removal:

40 µm filter element

Materials

Body: zinc or aluminum

Bonnet: (72) acetal or aluminum

Bowl: (72) polycarbonate

(73, 74) aluminum

Metal bowl liquid level indicator lens:

transparent nylon

Sight-feed dome: transparent nylon

Element: sintered polypropylene
















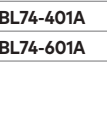

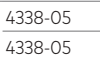
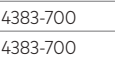
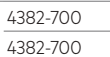
Elastomers: CR, nitrile



BL73-301A

Models

Accessories

Model No.	Port size PTF	Diaphragm	Outlet pressure range psig	Filter drain	Bowl type	Tamper evident kit	Element	Filter / regulator service kit	Lubricator service kit
	1/4"	Relieving	5 to 150	Auto	Transparent				
BL72-201A	1/4"	Relieving	5 to 150	Auto	Transparent	4255-51	5925-02	4383-500	4382-500
	3/8"	Relieving	5 to 150	Auto	Metal				
BL73-301A	3/8"	Relieving	5 to 150	Auto	Metal	4455-51	4438-03	4383-600	4382-600
	1/2"	Relieving	5 to 150	Auto	Metal				
BL74-401A	1/2"	Relieving	5 to 150	Auto	Metal	4355-51	4338-05	4383-700	4382-700
	3/4"	Relieving	5 to 150	Auto	Metal				
BL74-601A	3/4"	Relieving	5 to 150	Auto	Metal	4355-51	4338-05	4383-700	4382-700



More info and CAD available online at:
norgren.com

EXCELON® MODULAR SYSTEM

General purpose filters F72G, F73G, F74G – 1/4" to 3/4" PTF

- » Excelon® design allows in-line or modular installation with other Excelon® products
- » Quick release bayonet bowl
- » Highly visible prismatic liquid level indicator lens on metal bowls

Technical Data

Fluid:
Compressed air

Operating pressure:
Transparent bowl: 150 psig (10 bar)
Metal bowl: 250 psig (17 bar)
F72G w/metal bowl and automatic drain: 150 psig (10 bar)

Operating temperature*:
Transparent bowl:
-30° to 125°F (-34° to 50°C)
Metal bowl:
(72) -30° to 150°F (-34° to 66°C)
(73, 74) -30° to 175°F (-34° to 80°C)
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Flow**

Model	SCFM
F72G-2AN	55
F73G-3AN	63
F74G-4AN	140

** Typical flow with 40 µm element at 90 psig inlet pressure and 5 psig pressure drop.

Materials:

F72G:
Body: zinc
Transparent bowl: polycarbonate
Metal bowl: zinc
Metal bowl liquid level indicator lens: transparent nylon
Element: sintered polypropylene
Elastomers: CR and nitrile

F73G & F74G:
Body: aluminum
Metal bowl: aluminum
Transparent bowl: Polycarbonate
Transparent bowl guard:
73: Steel
74: Aluminum
Metal bowl liquid level indicator lens: transparent nylon
Element: sintered polypropylene
Elastomers: CR and nitrile



Models

Accessories

F72G Autodrain Model No.	F72G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Service kit*	Element
		1/4"	Transparent	40 µm						
F72G-2AN-AL3	F72G-2AN-QT3	1/4"	Transparent	40 µm	4224-50	4215-02	4214-51	4214-52	4380-500	5925-02
		3/8"	Transparent	40 µm						
F72G-3AN-AL3	F72G-3AN-QT3	3/8"	Transparent	40 µm	4224-50	4215-03	4214-51	4214-52	4380-500	5925-02

F73G Autodrain Model No.	F73G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Service kit*	Element
		1/4"	Metal	40 µm						
F73G-2AN-AD3	F73G-2AN-QD3	1/4"	Metal	40 µm	4424-50	4315-01	4314-51	4314-52	4380-600	4438-03
		3/8"	Metal	40 µm						
F73G-3AN-AD3	F73G-3AN-QD3	3/8"	Metal	40 µm	4424-50	4315-02	4314-51	4314-52	4380-600	4438-03
		1/2"	Metal	40 µm						
F73G-4AN-AD3	F73G-4AN-QD3	1/2"	Metal	40 µm	4424-50	4315-03	4314-51	4314-52	4380-600	4438-03

F74G Autodrain Model No.	F74G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Service kit*	Element
		3/8"	Metal	40 µm						
F74G-3AN-AD3	F74G-3AN-QD3	3/8"	Metal	40 µm	4324-50	4315-02	4314-51	4314-52	4380-700	4338-05
		1/2"	Metal	40 µm						
F74G-4AN-AD3	F74G-4AN-QD3	1/2"	Metal	40 µm	4324-50	4315-03	4314-51	4314-52	4380-700	4338-05
		3/4"	Metal	40 µm						
F74G-6AN-AD3	F74G-6AN-QD3	3/4"	Metal	40 µm	4324-50	4315-04	4314-51	4314-52	4380-700	4338-05

* Kit includes seal and gasket

EXCELON® MODULAR SYSTEM

Coalescing filters F72C, F73C, F74C – 1/4" to 3/4" PTF

- » Excelon® design allows in-line or modular installation
- » High efficiency oil and particle removal
- » Quick release bayonet bowl
- » Standard visual service life indicator turns from green to red when the filter element needs to be replaced

Technical Data

Fluid:

Compressed air

Maximum pressure:

Transparent bowl:
150 psig (10 bar)
F72C metal bowl w/auto drain:
150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Operating temperature*:

Transparent bowl:
-30° to 125°F (-34° to 50°C)
Metal bowl:
-30° to 150°F (-34° to 65°C)

* Air supply must be dry enough to avoid ice

formation at temperatures below 35°F (2°C).

Oil removal:

0.01 µm at 70°F (21°C)
Remaining oil content:
0.01 mg/m3 at 70°F (21°C)

Flow**

Model	SCFM
F72C	9.5
F73C	21.2
F74C	33.9
F74H	59.3

** Typical flow with 90 psig inlet pressure to maintain stated oil removal performance.



Models

Accessories

F72C Autodrain Model No.	F72C Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quick- mount pipe adapter	Quikclamp	Quikclamp and bracket	Visual service indicator	Service kit*	Element
		1/4"	Transparent							
F72C-2AD-ALO	F72C-2AD-QTO	1/4"	Transparent	4224-50	4215-02	4214-51	4214-52	5797-50	4380-500	5925-09
		3/8"	Transparent							
F72C-3AD-ALO	F72C-3AD-QTO	3/8"	Transparent	4224-50	4215-03	4214-51	4214-52	5797-50	4380-500	5925-09
F73C Autodrain Model No.	F73C Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quick- mount pipe adapter	Quikclamp	Quikclamp and bracket	Visual service indicator	Service kit*	Element kit
		1/4"	Metal							
F73C-2AD-ADO	F73C-2AD-QDO	1/4"	Metal	4424-50	4315-01	4314-51	4314-52	5797-50	4380-602	4444-01
		3/8"	Metal							
F73C-3AD-ADO	F73C-3AD-QDO	3/8"	Metal	4424-50	4315-02	4314-51	4314-52	5797-50	4380-602	4444-01
		1/2"	Metal							
F73C-4AD-ADO	F73C-4AD-QDO	1/2"	Metal	4424-50	4315-03	4314-51	4314-52	5797-50	4380-602	4444-01
F74C Autodrain Model No.	F74C Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quick- mount pipe adapter	Quikclamp	Quikclamp and bracket	Visual service indicator	Service kit*	Element
		3/8"	Metal							
F74C-3AD-ADO	F74C-3AD-QDO	3/8"	Metal	4324-50	4315-02	4314-51	4314-52	5797-50	4380-730	4344-01
		1/2"	Metal							
F74C-4AD-ADO	F74C-4AD-QDO	1/2"	Metal	4324-50	4315-03	4314-51	4314-52	5797-50	4380-730	4344-01
F74H Autodrain Model No.	F74H Manual Drain Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quick- mount pipe adapter	Quikclamp	Quikclamp and bracket	Visual service indicator	Service kit*	Element
		1/2"	Metal							
F74H-4AD-ADO	F74H-4AD-QDO	1/2"	Metal	4324-50	4315-03	4314-51	4314-52	5797-50	4380-730	4344-02
		3/4"	Metal							
F74H-6AD-ADO	F74H-6AD-QDO	3/4"	Metal	4324-50	4315-04	4314-51	4314-52	5797-50	4380-730	4344-02

* Kit includes: seal and gasket

EXCELON® MODULAR SYSTEM

Oil vapor removal filters F72V, F74V – 1/4" to 3/4" PTF

- » Excelon® design allows in-line or modular installation with other Excelon® products
- » Adsorbing type activated carbon element removes oil vapors and most hydrocarbon odors
- » Quick release bayonet bowl
- » High intensity blue color change indication

Technical Data

Fluid:

Compressed air

Maximum pressure:

Transparent bowl: 150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

Operating temperature*:

Transparent bowl:
0° to 125°F (-20° to 50°C)
Metal bowl:
0° to 150°F (-20° to 65°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Flow**

Model SCFM

F72V 3.4

F74V 21.0

** Typical flow with 90 psig inlet pressure to maintain stated oil removal performance.

Maximum remaining

oil content in outlet air:
0.003 ppm at 70°F (20°C)

Materials

F72V








Body and metal bowl: zinc
Transparent bowl: polycarbonate
Element: Activated carbon
Elastomers: CR and nitrile







F74V

Body: aluminum
Metal bowl: aluminum
Element: Activated carbon
Elastomers: CR and nitrile



Models

F72V Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Service kit*	Element
	1/4"	Transparent						
F72V-2AN-ELC	1/4"	Transparent	4224-50	4215-02	4214-51	4214-52	4380-500	4241-01
F72V-3AN-ELC	3/8"	Transparent	4224-50	4215-03	4214-51	4214-52	4380-500	4241-01

F74V Model No.	Port size PTF	Bowl type	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Element
	3/8"	Metal					
F74V-3AN-EMA	3/8"	Metal	4324-50	4315-02	4314-51	4314-52	4341-01
F74V-4AN-EMA	1/2"	Metal	4324-50	4315-03	4314-51	4314-52	4341-01
F74V-6AN-EMA	3/4"	Metal	4324-50	4315-04	4314-51	4314-52	4341-01

* Kit includes seal and gasket

→ More info and CAD available online at: norgren.com

EXCELON® MANIFOLD REGULATORS

R72M and R74M 1/4" to 1/2" PTF

- » Excelon® design allows in-line or modular installation
- » Manifold typically up to six regulators without booster signal

Technical Data

Fluid:

Compressed air

Maximum pressure:

300 psig (20 bar)

Operating temperature*:

R72M: -30° to 150°F

(-34° to 65°C)

R74M: -30° to 175°F

(-34° to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Ports:

Inlet ports (2):

R72M: 1/4" or 3/8" PTF

R74M: 1/2" or 3/4" PTF

Outlet port (1):

R72M: 1/4" PTF

R74M: 1/2" PTF

Gauge port (1):

1/8" PTF

Flow**

Model **SCFM**

R72M 83

R74M 220

** Typical flow with 150 psig inlet pressure, 90 psig set pressure and a 15 psig droop from set.

NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Materials

R72

Body: Zinc

Bonnet: Acetal

R74

Body and bonnet: Aluminum

R72 and 74

Elastomers: Nitrile



















Bottom plug: Acetal

Valve: Polypropylene and Geolast



Models

Accessories

R72M Series Model No.	Inlet Port (2) PTF	Outlet Port (1) PTF	Wall mounting bracket	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge psig	Service kit*
										
R72M-2AK-RMG	1/4"	1/4"	4224-50	4215-02	4214-51	4214-52	74316-50	4255-51	Gauge included	4381-500
R72M-3AK-RMG	3/8"	1/4"	4224-50	4215-03	4214-51	4214-52	74316-50	4255-51	Gauge included	4381-500
										
R74M-4AK-RMG	1/2"	1/2"	4324-50	4315-03	4314-51	4314-52	4368-51	4355-51	Gauge included	4381-700

* Kit includes: diaphragm, valve, valve spring, and o-rings

➔ More info and CAD available online at:
norgren.com

EXCELON® MODULAR SYSTEM PRESSURE REGULATORS

R72G, R73G, R74G – 1/4" to 3/4" PTF

- » Balanced valve design for optimum pressure control
- » Standard relieving models allow reduction of downstream pressure when the system is dead-ended
- » Push to lock adjusting knob with tamper evident accessory

Technical Data

Fluid:
Compressed air

Maximum pressure:
300 psig (20 bar)

Operating temperature*:
R72: -30° to 150°F (-34° to 65°C)
R73 and R74: -30° to 175°F (-34° to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Materials
Elastomers: nitrile
Bottom plug: acetal

R72G
Body: zinc
Bonnet: acetal
Valve: Polypropylene and Geolast®

R73G, R74G
Body: aluminum
Bonnet: aluminum or zinc
Valve: Polypropylene and Geolast®



Flow**			
Model	SCFM	Model	SCFM
R72G	70	R74G 3AK	208
R73G 2AK	91	R74G 4AK	220
R73G 3AK	144	R74G 6AK	220
R73G 4AK	144		

** Typical flow with 150 psig inlet pressure, 90 psig set pressure and a 15 psig droop from set.
NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Models

Accessories

R72G Series Model No.	Port size PTF	Spring rate psig	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge psig	Service kit*
R72G-2AK-RMN	1/4"	5 to 150	4224-50	4215-02	4214-51	4214-52	74316-50	4255-51	18-015-212	4381-500
R72G-2AK-RMG	1/4"	5 to 150	4224-50	4215-02	4214-51	4214-52	74316-50	4255-51	Gauge included	4381-500
R72G-3AK-RMN	3/8"	5 to 150	4224-50	4215-03	4214-51	4214-52	74316-50	4255-51	18-015-212	4381-500
R72G-3AK-RMG	3/8"	5 to 150	4224-50	4215-03	4214-51	4214-52	74316-50	4255-51	Gauge included	4381-500

R73G Series Model No.	Port size PTF	Spring rate psig	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge psig	Service kit*
R73G-2AK-RMN	1/4"	5 to 150	4424-50	4315-01	4314-51	4314-52	4461-50	4455-51	18-015-209	4381-600
R73G-2AK-RMG	1/4"	5 to 150	4424-50	4315-01	4314-51	4314-52	4461-50	4455-51	Gauge included	4381-600
R73G-3AK-RMN	3/8"	5 to 150	4424-50	4315-02	4314-51	4314-52	4461-50	4455-51	18-015-209	4381-600
R73G-3AK-RMG	3/8"	5 to 150	4424-50	4315-02	4314-51	4314-52	4461-50	4455-51	Gauge included	4381-600
R73G-4AK-RMN	1/2"	5 to 150	4424-50	4315-03	4314-51	4314-52	4461-50	4455-51	18-015-209	4381-600
R73G-4AK-RMG	1/2"	5 to 150	4424-50	4315-03	4314-51	4314-52	4461-50	4455-51	Gauge included	4381-600

R74G Series Model No.	Port size PTF	Spring rate psig	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge psig	Service kit*
R74G-3AK-RMN	3/8"	5 to 150	4324-50	4315-02	4314-51	4314-52	4368-51	4355-51	18-015-209	4381-700
R74G-3AK-RMG	3/8"	5 to 150	4324-50	4315-02	4314-51	4314-52	4368-51	4355-51	Gauge included	4381-700
R74G-4AK-RMN	1/2"	5 to 150	4324-50	4315-03	4314-51	4314-52	4368-51	4355-51	18-015-209	4381-700
R74G-4AK-RMG	1/2"	5 to 150	4324-50	4315-03	4314-51	4314-52	4368-51	4355-51	Gauge included	4381-700
R74G-6AK-RMN	3/4"	5 to 150	4324-50	4315-04	4314-51	4314-52	4368-51	4355-51	18-015-209	4381-700
R74G-6AK-RMG	3/4"	5 to 150	4324-50	4315-04	4314-51	4314-52	4368-51	4355-51	Gauge included	4381-700

* Kit includes: diaphragm, valve, valve spring, and o-rings

EXCELON® MODULAR SYSTEM FILTER/REGULATORS

B72G, B73G, B74G – 1/4" to 3/4" PTF

- » High efficiency water and particle removal
- » Quick release bayonet bowl
- » Push to lock adjusting knob with tamper evident accessory

Technical Data

Fluid:

Compressed air Maximum pressure:
Transparent bowl: 150 psig (10 bar)
Metal bowl: 250 psig (17 bar)

B72G metal bowl w/ auto drain:
150 psig (10 bar)

Operating temperature*:

Transparent bowl:
(72) -30° to 125°F (-34° to 50°C)
Metal bowl:
(72) -30° to 150°F (-34° to 66°C)
(73, 74) -30° to 175°F (-34° to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Particle removal: 5 or 40 µm

Flow**

Model	SCFM
B72G	80
B73G 2AK	78
B73G 3AK	123
B73G 4AK	123
B74G 3AK	163
B74G 4AK	212
B74G 6AK	212

Materials

B72G

Body: zinc
Bonnet: acetal
Valve: Polypropylene and Geolast
Transparent bowl: polycarbonate
Metal bowl: zinc
Liquid level indicator lens (metal bowl): transparent nylon
Element: sintered polypropylene
Elastomers: CR & nitrile










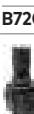






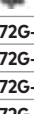































B73G & B74G:

Body: aluminum
Bonnet: (73) Zinc, (74) aluminum
Transparent bowl (74): polycarbonate
Transparent bowl guard (74): aluminum
Metal bowl: aluminum
Liquid level indicator lens (metal bowl): transparent nylon
Element: sintered polypropylene
Elastomers: CR & nitrile
Valve: Polypropylene and Geolast

** Typical flow with 150 psig inlet pressure, 90 psig set pressure a 15 psig droop from set and 40 µm element. NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.



Models

B72G Autodrain Model No.	B72G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Neck mounting bracket	Tamper evident cover wire	Gauge 0 to 160 psig	Replacement element	Service kit
		1/4"	Transparent	40µ						
B72G-2AK-AL3-RMN	B72G-2AK-QT3-RMN	1/4"	Transparent	40µ	4224-50	74316-50	4255-51	18-015-212	5925-02	4383-500
		3/8"	Transparent	40µ						
B72G-3AK-AL3-RMN	B72G-3AK-QT3-RMN	3/8"	Transparent	40µ	4224-50	74316-50	4255-51	18-015-212	5925-02	4383-500
		1/4"	Metal	40µ						
B72G-2AK-AE3-RMN	B72G-2AK-QD3-RMN	1/4"	Metal	40µ	4224-50	74316-50	4255-51	18-015-212	5925-02	4383-500
		1/4"	Metal	40µ						
B72G-2AK-AE3-RMG	B72G-2AK-QD3-RMG	1/4"	Metal	40µ	4224-50	74316-50	4255-51	Gauge included	5925-02	4383-500
		3/8"	Metal	40µ						
B72G-3AK-AE3-RMN	B72G-3AK-QD3-RMN	3/8"	Metal	40µ	4224-50	74316-50	4255-51	18-015-212	5925-02	4383-500
		3/8"	Metal	40µ						
B72G-3AK-AE3-RMG	B72G-3AK-QD3-RMG	3/8"	Metal	40µ	4224-50	74316-50	4255-51	Gauge included	5925-02	4383-500

*Kit includes: Diaphragm assembly, valve assembly, valve spring, louvre O-ring, bowl O-ring, drain seal









Accessories









➔ More info and CAD available online at: norgren.com

EXCELON[®] MODULAR SYSTEM FILTER/REGULATORS

B72G, B73G, B74G – 1/4" to 3/4" PTF

Models

B73G Autodrain Model No.	B73G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Neck mounting bracket	Tamper evident cover wire	Gauge 0 to 160 psig	Replacement element	Service kit*
										
B73G-2AK-AD3-RMN	B73G-2AK-QD3-RMN	1/4"	Metal	40μ	4424-50	4461-50	4455-51	18-015-209	4438-03	4383-600
B73G-2AK-AD3-RMG	B73G-2AK-QD3-RMG	1/4"	Metal	40μ	4424-50	4461-50	4455-51	Gauge included	4438-03	4383-600
B73G-3AK-AD3-RMN	B73G-3AK-QD3-RMN	3/8"	Metal	40μ	4424-50	4461-50	4455-51	18-015-209	4438-03	4383-600
B73G-3AK-AD3-RMG	B73G-3AK-QD3-RMG	3/8"	Metal	40μ	4424-50	4461-50	4455-51	Gauge included	4438-03	4383-600
B73G-4AK-AD3-RMN	B73G-4AK-QD3-RMN	1/2"	Metal	40μ	4424-50	4461-50	4455-51	18-015-209	4438-03	4383-600
B73G-4AK-AD3-RMG	B73G-4AK-QD3-RMG	1/2"	Metal	40μ	4424-50	4461-50	4455-51	Gauge included	4438-03	4383-600

B74G Autodrain Model No.	B74G Manual Drain Model No.	Port size PTF	Bowl type	Element	Wall mounting bracket	Neck mounting bracket	Tamper evident cover wire	Gauge 0 to 160 psig	Replacement element	Service kit*
										
B74G-3AK-AD3-RMN	B74G-3AK-QD3-RMN	3/8"	Metal	40μ	4324-50	4368-51	4355-51	18-015-209	4338-05	4383-700
B74G-3AK-AD3-RMG	B74G-3AK-QD3-RMG	3/8"	Metal	40μ	4324-50	4368-51	4355-51	Gauge included	4338-05	4383-700
B74G-4AK-AD3-RMN	B74G-4AK-QD3-RMN	1/2"	Metal	40μ	4324-50	4368-51	4355-51	18-015-209	4338-05	4383-700
B74G-4AK-AD3-RMG	B74G-4AK-QD3-RMG	1/2"	Metal	40μ	4324-50	4368-51	4355-51	Gauge included	4338-05	4383-700
B74G-6AK-AD3-RMN	B74G-6AK-QD3-RMN	3/4"	Metal	40μ	4324-50	4368-51	4355-51	18-015-209	4338-05	4383-700
B74G-6AK-AD3-RMG	B74G-6AK-QD3-RMG	3/4"	Metal	40μ	4324-50	4368-51	4355-51	Gauge included	4338-05	4383-700

*Kit includes: Diaphragm assembly, valve assembly, valve spring, louvre O-ring, bowl O-ring, drain seal

➔ More info and CAD available online at:
norgren.com

EXCELON® MODULAR SYSTEM LUBRICATORS

L72, L73, L74 – 1/4" to 3/4" PTF

- » In-line or modular installation
- » Flow sensor provides a nearly constant oil/air ratio over a wide range of flows
- » All round (360°) visibility of sight-feed dome for ease of drip rate setting
- » Micro-fog lubricators for best lubrication in general purpose pneumatic applications

Technical Data

Fluid:

Compressed air
 Maximum pressure:
 Transparent bowl: 150 psig
 Metal bowl: 250 psig
 Operating temperature*:
 (72) -30° to 150°F
 (73, 74) -30° to 175°F
 *Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Flow**

Model	SCFM	Model	SCFM
L72	51	L74C 3	118
L73	60	L74C 4	192
L74M 3	114	L74C 6	186
L74M 4	154		

Materials:

Transparent bowl: polycarbonate
 Liquid level indicator lens (metal bowl): transparent nylon
 Sight-feed dome: nylon

L72

Body: zinc
 Elastomers: CR, nitrile & Geolast
 Metal bowl: 1/4" turn plastic
 Plastic bowl: 1/4" turn plastic
 Long metal bowl: 1/4" turn plastic









** Typical flow with 90 psig inlet pressure and drop of 7 psig.















L73, L74









Body: aluminum
 Metal bowl: aluminum
 Elastomers: CR & nitrile

Models

L72 Series Model No.	Port size PTF	Lubrication type	Bowl type	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Quick fill nipple	Sight feed dome*	Service kit**
										
L72M-2AP-QTN	1/4"	Micro-Fog	Transparent	4224-50	4215-02	4214-51	4214-52	N/A	4055-50	4382-500
L72C-2AP-QTN	1/4"	Oil Fog	Transparent	4224-50	4215-02	4214-51	4214-52	N/A	4055-51	4382-500
L73M-3AP-QTN	3/8"	Micro-Fog	Transparent	4224-50	4215-03	4214-51	4214-52	N/A	4055-50	4382-500
L72C-3AP-QTN	3/8"	Oil Fog	Transparent	4224-50	4215-03	4214-51	4214-52	N/A	4055-51	4382-500

										
L72M-2AP-QDN	1/4"	Micro-Fog	Metal	4224-50	4215-02	4214-51	4214-52	N/A	4055-50	4382-500
L72C-2AP-QDN	1/4"	Oil Fog	Metal	4224-50	4215-02	4214-51	4214-52	N/A	4055-51	4382-500
L72M-3AP-QDN	3/8"	Micro-Fog	Metal	4224-50	4215-03	4214-51	4214-52	N/A	4055-50	4382-500
L72C-3AP-QDN	3/8"	Oil Fog	Metal	4224-50	4215-03	4214-51	4214-52	N/A	4055-51	4382-500

L73 Series Model No.	Port size PTF	Lubrication type	Bowl type	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Quick fill nipple	Sight feed dome*	Service kit**
										
L73M-2AP-QDN	1/4"	Micro-Fog	Metal	4424-50	4315-01	4314-51	4314-52	18-011-024	4055-50	4382-600
L73C-2AP-QDN	1/4"	Oil Fog	Metal	4424-50	4315-01	4314-51	4314-52	18-011-024	4055-51	4382-600
L73M-3AP-QDN	3/8"	Micro-Fog	Metal	4424-50	4315-02	4314-51	4314-52	18-011-024	4055-50	4382-600
L73C-3AP-QDN	3/8"	Oil Fog	Metal	4424-50	4315-02	4314-51	4314-52	18-011-024	4055-51	4382-600
L73C-4AP-QDN	1/2"	Oil Fog	Metal	4424-50	4315-03	4314-51	4314-52	18-011-024	4055-51	4382-600
L73M-4AP-QDN	1/2"	Micro-Fog	Metal	4424-50	4315-03	4314-51	4314-52	18-011-024	4055-50	4382-600

L74 Series Model No.	Port size PTF	Lubrication type	Bowl type	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Quick fill nipple	Sight feed dome*	Service kit**
										
L74M-3AP-QDN	3/8"	Micro-Fog	Metal	4324-50	4315-02	4314-51	4314-52	18-011-024	4055-50	4382-700
L74C-3AP-QDN	3/8"	Oil Fog	Metal	4324-50	4315-02	4314-51	4314-52	18-011-024	4055-51	4382-700
L74M-4AP-QDN	1/2"	Micro-Fog	Metal	4324-50	4315-03	4314-51	4314-52	18-011-024	4055-50	4382-700
L74C-4AP-QDN	1/2"	Oil Fog	Metal	4324-50	4315-03	4314-51	4314-52	18-011-024	4055-51	4382-700
L74M-6AP-QDN	3/4"	Micro-Fog	Metal	4324-50	4315-04	4314-51	4314-52	18-011-024	4055-50	4382-700
L74C-6AP-QDN	3/4"	Oil Fog	Metal	4324-50	4315-04	4314-51	4314-52	18-011-024	4055-51	4382-700

* Micro-Fog sight dome shown ** Kit includes: Seal and gasket

EXCELON® MODULAR SYSTEM

PRESSURE RELIEF VALVES V72G, V74G – 1/4" to 3/4" PTF

- » Excelon® design allows in-line installation or modular installation with other Excelon® products
- » Push to lock adjusting knob with tamper evident accessory
- » Helps protect air operated equipment from over pressurization

Norgren pressure relief valves comply with category 0 (S.E.P.) and category 1 of the Pressure Equipment Directive 97/23/EC.

Technical Data

Medium:
Compressed air

Gauge ports:
V72G: 1/8" PTF
V74G: 1/4" PTF

Relief port:
V72G: 1/4" PTF
V74G: 1/2" PTF

Ambient temperature*:
(72) -30° to 150°F (-34° to 65°C)
(74) -30° to 175°F (-34° to 80°C)
* Consult our Technical Service for use below +2°C











Relief pressure adjustment range:
150 psig (10 bar)
NOTE: Outlet pressure can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.











Materials
V72G
Body: zinc body
Bonnet: acetal
Diaphragm: nitrile
V74G
Body & bonnet: aluminum
Valve: aluminum and nitrile
Diaphragm: CR
Bottom plug: acetal



Models

Accessories

V72 Series Model No.	Port size PTF	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge 0 to 160 psig	Silencer	Diaphragm and seal
										
V72G-2AK-NMN	1/4"	4224-50	4215-02	4214-51	4214-52	74316-50	4255-51	18-015-212	MB002A	4209-03
V72G-3AK-NMN	3/8"	4224-50	4215-03	4214-51	4214-52	74316-50	4255-51	18-015-212	MB002A	4209-03

V74 Series Model No.	Port size PTF	Wall mounting bracket	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket	Neck mounting bracket	Tamper evident cover & wire	Gauge 0 to 160 psig	Silencer	Diaphragm and seal
										
V74G-3AK-NMN	3/8"	4324-50	4315-02	4314-51	4314-52	4368-51	4355-51	18-015-209	MB004A	4384-700
V74G-4AK-NMN	1/2"	4324-50	4315-03	4314-51	4314-52	4368-51	4355-51	18-015-209	MB004A	4384-700
V74G-6AK-NMN	3/4"	4324-50	4315-04	4314-51	4314-52	4368-51	4355-51	18-015-209	MB004A	4384-700

➔ More info and CAD available online at: norgren.com

EXCELON[®] MODULAR SYSTEM

LOCKOUT VALVES 1/4" PTF to 3/4" PTF

- » Excelon[®] design allows in-line or modular installation
- » Valves can be locked in the closed position only
- » Excelon[®] 3-port/2-position lockout valves help conform to OSHA Lockout regulations in USA market.

Technical Data

Fluid:
Compressed air

Maximum Pressure:
250 psig (17 bar)

Operating Temperature*:
-30° to 150°F (-34° to 65°C)
* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Cv factor from OUT to Exhaust ports on 3-port/2-position valves: 0.2.Hole diameter in slide for padlock:
T72 and T73: 5/16" (8 mm)
T74: 0.29" (7.5 mm)

Cv factor from IN to OUT ports

1/4" ports: 4.0
3/8" ports: T73 - 8.0, T74 - 7.1
1/2" ports: T73 - 7.8, T74 - 8.1
3/4" ports: 7.7

Materials

Body: Zinc
Slide: Acetal plastic
Elastomers: Nitrile




T74



T72 and T73

Models

Accessories

Model No.	Port size PTF	Quick-mount pipe adapter	Quikclamp	Quikclamp and bracket
				
T72E-2AA-P1N	1/4"	4215-02	4214-51	4214-52
T72E-3AA-P1N	3/8"	4215-03	4214-51	4214-52
				
T73E-2AA-P1N	1/4"	4315-01	4314-51	4314-52
T73E-3AA-P1N	3/8"	4315-02	4314-51	4314-52
T73E-4AA-P1N	1/2"	4315-03	4314-51	4314-52
				
T74E-3AA-P1N	3/8"	4315-02	4314-51	4314-52
T74E-4AA-P1N	1/2"	4315-03	4314-51	4314-52
T74E-6AA-P1N	3/4"	4315-04	4314-51	4314-52



More info and CAD available online at:
norgren.com

EXCELON[®] MODULAR SYSTEM

SOFT START/DUMP VALVE P72F, P74F – 1/4" PTF to 3/4" PTF

- » Controlled increase of downstream pressure on start up reduces possible damage and hazard to personnel and equipment
- » High forward flow capacity
- » High flow dump facility

Technical Data

Fluid:

Compressed air

Maximum pressure solenoid operated:

150 psig (10 bar)

Maximum pressure pilot operated:

250 psig (17 bar)

Minimum operating pressure:

44 psig (3 bar)

Operating temperature solenoid operated:

0° to 125°F* (-20° to 50°C)

Operating temperature pilot operated:








0°* to 150°F (-20°* to 65°C) (72)








0°* to 175°F (-20°* to 80°C) (74)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).



Models

P72F Series 24 VDC Solenoid Operated	P72F Series Air Pilot Operated	Port size PTF	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Connector	Silencer
							
P72F-2AC-PFA	P72F-2AA-NNN	1/4"	4215-02	4214-51	4214-52	54934-01	MB002A
P72F-3AC-PFA	P72F-3AA-NNN	3/8"	4215-03	4214-51	4214-52	54934-01	MB002A

P74F Series 24 VDC Solenoid Operated	P74F Series Air Pilot Operated	Port size PTF	Quickmount pipe adapter	Quikclamp	Quikclamp and bracket	Connector	Silencer
							
P74F-4AC-PFA	P74F-4AA-NNN	1/2"	4315-03	4314-51	4314-52	54934-01	MB004A
P74F-6AC-PFA	P74F-6AA-NNN	3/4"	4315-04	4314-51	4314-52	54934-01	MB004A



More info and CAD available online at:
norgren.com

EXCELON® W74D DESICCANT

Compressed Air Dryer

- » Helps eliminate condensate at point-of-use.
- » Replaceable element filters outlet air to help prevent desiccant dust migration down stream.
- » Desiccant color changes from orange to light green at the 35% moisture adsorption level at 77°F, and continues to an intense violet at the 50% moisture adsorption level at 77° (25°C).
- » Desiccant can be dried and reused or replaced with new packet.
- » Typical dew point suppression of 15°F (-10°C) below inlet ambient pressure dew point.

Technical Data

Fluid: Compressed air
Maximum pressure

150 psig (10 bar)

Operating temperature*
0° to 125°F (-20° to 50°C)

* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C).

Nominal bowl capacity
0.25 pounds (0.11 kg) desiccant

Maximum allowable air flow:
10 scfm (4.72 dm³/g)
Nominal air drying capacity:
At 100 psig (6.9 bar) inlet pressure and 77°F (25°C) 750 cubic feet (21 cubic meters)

Minimum required prefilters:


General purpose filter with 5-micron element and an oil removal filter with equivalent pipe size and flow capacity equal to or greater than the desiccant dryer. (Oil vapor removal filter suggested). Desiccant regeneration: Desiccant can be dried and reused by removing from dryer and heating to 275°F (135°C). Regeneration is complete when desiccant returns to original orange color.

Materials

Body: Aluminum
Bowl: Polycarbonate with steel bowl guard
Supply tube assembly: Aluminum/stainless steel screen
Desiccant drying agent: Silica gel
Filter element: Sintered polypropylene
Elastomers: CR and Nitrile



Models

Model No.	Port size PTF	Bowl (closed bottom)	Maximum pressure psig (bar)	Element	Service kit*	Replacement Desiccant**	Weight lb (kg)
 W74D3ANNPN	3/8"	Transparent w/metal Guard	150 (10)	Desiccant	4385-710	4385-700	2.00 (0.91)
W74D4ANNPN	1/2"	Transparent w/metal Guard	150 (10)	Desiccant	4385-710	4385-700	2.00 (0.91)

* Seal and filter element

** 5 bags desiccant, 0.25 lb. (0.11 kg) in each bag



More info and CAD available online at:
norgren.com

OLYMPIAN® PLUS GENERAL PURPOSE FILTER

F68G General purpose filters

- » Effective liquid removal and positive solid particle filtration
- » Large filter element area provides minimum pressure drop

Models

Port Size	Model auto drain 1 qt (1 liter bowl)	Filtration	Flow* scfm (dm ³ /s)	Weight lb (kg)
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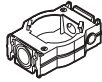


No yoke	F68E-NNN-AU3	40 µm	403 (190)	5.14 (2.33)
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*Typical flow with 40 µm element at 90 psig (6.3 bar) inlet pressure and a 5 psig (0.35 bar) pressure drop.

Accessories

Series	Size	Bracket kit	Single Yoke	Gauge 0 to 160 psig	Tamper resistant kit
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F68G	3/4	18-001-979	Y68A-6AN-N1N		
	1	18-001-979	Y68A-8AN-N1N		
	1-1/4	-	Y68A-AAN-N1N		
	1-1/2	-	Y68A-BAN-N1N		
B68G	3/4	18-001-979	Y68A-6AN-N1N	18-015-204	4355-51
	1	18-001-979	Y68A-8AN-N1N	18-015-204	4355-51
	1-1/4	-	Y68A-AAN-N1N	18-015-204	4355-51
	1-1/2	-	Y68A-BAN-N1N	18-015-204	4355-51

Technical Data

Fluid:

Compressed air, neutral gases
NOTE: Contact technical support for use with other media.

Maximum pressure:

250 psig (17 bar)

Operating temperature*:

0°F to 175°F (-20°C to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: aluminum
Yoke: aluminum
Bowl: aluminum
Element: sintered bronze or polypropylene
Elastomers: nitrile



OLYMPIAN® PLUS

Filter/Regulators B68E/G

- » Olympian® Plus plug in system
- » Effective liquid removal and particulate filtration
- » Large filter element area provides minimum pressure drop
- » High flow unit with large valve and diaphragm
- » Push to lock adjusting knob with tamper resistant option

Models

Port Size	Model with 1/4 turn manual drain 1 qt (1 liter) bowl	Model with automatic drain, 1 qt (1 liter) bowl	Filtration	Flow* scfm (dm ³ /s)	Weight lb (kg)
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No yoke	B68E-NAK-QU3-RLN	B68E-NAK-AU3-RLN	40 µm	509 (240)	7.25 (3.29)
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*Typical flow with 40 µm element at 90 psig (6.3 bar) inlet pressure and a 5 psig (0.35 bar) pressure drop.

Technical Data

Fluid:

Compressed air, neutral gases
NOTE: Contact technical support for use with other media.

Maximum pressure:

250 psig (17 bar)

Operating temperature*:

0°F to 175°F (-20°C to 80°C)

* Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Particle removal:

5 or 40 µm.

Materials

Body: aluminum
Yoke: aluminum
Bonnet: aluminum
Adjusting knob: acetal resin
Valve: aluminum
Bowl: aluminum
Sight glass: Pyrex
Element: sintered bronze or polypropylene
Elastomers: nitrile and CR



➔ More info and CAD available online at: norgren.com

OLYMPIAN® PLUS

Regulators R68G

- » Olympian® Plus plug in design
- » High flow general purpose regulator
- » Push to lock adjusting knob with tamper resistant option
- » Mount in any orientation

Technical Data

Inlet maximum pressure:

300 psig (20 bar)

Operating temperature*:

0°F to 175°F (-20°C to 80°C)


* Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials





Body: aluminum
 Yoke: aluminum
 Bonnet: aluminum
 Adjusting knob: acetal resin
 Valve: aluminum
 Elastomers: nitrile



Models

Model	Port Size	Diaphragm type	Gauge port thread	Adjustment	Pressure range PSI (bar)	Weight lb (kg)
						
R68G-NAK-RLN	No yoke	Relieving	PTF	Knob	5.8 to 116 (0.4 to 8)	2.6 (1.16)
R68G-NNK-RLN	No yoke	Relieving	ISO Rc	Knob	5.8 to 116 (0.4 to 8)	2.6 (1.16)

Accessories

Series	Size	Bracket kit	Single yoke	Gauge 0 to 160 psig*	Tamper resistant kit
					
L68	3/4"	18-001-979	Y68A-6AN-N1N		
	1"	18-001-979	Y68A-8AN-N1N		
	1-1/4"	-	Y68A-AAN-N1N		
	1-1/2"	-	Y68A-BAN-N1N		
R68G	3/4"	18-001-979	Y68A-6AN-N1N	18-015-204	4355-51
	1"	18-001-979	Y68A-8AN-N1N	18-015-204	4355-51
	1-1/4"	-	Y68A-AAN-N1N	18-015-204	4355-51
	1-1/2"	-	Y68A-BAN-N1N	18-015-204	4355-51

OLYMPIAN® PLUS

Lubricators—L68

- » Olympian® Plus plug in design
- » Constant oil density output with varying flow
- » Easy fill with quick release bayonet bowl
- » High visibility L64 prismatic sight glass

Technical Data

Maximum pressure:

250 psig (20 bar)

Operating temperature*:

0°F to 175°F (-20°C to 80°C)


* Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

Materials:

Body: aluminum
 Bowl: aluminum
 Yoke: aluminum
 Adjusting knob: acetal resin
 Elastomers: nitrile and CR



Models

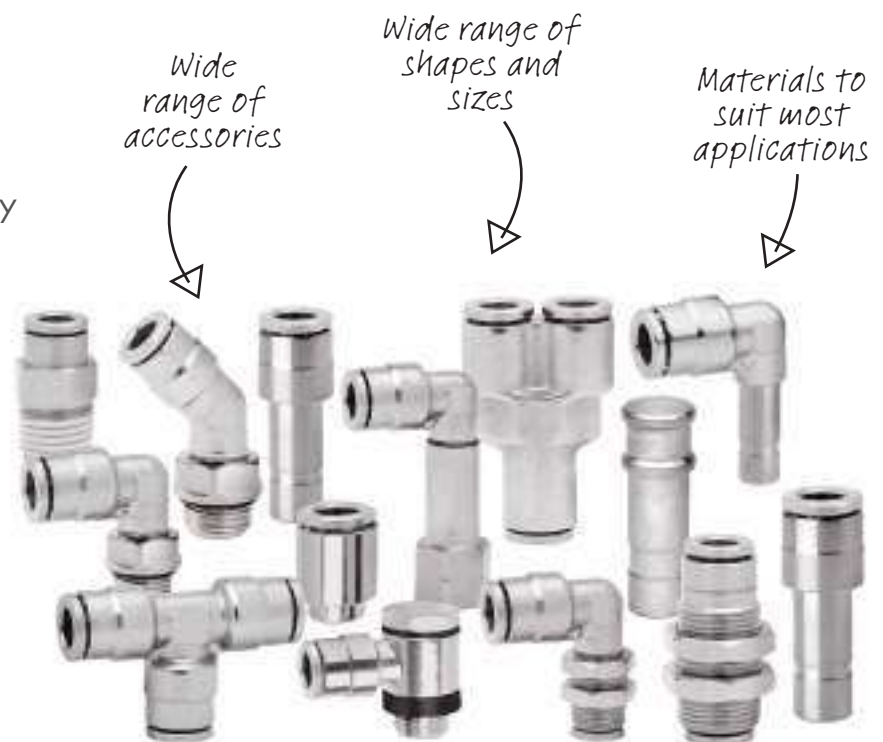
Model	Port Size	Drain type	Bowl type	Weight lb (kg)
				
L68M-NNP-QUN	No yoke	1/4 turn manual	1 qt (1 liter) metal with liquid level indicator	2.6 (1.16)

→ More info and CAD available online at: norgren.com

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Fittings, Tubing & Accessories

Norgren offers one of the most comprehensive ranges of pneumatic fittings in the industry. Selecting the right fitting is critical to the application. The Pneufit® and Fleetfit® lines of Push-In-Fittings are an ideal match for the industry sectors we work with most; Food and Beverage, Industrial Automation, Rail, Commercial Vehicle, Energy and Life Science. Adding to the robust line of pneumatic fittings are a selection of flow controls, non-return valves, air fuses and different styles of tubing.



Fast Find Guide

Please note: These products represent only part of the Norgren fittings range.
If you can't see the option you require please contact us.

Push-in Fittings

<p>Pneufit® push-in fittings Ø 1/8" to 1/2"</p>  <p>Page 246</p>	<p>Pneufit® C and M composite fittings Ø 1/8" to 1/2"</p>  <p>Page 249</p>	<p>Pneufit® D fittings Ø 5/32" to 1/2"</p>  <p>Page 254</p>	<p>Pneufit® push-in fittings Metric Ø 4 mm to 12 mm</p>  <p>Page 255</p>	<p>Pneufit® C and M composite fittings Metric Ø 4mm to 12 mm</p>  <p>Page 257</p>
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Function Fittings and Flow Controls

<p>Banjo flow controls Pneufit® push-in elbow banjo flow controls</p>  <p>Page 259</p>	<p>C20G & C00G series Push-in non-return valves</p>  <p>Page 260</p>	<p>T55, and T56 series Non-return valves</p>  <p>Page 260</p>	<p>M/800 series Heavy duty flow controls, uni-directional</p>  <p>Page 261</p>	<p>C20G series Push-in flow controls, uni-directional</p>  <p>Page 261</p>
<p>T1000 series Block form flow controls</p>  <p>Page 262</p>	<p>T60 series In-line excess flow shut-off valves</p>  <p>Page 263</p>	<p>T65 series Shuttle valves</p>  <p>Page 263</p>	<p>T70 series Quick exhaust valves</p>  <p>Page 264</p>	

Fast Find Guide

Please note: These products represent only part of the Norgren fittings range. If you can't see the option you require please contact us.

Tubing and Accessories

<p>Nylon tubing Ø 1/8" to 1/2"</p>  <p>Page 265</p>	<p>Polyurethane tubing Ø 1/8" to 3/8"</p>  <p>Page 265</p>	<p>Tube cutter</p>  <p>Page 265</p>	<p>Polyethylene tubing (LDPE) Ø 1/8" to 1/2"</p>  <p>Page 266</p>
<p>Rotowink indicators 10-32 UNF, 1/8" NPTF</p>  <p>Page 266</p>	<p>Miniature inline filters Ø 1/8", 5/32"</p>  <p>Page 266</p>		

Mufflers, Silencers, and Breather Vents

<p>MS series sintered bronze silencers</p>  <p>Page 267</p>	<p>Quietaire® Heavy duty mufflers</p>  <p>Page 267</p>	<p>C/S series porous plastic mufflers</p>  <p>Page 267</p>	<p>MQ series Plastic speed control</p>  <p>Page 267</p>	<p>Breather vents</p>  <p>Page 267</p>
<p>T20 series High performance flow control muffler</p>  <p>Page 267</p>	<p>Stem silencers</p>  <p>Page 267</p>	<p>Sintered bronze speed control</p>  <p>Page 267</p>		

PNEUFIT® PUSH-IN FITTINGS

Inch Ø 1/8" to 1/2" O/D tube

- » For simple and quick assembly of pneumatic circuits.
- » Positive tube connection.
- » Wide range of types available.
- » Reliable and corrosion resistant.

→ Online at norgren.com

Technical Data

Fluid:

Compressed air, nitrogen, inert and non-combustible gases compatible with materials of construction.

Note: For other types of fluids or compressed gases, please consult factory.

Working Pressure:

29.5" Hg vacuum to 260 psig
(750 mm Hg to 18 bar)

Flow Control working pressures:

5 to 150 psig
(.3 to 10 bar)

Working Temperature:

-4° to 175°F (-20° to 80°C)

Materials

Body, swivel fitting and collet:
Nickel plated brass

O-ring: Silicone free Nitrile
Sealing washer (parallel male threads): silicone free nitrile

Tubing: Nylon 11 or 12, Polyurethane (95 durometer or above) and LDPE (Low Density Polyethylene).

Note: Lower durometer polyurethane may be used, however, an internal tube support is required to prevent internal collapse of the tube wall.

Thread Sealant: Precote 5 thread sealant is factory applied to the circumference of tapered male threads.



Union

Part Number	Tube O.D.
120200100	1/8"
120200200	5/32"
120200300	3/16"
120200400	1/4"
120200500	5/16"
120200600	3/8"
120200700	1/2"



Union Elbow

Part Number	Tube O.D.
120400200	5/32"
120400300	3/16"
120400400	1/4"
120400500	5/16"
120400600	3/8"
120400700	1/2"



Union Tee

Part Number	Tube O.D.
120600100	1/8"
120600200	5/32"
120600300	3/16"
120600400	1/4"
120600500	5/16"
120600600	3/8"
120600700	1/2"



Bulkhead Union

Part Number	Tube O.D.	Metric Thread
120290100	1/8"	M10 x 1.0
120290200	5/32"	M10 x 1.0
120290400	1/4"	M14 x 1.0
120290500	5/16"	M16 x 1.0
120290600	3/8"	M20 x 1.0
120290700	1/2"	M20 x 1.0

PNEUFIT® PUSH-IN FITTINGS

Inch Ø 1/8" to 1/2" O/D tube



Parallel Union "Y"*

Part Number	Tube O.D.
120820200	5/32"
120820400	1/4"



Tube End Expander/Reducer

Part Number	Tube O.D.	Stem O.D.
120230201	1/8"	5/32"
120230401	1/8"	1/4"
120230402	5/32"	1/4"
120230602	5/32"	3/8"
120230504	1/4"	5/16"
120230604	1/4"	3/8"
120230704	1/4"	1/2"
120230705	5/16"	1/2"
120230706	3/8"	1/2"
Expanding		
120230104	1/4"	1/8"
120230204	1/4"	5/32"



Pneufit® Stem Adapter

Part Number	Stem O.D.	NPT Thread
124150418	1/4"	1/8
124150428	1/4"	1/4



Pneufit® Male Adapter

Part Number	Tube O.D.	NPT or UNF Thread
124250110	1/8"	10-32 UNF
124250116	1/8"	1/16
124250118	1/8"	1/8
124250128	1/8"	1/4
124250210	5/32"	10-32 UNF
124250218	5/32"	1/8
124250228	5/32"	1/4
124250318	3/16"	1/8
124250328	3/16"	1/4
124250410	1/4"	10-32 UNF
124250418	1/4"	1/8
124250428	1/4"	1/4
124250438	1/4"	3/8
124250518	5/16"	1/8
124250528	5/16"	1/4
124250538	5/16"	3/8
124250618	3/8"	1/8
124250628	3/8"	1/4
124250638	3/8"	3/8
124250648	3/8"	1/2
124250728	1/2"	1/4
124250738	1/2"	3/8
124250748	1/2"	1/2



Pneufit® Female Adapter

Part Number	Tube O.D.	NPT Thread
124260118	1/8"	1/8
124260128	1/8"	1/4
124260218	5/32"	1/8
124260228	5/32"	1/4
124260418	1/4"	1/8
124260428	1/4"	1/4
124260518	5/16"	1/8
124260528	5/16"	1/4
124260628	3/8"	1/4
124260638	3/8"	3/8



Pneufit® Fixed Male Elbow

Part Number	Tube O.D.	NPT Thread
124450118	1/8"	1/8
124450218	5/32"	1/8
124450228	5/32"	1/4
124450318	3/16"	1/8
124450418	1/4"	1/8
124450428	1/4"	1/4
124450438	1/4"	3/8
124450518	5/16"	1/8
124450528	5/16"	1/4
124450618	3/8"	1/8
124450628	3/8"	1/4
124450638	3/8"	3/8
124450648	3/8"	1/2
124450728	1/2"	1/4
124450738	1/2"	3/8
124450748	1/2"	1/2



Pneufit® Swivel Male Elbow

Part Number	Tube O.D.	NPT or UNF Thrd
124470110	1/8"	10-32 UNF
124470118	1/8"	1/8
124470128	1/8"	1/4
124470210	5/32"	10-32 UNF
124470218	5/32"	1/8
124470228	5/32"	1/4
124470328	3/16"	1/4
124470410	1/4"	10-32 UNF
124470418	1/4"	1/8
124470428	1/4"	1/4
124470438	1/4"	3/8
124470518	5/16"	1/8
124470528	5/16"	1/4
124470618	3/8"	1/8
124470628	3/8"	1/4
124470638	3/8"	3/8
124470648	3/8"	1/2
124470728	1/2"	1/4
124470738	1/2"	3/8
124470748	1/2"	1/2

PNEUFIT® PUSH-IN FITTINGS

Inch Ø 1/8" to 1/2" O/D tube



Pneufit® Extended Swivel Male Elbow

Part Number	Tube O.D.	NPT Thread
124540218	5/32"	1/8
124540418	1/4"	1/8
124540428	1/4"	1/4
124540628	3/8"	1/4
124540638	3/8"	3/8



Pneufit® Swivel Female Elbow

Part Number	Tube O.D.	NPT Thread
124480118	1/8"	1/8"
124480218	5/32"	1/8
124480418	1/4"	1/8
124480428	1/4"	1/4
124480738	1/2"	3/8



Pneufit® Plug*

Part Number	Stem O.D.
120040100	1/8"
120040400	1/4"
120040600	3/8"

* Material: Nickel plated Brass



Pneufit® Swivel Male SideTee

Part Number	Tube O.D.	NPT or UNF Thrd
124680118	1/8"	1/8
124680210	5/32"	10-32 UNF
124680218	5/32"	1/8
124680418	1/4"	1/8
124680428	1/4"	1/4
124680438	1/4"	3/8
124680528	5/16"	1/4
124680618	3/8"	1/8
124680628	3/8"	1/4
124680638	3/8"	3/8
124680648	3/8"	1/2
124680748	1/2"	1/2



Pneufit® Swivel Male Tee

Part Number	Tube O.D.	NPT or UNF Thrd
124670118	1/8"	1/8
124670128	1/8"	1/4
124670210	5/32"	10-32 UNF
124670218	5/32"	1/8
124670228	5/32"	1/4
124670418	1/4"	1/8
124670428	1/4"	1/4
124670438	1/4"	3/8
124670518	5/16"	1/8
124670528	5/16"	1/4
124670618	3/8"	1/8
124670628	3/8"	1/4
124670638	3/8"	3/8
124670648	3/8"	1/2
124670728	1/2"	1/4
124670738	1/2"	3/8
124670748	1/2"	1/2

PNEUFIT® C

Composite and Pneufit® M fittings Inch Ø 1/8" to 1/2" O/D tube

- » Ready to use.
- » Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).
- » Nickel plated brass components.
- » Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads.
- » Internal and external hexagons on straight fittings.
- » Mounting holes on all union fittings.

Technical Data

Medium:

Compressed air

Operating pressure:

29.5" Hg vacuum up to 150 psi
(750 mm Hg to 10 bar)

Temperature:

32°F to 140°F (0°C to 60°C)

Tube types

Nylon 11 or 12
Polyurethane 85 or 95 durometer

Materials:

Body: PBT
Seals: NBR (silicone free)
u-packaging and O-rings
Threaded bodies:
nickel plated brass
Grab-ring: 301 stainless steel
Collar: nickel plated brass
Release sleeve and backing ring: POM
Thread sealant: Chemitech G-175L



Straight adapter
(external + internal hex)

Part Number	Tube O.D.	NPT or UNF Thread
C24250210	5/32	10/32 UNF
C24250218	5/32	1/8
C24250228	5/32	1/4
C24250238	5/32	3/8
C24250310	3/16	10/32 UNF
C24250318	3/16	1/8
C24250328	3/16	1/4
C24250338	3/16	3/8
C24250410	1/4	10/32 UNF
C24250418	1/4	1/8
C24250428	1/4	1/4
C24250438	1/4	3/8
C24250448	1/4	1/2
C24250518	5/16	1/8
C24250528	5/16	1/4
C24250538	5/16	3/8
C24250548	5/16	1/2
C24250618	3/8	1/8
C24250628	3/8	1/4
C24250638	3/8	3/8
C24250648	3/8	1/2
C24250718	1/2	1/8
C24250728	1/2	1/4
C24250738	1/2	3/8
C24250748	1/2	1/2



Straight adapter
(internal hex only)

Part Number	Tube O.D.	NPT or UNF Thread
C242A0210	5/32	10/32 UNF
C242A0218	5/32	1/8
C242A0228	5/32	1/4
C242A0310	3/16	10/32 UNF
C242A0318	3/16	1/8
C242A0328	3/16	1/4
C242A0410	1/4	10/32 UNF
C242A0418	1/4	1/8
C242A0428	1/4	1/4
C242A0518	5/16	1/8
C242A0528	5/16	1/4
C242A0538	5/16	3/8
C242A0618	3/8	1/8
C242A0628	3/8	1/4
C242A0638	3/8	3/8
C242A0648	3/8	1/2
C242A0728	1/2	1/4
C242A0738	1/2	3/8
C242A0748	1.2	1/2



Straight adapter
(female thread)

Part Number	Tube O.D.	NPT Thread
C24260218	5/32	1/8
C24260228	5/32	1/4
C24260318	3/16	1/8
C24260328	3/16	1/4
C24260418	1/4	1/8
C24260428	1/4	1/4
C24260438	1/4	3/8
C24260518	5/16	1/8
C24260528	5/16	1/4
C24260538	5/16	3/8
C24260548	5/16	1/2
C24260618	3/8	1/8
C24260628	3/8	1/4
C24260638	3/8	3/8
C24260648	3/8	1/2
C24260728	1/2	1/4
C24260738	1/2	3/8



Female bulkhead

Part Number	Tube O.D.	NPT Thread
C24320218	5/32	1/8
C24320418	1/4	1/8
C24320428	1/4	1/4
C24320628	3/8	1/4
C24320638	3/8	3/8
C24320728	1/2	1/4
C24320738	1/2	3/8
C24320748	1/2	1/2

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norgren.com

PNEUFIT® C

Composite and Pneufit® M fittings Inch Ø 1/8" to 1/2" O/D tube



90° Swivel elbow

Part Number	Tube O.D.	NPT or UNF Thread
C24470210	5/32	10/32 UNF
C24470218	5/32	1/8
C24470228	5/32	1/4
C24470310	3/16	10/32 UNF
C24470318	3/16	1/8
C24470328	3/16	1/4
C24470338	3/16	3/8
C24470410	1/4	10/32 UNF
C24470418	1/4	1/8
C24470428	1/4	1/4
C24470438	1/4	3/8
C24470518	5/16	1/8
C24470528	5/16	1/4
C24470538	5/16	3/8
C24470548	5/16	1/2
C24470618	3/8	1/8
C24470628	3/8	1/4
C24470638	3/8	3/8
C24470648	3/8	1/2
C24470728	1/2	1/4
C24470738	1/2	3/8
C24470748	1/2	1/2



90° Swivel elbow adapter (female)

Part Number	Tube O.D.	NPT or UNF Thread
C24480210	5/32	10/32 UNF
C24480218	5/32	1/8
C24480228	5/32	1/4
C24480310	3/16	10/32 UNF
C24480318	3/16	1/8
C24480328	3/16	1/4
C24480410	1/4	10/32 UNF
C24480418	1/4	1/8
C24480428	1/4	1/4
C24480438	1/4	3/8
C24480518	5/16	1/8
C24480528	5/16	1/4
C24480538	5/16	3/8
C24480628	3/8	1/4
C24480638	3/8	3/8
C24480648	3/8	1/2
C24480738	1/2	3/8
C24480748	1/2	1/2



Swivel tee adapter

Part Number	Tube O.D.	NPT or UNF Thread
C24670210	5/32	10/32 UNF
C24670218	5/32	1/8
C24670228	5/32	1/4
C24670310	3/16	10/32 UNF
C24670318	3/16	1/8
C24670328	3/16	1/4
C24670338	3/16	3/8
C24670410	1/4	10/32 UNF
C24670418	1/4	1/8
C24670428	1/4	1/4
C24670438	1/4	3/8
C24670518	5/16	1/8
C24670528	5/16	1/4
C24670538	5/16	3/8
C24670548	5/16	1/2
C24670618	3/8	1/8
C24670628	3/8	1/4
C24670638	3/8	3/8
C24670648	3/8	1/2
C24670728	1/2	1/4
C24670738	1/2	3/8
C24670748	1/2	1/2



90° Swivel elbow adapter (extended)

Part Number	Tube O.D.	NPT or UNF Thread
C24540210	5/32	10/32 UNF
C24540218	5/32	1/8
C24540228	5/32	1/4
C24540318	3/16	1/8
C24540328	3/16	1/4
C24540338	3/16	3/8
C24540410	1/4	10/32 UNF
C24540418	1/4	1/8
C24540428	1/4	1/4
C24540438	1/4	3/8
C24540518	5/16	1/8
C24540528	5/16	1/4
C24540538	5/16	3/8
C24540618	3/8	1/8
C24540628	3/8	1/4
C24540638	3/8	3/8
C24540648	3/8	1/2
C24540728	1/2	1/4
C24540738	1/2	3/8
C24540748	1/2	1/2



Swivel Y adapter

Part	Tube O.D.	NPT or UNF Thread
C24880210	5/32	10/32 UNF
C24880218	5/32	1/8
C24880228	5/32	1/4
C24880310	3/16	10/32 UNF
C24880318	3/16	1/8
C24880328	3/16	1/4
C24880338	3/16	3/8
C24880410	1/4	10/32 UNF
C24880418	1/4	1/8
C24880428	1/4	1/4
C24880438	1/4	3/8
C24880518	5/16	1/8
C24880528	5/16	1/4
C24880538	5/16	3/8
C24880548	5/16	1/2
C24880618	3/8	1/8
C24880628	3/8	1/4
C24880638	3/8	3/8
C24880648	3/8	1/2
C24880728	1/2	1/4
C24880738	1/2	3/8
C24880748	1/2	1/2



Swivel side tee adapter

Part Number	Tube O.D.	NPT or UNF Thread
C24680210	5/32	10/32 UNF
C24680218	5/32	1/8
C24680228	5/32	1/4
C24680310	3/16	10/32 UNF
C24680318	3/16	1/8
C24680328	3/16	1/4
C24680338	3/16	3/8
C24680410	1/4	10/32 UNF
C24680418	1/4	1/8
C24680428	1/4	1/4
C24680438	1/4	3/8
C24680518	5/16	1/8
C24680528	5/16	1/4
C24680538	5/16	3/8
C24680548	5/16	1/2
C24680618	3/8	1/8
C24680628	3/8	1/4
C24680638	3/8	3/8
C24680648	3/8	1/2
C24680728	1/2	1/4
C24680738	1/2	3/8
C24680748	1/2	1/2

PNEUFIT® C

Push-in fittings Inch Ø 1/8" to 1/2" O/D tube



Swivel tee adapter

Part Number	Tube O.D.	NPT or UNF Thrd
C246C0218	5/32	1/8
C246C0318	3/16	1/8
C246C0328	3/16	1/4
C246C0418	1/4	1/8
C246C0428	1/4	1/4 UNF
C246C0518	5/16	1/8
C246C0528	5/16	1/4
C246C0538	5/16	3/8
C246C0628	3/8	1/4
C246C0638	3/8	3/8
C246C0738	1/2	3/8
C246C0748	1/2	1/2



Straight union

Part Number	Tube O.D.
C20200200	5/32
C20200300	3/16
C20200400	1/4
C20200500	5/16
C20200600	3/8
C20200700	1/2



Stem union

Part Number	Stem O.D.
C20220200	5/32
C20220300	3/16
C20220400	1/4
C20220500	5/16
C20220600	3/8
C20220700	1/2



Banjo

Part	Tube O.D.	NPT or UNF Thread
C2R510210	5/32	10/32 UNF
C2R510218	5/32	1/8
C2R510410	1/4	10/32 UNF
C2R510418	1/4	1/8
C2R510428	1/4	1/4
C2R510518	5/16	1/8
C2R510528	5/16	1/4
C2R510628	3/8	1/4
C2R510638	3/8	3/8
C2R510648	3/8	1/2
C2R510738	1/2	3/8
C2R510748	1/2	1/2



Bulkhead union

Part Number	Tube O.D.	Metric Thread
C20290200	5/32	M12*1.0p
C20290300	3/16	M14*1.0p
C20290400	1/4	M14*1.0p
C20290500	5/16	M16*1.0p
C20290600	3/8	M20*1.0p
C20290700	1/2	M22*1.0p



Stem Union (unequal)

Part Number	Large Stem O.D.	Small Stem O.D.
C20220302	3/16	5/32
C20220402	1/4	5/32
C20220403	1/4	3/16
C20220504	5/16	1/4
C20220604	3/8	1/4
C20220605	3/8	5/16
C20220706	1/2	3/8



Cap (female plug)

Part Number	Tube O.D.
C20120200	5/32
C20120300	3/16
C20120400	1/4
C20120500	5/16
C20120600	3/8
C20120700	1/2



Plug

Part Number	Stem O.D.
C00040400	5/32
C20040300	3/16
C20040400	1/4
C20040600	3/8
C20040700	1/2



Banjo with top port

Part Number	Tube O.D.	NPT or UNF Thread
C2E510218	5/32	1/8
C2D510410	1/4	10/32 UNF
C2E510418	1/4	1/8
C2F510428	1/4	1/4
C2F510528	5/16	1/4
C2F510628	3/8	1/4
C2G510638	3/8	3/8
C2G510738	1/2	3/8



Stem tee

Part Number	Tube O.D.	Stem O.D.
C20630200	5/32	5/32
C20630300	3/16	3/16
C20630400	1/4	1/4
C20630500	5/16	5/16
C20630600	3/8	3/8
C20630700	1/2	1/2



Union cross

Part Number	Tube O.D.
C20900200	5/32
C20900300	3/16
C20900400	1/4
C20900500	5/16
C20900600	3/8
C20900700	1/2

PNEUFIT® C

Push-in fittings Inch Ø 1/8" to 1/2" O/D tube



Union elbow

Part Number	Tube O.D.
C20400200	5/32
C20400300	3/16
C20400400	1/4
C20400500	5/16
C20400600	3/8
C20400700	1/2



Stem side tee

Part Number	Tube O.D.	Stem O.D.
C20640200	5/32	5/32
C20640300	3/16	3/16
C20640400	1/4	1/4
C20640500	5/16	5/16
C20640600	3/8	3/8
C20640700	1/2	1/2



Union Tee (unequal)

Part Number	Large Tube O.D.	Small Tube O.D.
C206A0402	1/4	5/32
C206A0504	5/16	1/4
C206A0604	3/8	1/4
C206A0605	3/8	5/16
C206A0704	1/2	1/4
C206A0706	1/2	3/8



Straight Union (unequal)

Part Number	Large Tube O.D.	Small Tube O.D.
C20200302	3/16	5/32
C20200402	1/4	5/32
C20200403	1/4	3/16
C20200504	5/16	1/4
C20200604	3/8	1/4
C20200605	3/8	5/16
C20200706	1/2	3/8



Stem elbow

Part Number	Tube O.D.	Stem O.D.
C20430200	5/32	5/32
C20430300	3/16	3/16
C20430400	1/4	1/4
C20430500	5/16	5/16
C20430600	3/8	3/8
C20430700	1/2	1/2



Union Y

Part Number	Tube O.D.
C20820200	5/32
C20820300	3/16
C20820400	1/4
C20820500	5/16
C20820600	3/8
C20820700	1/2



Stem Side Tee (unequal)

Part Number	Tube O.D.	Stem O.D.
C20640402	1/4	5/32
C20640504	5/16	1/4
C20640604	3/8	1/4
C20640605	3/8	5/16



Stem Reducer (stem/tube)

Part Number	Tube O.D.	Stem O.D.
C20230402	1/4	5/32
C20230504	5/16	1/4
C20230604	3/8	1/4
C20230605	3/8	5/16
C20230704	1/2	1/4
C20230706	1/2	3/8



Union tee

Part Number	Tube O.D.
C20600200	5/32
C20600300	3/16
C20600400	1/4
C20600500	5/16
C20600600	3/8
C20600700	1/2



Stem Y

Part Number	Stem O.D.	Tube O.D.
C20840202	5/32	5/32
C20840300	3/16	3/16
C20840404	1/4	1/4
C20840505	5/16	5/16
C20840600	3/8	3/8
C20840700	1/2	1/2



Stem Y (unequal)

Part number	Stem O.D.	Tube O.D.
C20840402	1/4	5/32
C20840504	5/16	1/4
C20840604	3/8	1/4
C20840605	3/8	5/16



Union Y (unequal)

Part Number	Large Tube O.D.	Small Tube O.D.
C20820302	3/16	5/32
C20820402	1/4	5/32
C20820403	1/4	3/16
C20820504	5/16	1/4
C20820604	3/8	1/4
C20820605	3/8	5/16
C20820706	1/2	3/8



Tube to tube shut-off valve

Part Number	Tube O.D.
C20GF0400	1/4
C20GF0500	5/16
C20GF0600	3/8
C20GF0700	1/2



Tube to thread shut-off valve

Part Number	Tube O.D.	Thread NPT
C24GH0418	1/4	1/8
C24GH0428	1/4	1/4
C24GH0438	1/4	3/8
C24GH0628	3/8	1/4
C24GH0638	3/8	3/8



Thread to tube shut-off valve

Part Number	Tube O.D.	Thread NPT
C24GJ0428	1/4	1/4
C24GJ0628	3/8	1/4
C24GJ0438	1/4	3/8
C24GJ0638	3/8	3/8
C24GJ0748	1/2	1/2

PNEUFIT® M

Miniature fittings Inch Ø 1/8" to 1/2" O/D tube



Straight adapter
(external + internal hex)

Part Number	Tube O.D.	NPT or UNF Thread
M24250110	1/8	10/32 UNF
M24250116	1/8	1/16
M24250118	1/8	1/8
M24250128	1/8	1/4
M24250210	5/32	10/32 UNF
M24250216	5/32	1/16
M24250218	5/32	1/8
M24250410	1/4	10/32 UNF
M24250416	1/4	1/16
M24250418	1/4	1/8



90° Swivel Elbow Adapter

Part Number	Tube O.D.	NPT or UNF Thread
M24470110	1/8	10/32 UNF
M24470116	1/8	1/16
M24470118	1/8	1/8
M24470128	1/8	1/4
M24470210	5/32	10/32 UNF
M24470216	5/32	1/16
M24470218	5/32	1/8
M24470410	1/4	10/32 UNF
M24470416	1/4	1/16
M24470418	1/4	1/8



Straight Union

Part Number	Tube O.D.
M20200100	1/8
M20200200	5/32
M20200400	1/4



Stem Reducer
(stem/tube)

Part Number	Tube O.D.	Stem O.D.
C20230201	5/32	1/8
C20230401	1/4	1/8



Straight adapter
(internal hex only)

Part Number	Tube O.D.	NPT or UNF Thread
M242A0110	1/8	10/32 UNF
M242A0116	1/8	1/16
M242A0118	1/8	1/8
M242A0210	5/32	10/32
M242A0216	5/32	1/16
M242A0218	5/32	1/8
M242A0410	1/4	10/32 UNF
M242A0416	1/4	1/16
M242A0418	1/4	1/8



Swivel Tee Adapter

Part Number	Tube O.D.	NPT or UNF Thread
M24670110	1/8	10/32 UNF
M24670118	1/8	1/8
M24670210	5/32	10/32 UNF
M24670216	5/32	1/16
M24670218	5/32	1/8
M24670410	1/4	10/32 UNF
M24670416	1/4	1/16
M24670418	1/4	1/8



Union Elbow

Part Number	Tube O.D.
M20400100	1/8
M20400200	5/32
M20400400	1/4



Stem Expander
(stem/tube)

Part Number	Tube O.D.	Stem O.D.
C20230104	1/8	1/4
C20230204	5/32	1/4



Straight Union
(unequal)

Part Number	Large Tube O.D.	Small Tube O.D.
M20200201	5/32	1/8
M20200401	1/4	1/8
M20200402	1/4	5/32



Straight adapter
(female thread)

Part Number	Tube O.D.	NPT or UNF Thread
M24260118	1/8	1/8
M24260128	1/8	1/4
M24260210	5/32	10/32 UNF



Swivel Side Tee Adapter

Part Number	Tube O.D.	NPT or UNF Thread
M24680110	1/8	10/32 UNF
M24680118	1/8	1/8
M24680218	5/32	1/8
M24680410	1/4	10/32 UNF
M24680418	1/4	1/8



Union Tee

Part Number	Tube O.D.
M20600100	1/8
M20600200	5/32
M20600400	1/4

PNEUFIT® D FITTINGS

Inch Ø 5/32" to 1/2" O/D tube

- » Ready to use
- » Manufactured from NSF (51 & 61) approved materials for use in food and water applications.
- » Releasable stainless-steel grab-ring offers fast, secure assembly and disassembly of nylon, PU and PE tubing.
- » Suitable for use in medical and analytical equipment including fluid and precision gas control.
- » Appropriate for inert gas and industrial air applications.

Online at norgren.com

Technical Data

Medium:

Air and liquids

Operating pressure and temperature:

Vacuum up to 29.5" Hg (750 mm Hg)

5/32" to 5/16", -4°F to 68°F (-20° to 20°C), 230 psig (16 bar)

3/8" to 1/2", -4°F to 68°F (-20° to 20°C), 170 psig (12 bar)

5/32" to 5/16", 68°F to 149°F (20° to 65°C), 150 psig (10 bar)

3/8" to 1/2", 68°F to 149°F (20° to 65°C), 100 psig (7 bar)

Materials:

Body: Acetal
Seals: Food and water grade NBR
Collet: PBT with Stainless Steel teeth

Tube sizes:

5/32", 3/16", 1/4", 5/16", 3/8" and 1/2"

Thread sizes:

1/8", 1/4", 3/8", 1/2", 5/8" NPTF

Tube types:

Nylon, Polyurethane, Polyethylene



Straight Adapter

Part Number	Tube O.D.	Thread NPTF
D24250418	1/4	1/8
D24250428	1/4	1/4
D24250438	1/4	3/8
D24250628	3/8	1/4
D24250638	3/8	3/8
D24250738	1/2	3/8
D24250748	1/2	1/2



Straight Stem Adapter

Part Number	Tube O.D.	Thread NPTF
D24150418	1/4	1/8
D24150428	1/4	1/4
D24150628	3/8	1/4
D24150638	3/8	3/8
D24150738	1/2	3/8



Union Tee

Part Number	Tube O.D.
D20600400	1/4
D20600600	3/8
D20600700	1/2



Hand Valve (Union)

Part Number	Tube O.D.
D20GR0700	1/2



Elbow Adapter

Part Number	Tube O.D.	Thread NPTF
D24450418	1/4	1/8
D24450628	3/8	1/4
D24450748	1/2	1/2



Bulkhead Union

Part Number	Tube O.D.	Thread Metric
D20290400	1/4	M17X1.5
D20290600	3/8	M24X1.75
D20290700	1/2	M27X2.0



Union Elbow

Part Number	Tube O.D.
D20400400	1/4
D20400600	3/8
D20400700	1/2



Straight Union

Part Number	Tube O.D.
D20200400	1/4
D00200600	3/8



Stem Elbow

Part Number	Stem O.D.	Tube O.D.
D20430200	5/32	5/32
D20430400	1/4	1/4
D20430600	3/8	3/8
D20430700	1/2	1/2



Union Y

Part Number	Tube O.D.
D20820400	1/4
D20820600	3/8
D20820700	1/2

PNEUFIT® PUSH-IN FITTINGS

Ø4 mm to 12 mm tube Metric

- » Compact units featuring retained collets and positive tube anchorage.
- » Silicone free 'O'-ring seals.
- » Non-PTFE based thread sealant on all BSP taper threads.
- » Easy tube insertion for rapid assembly.
- » Internal hexagon on straight adaptors allows assembly in confined spaces.
- » Wide range of types available.
- » Reliable and corrosion resistant.

Technical Data

Fluid:

Compressed air, nitrogen, inert and non-combustible gases compatible with materials of construction. For other types of fluids or compressed gases, please consult factory.

Working Pressure:

750 mm Hg to 18 bar
(29.5" Hg vacuum to 260 psig)
Note: Flow Controls working pressures:
.3 to 10 bar (5 to 150 psig)

Working Temperature:

-20°C to 80°C (0°F to 175°F)
Request FPM option on selected part numbers for extended temperature range: -20°C to 180°C (0° to 350°F)



Materials of Construction:

Body, swivel fitting and collet: Nickel plated brass
O-ring: Silicone free Nitrile
Sealing washer (parallel male threads): Silicon free nitrile
Tubing: Nylon 11 or Nylon 12, Polyurethane (95 durometer or above) and LDPE (Low Density Polyethylene).
Note: Lower durometer polyurethane may be used, however, an internal tube support is required to prevent internal collapse of the tube wall.
Thread Sealant: Precote 5 thread sealant is factory applied to the circumference of tapered male threads (ISO R).



Union

Part number	Tube O.D.
100200400	4
100200500	5
100200600	6
100200800	8
100201000	10
100201200	12



Bulkhead Union

Part number	Tube O.D.	Metric thread	Panel hole ø
100290400	4	M10 x 1.0	10.5
100290600	6	M14 x 1.0	10.5
100290800	8	M16 x 1.0	11.5
100291000	10	M18 x 1.0	13.0
100291200	12	M20 x 1.0	14.5



Union Tee

Part number	Tube O.D.
100600400	4
100600600	6
100600800	8
100601000	10
100601200	12



Union Elbow

Part number	Tube O.D.
100400400	4
100400600	6
100400800	8
1004001000	10
1004001200	12



Conversions Union (Inch tube to mm tube)

Part number	Tube O.D. inch	Tube O.D. mm
120200200	5/32	4
120370406	1/4	6
120200500	5/16	8
120370610	3/8	10
120370712	1/2	12



ISO G Male Adapter

Part number	Tube O.D.	ISO G or Metric thread
102250405	4	M5 x .8
102250418	4	1/8
102250428	4	1/4
102250605	6	M5 x .8
102250618	6	1/8
102250628	6	1/4
102250818	8	1/8
102250828	8	1/4
102251018	10	1/8
102251028	10	1/4

Pneufit® ISO G Male Connector



All straight male connectors have an internal hex for the use of an Allen Wrench to allow the fitting to be mounted in any position. This also permits close porting not possible with a standard open end or socket wrench.



ISO R Male Fixed Elbow

Part number	Tube O.D.	ISO R thread
101450418	4	1/8
101450618	6	1/8
101450628	6	1/4
101450818	8	1/8
101450828	8	1/4



Union "Y"

Part number	Tube O.D.
120820200	4
120820500	8

➔ Online at norgren.com

PNEUFIT® PUSH-IN FITTINGS

Ø4mm to 12mm tube Metric



Male Adapter- Conversion (Inch O.D. Tube to ISO R (male) Thread)

Part number	Tube O.D.	ISO R thread
101250418	4	1/8
101250428	4	1/4
101250518	5	1/8
101250618	6	1/8
101250628	6	1/4
101250818	8	1/8
101250828	8	1/4
101250838	8	3/8
101251018	10	1/8
101251028	10	1/4
101251038	10	3/8



All straight male connectors have an internal hex for the use of an Allen Wrench to allow the fitting to be mounted in any position. This also permits close porting not possible with a standard open end or socket wrench.



Male Adapter

Part number	Tube O.D.	NPT thread
124250210	4	10-32
124250218	4	1/8
124250228	4	1/4
104250610	6	10-32
104250618	6	1/8
104250628	6	1/4
124250518	8	1/8
124250528	8	1/4
124250538	8	3/8
104251018	10	1/8
104251028	10	1/4
104251038	10	3/8
104251228	12	1/4



All straight male connectors have an internal hex for the use of an Allen Wrench to allow the fitting to be mounted in any position. This also permits close porting not possible with a standard open end or socket wrench.



ISO G Swivel Male Elbow

Part number	Tube O.D.	ISO G or Metric thread
102470405	4	M5 x .8
102470418	4	1/8
102470428	4	1/4
102470528	5	1/4
102470605	6	M5 x .8
102470618	6	1/8
102470628	6	1/4
102470818	8	1/8
102470828	8	1/4
102470838	8	3/8
102471018	10	1/8
102471028	10	1/4
102471038	10	3/8
102471228	12	1/4
102471038	12	3/8



ISO R Swivel Male Elbow

Part number	Tube O.D.	ISO R thread
101470418	4	1/8
101470618	6	1/8
101470628	6	1/4
101470818	8	1/8
101470828	8	1/4
101471018	10	1/8
101471028	10	1/4
101471038	10	3/8
101471048	10	1/2
101471228	12	1/4
101471238	12	3/8

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

PNEUFIT® C

Composite and Pneufit® M fittings Ø4mm to 12mm tube Metric

- » Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).
- » Nickel plated brass components.
- » Pre-applied thread sealant on all taper threads and recessed captive O-ring on parallel threads.
- » Internal and external hexagons on straight fittings.
- » Immediate quality sealing using silicone free U-packing.

→ Online at
norgren.com



ISO R Male connector

Part number	Tube O.D.	ISO R Thread
C01250418	4	1/8" R
C01250428	4	1/4" R
C01250618	6	1/8" R
C01250628	6	1/4" R
C01250638	6	3/8" R
C01250818	8	1/8" R
C01250828	8	1/4" R
C01250838	8	3/8" R
C01250848	8	1/2" R
C01251018	10	1/8" R
C01251028	10	1/4" R
C01251038	10	3/8" R
C01251048	10	1/2" R
C01251228	12	1/4" R
C01251238	12	3/8" R
C01251248	12	1/2" R



90° Swivel elbow

Part number	Tube O.D.	Metric or ISO G Thread
C02470405	4	M5
C02470605	6	M5
C02470606	6	M6
C02470618	6	1/8" G
C02470628	6	1/4" G
C02470818	8	1/8" G
C02470828	8	1/4" G

Technical Data

Medium:

Compressed air

Operating pressure:

750mm Hg vacuum, up to 10 bar

Temperature:

0 to 60°C

Medium:

compressed air

Tube sizes:

Standard sizes:
4, 6, 8, 10, 12, 16 mm
Miniature sizes:
3, 4, and 6 mm

Thread sizes:

Standard sizes:
M5, M6, 1/8, 1/4, 3/8 and 1/2 inch, ISO G and ISO R
Miniature sizes:
M3, M5 and 1/8 inch ISO R

Tube types:

Nylon 11 or 12
Polyurethane 85, 95 or 98 durometer

Materials:

Body: PBT
Seals: NBR (silicone free)
u-packing and O-rings
Threaded bodies: nickel plated brass
Release sleeve and backing ring: POM
Grab-ring: stainless steel
Collar: nickel plated brass
Thread sealant: Chemiseal G 175



Swivel tee adapter

Part number	ISO R Thread	Tube O.D.
C01670618	1/8" R	6
C01670628	1/4" R	6
C01670828	1/4" R	8
C01671028	1/4" R	10



90° Swivel elbow

Part number	Tube O.D.	ISO R Thread
C01470418	4	1/8" R
C01470428	4	1/4" R
C01470618	6	1/8" R
C01470628	6	1/4" R
C01470638	6	3/8" R
C01470648	6	1/2" R
C01470818	8	1/8" R
C01470828	8	1/4" R
C01470838	8	3/8" R
C01470848	8	1/2" R
C01471018	10	1/8" R
C01471028	10	1/4" R
C01471038	10	3/8" R
C01471048	10	1/2" R
C01471228	12	1/4" R
C01471238	12	3/8" R
C01471248	12	1/2" R



ISO G Male connector

Part number	Tube O.D.	Metric or ISO G Thread
C02250405	4	M5
C02250418	4	1/8" G
C02250605	6	M5
C02250606	6	M6
C02250618	6	1/8" G
C02250628	6	1/4" G
C02250818	8	1/8" G
C02250828	8	1/4" G
C02251038	10	3/8" G
C02251048	10	1/2" G



Banjo Flow Control (mm) (out)

Part number	Tube O.D.	Metric or ISO G Thread
COK510405	4.0	M5x0.8p
COK510605	6.0	M5x0.8p
COK510618	6.0	G 1/8
COK510628	6.0	G 1/4

PNEUFIT® C

Composite and Pneufit® M fittings Ø4mm to 12mm tube Metric



Banjo Flow Control (mm) ^(out)

Part number	Tube O.D.	ISO R Thread
C0TAO0418	4.0	1/8 R
C0TAO0618	6.0	1/8 R
C0TAO0628	6.0	1/4 R
C0TAO0638	6.0	3/8 R
C0TAO0818	8.0	1/8 R
C0TAO0828	8.0	1/4 R
C0TAO0838	8.0	3/8 R



In line flow control

Part number	Tube O.D.
C00GE0600	6
C00GE0800	8



Straight union

Part number	Tube O.D.
C00200400	4
C00200600	6
C00200800	8
C00201000	10
C00201200	12



Union Y

Part number	Tube O.D.
C00820400	4
C00820600	6
C00820800	8
C00821000	10



Plug

Part number	Stem O.D.
C00040400	4
C00040600	6
C00040800	8
C00041000	10
C00041200	12



Union elbow

Part number	Tube O.D.
C00400400	4
C00400600	6
C00400800	8
C00401000	10
C00401200	12



Union tee

Part number	Tube O.D.
C00600400	4
C00600600	6
C00600800	8
C00601000	10
C00601200	12



Straight union (unequal)

Part number	Large Tube O.D.	Small Tube O.D.
C00200604	6	4
C00200806	8	6
C00201008	10	8
C00201210	12	10



Straight adapter (external + internal hex)

Part number	Tube O.D.	Metric and ISO G Thread
M02250403	4	M3
M02250405	4	M5
M02250406	4	M6
M01250418	4	1/8"
M02250605	6	M5
M02250606	6	M6
M01250618	6	1/8"



90° Swivel Elbow Adapter

Part number	Tube O.D.	Metric and ISO G Thread
M02470403	4	M3
M02470405	4	M5
M02470406	4	M6
M01470418	4	1/8"
M02470605	6	M5
M02470606	6	M6
M01470618	6	1/8"



Straight Union

Part number	Tube O.D.
M00200400	4
M00200600	6

PNEUFIT® PUSH-IN ELBOW

Banjo Flow Controls 1/8" to 1/2" O/D tube

- » High maximum flow, progressive flow gain, and positive tube grip
- » Silicone free 'O'-ring seals
- » Easy tube insertion for rapid assembly
- » For simple and quick assembly of pneumatic circuits
- » Wide range available
- » Reliable and corrosion resistant

Technical Data

Fluid:

Compressed air

Operating pressure:

5 to 150 psig (.3 to 10 bar) unless otherwise stated (dependent upon tubing specification).

Temperature range:

0° to 175°F (-20° to 80°C).

Tube types:

Nylon 11 or 12, polyurethane (95 durometer and 85 durometer on C0 and C2 models)

Materials:

Body: Nickel plated brass, glass filled nylon, or PBT
Collet: Nickel plated brass
Grabring: stainless steel
'O'-ring: Silicone free nitrile rubber
Sealing washer (parallel threads): Nitrile 'O'-ring
Thread sealant: non-PTFE



C2VAO Banjo Flow Control (Regulating out)



Part Number	Tube O.D.	NPT or UNF Thread
C2VA00110	1/8	10/32 UNF
C2VA00210	5/32	10/32 UNF
C2VA00310	3/16	10/32 UNF
C2VA00410	1/4	10/32 UNF
C2VA00218	5/32	1/8
C2VA00318	3/16	1/8
C2VA00418	1/4	1/8
C2VA00518	5/16	1/8
C2VA00228	5/32	1/4
C2VA00328	3/16	1/4
C2VA00338	3/16	3/8
C2VA00428	1/4	1/4
C2VA00528	5/16	1/4
C2VA00628	3/8	1/4
C2VA00438	1/4	3/8
C2VA00538	5/16	3/8
C2VA00638	3/8	3/8
C2VA00738	1/2	3/8
C2VA00548	5/16	1/2
C2VA00648	3/8	1/2
C2VA00748	1/2	1/2
COSA00418	4mm	R 1/8
COSA00618	6mm	R 1/8
COSA00818	8mm	R 1/8
COSA00628	6mm	R 1/4
COSA00828	8mm	R 1/4

C2WAO Banjo Flow Control (Regulating in)

Part Number	Tube O.D.	NPT or UNF Thread
C2WA00110	1/8	10/32 UNF
C2WA00210	5/32	10/32 UNF
C2WA00410	1/4	10/32 UNF
C2WA00218	5/32	1/8
C2WA00318	3/16	1/8
C2WA00418	1/4	1/8
C2WA00518	5/16	1/8
C2WA00228	5/32	1/4
C2WA00328	3/16	1/4
C2WA00428	1/4	1/4
C2WA00528	5/16	1/4
C2WA00628	3/8	1/4
C2WA00438	1/4	3/8
C2WA00638	3/8	3/8
C2WA00738	1/2	1/2
C2WA00648	3/8	1/2
C2WA00748	1/2	1/2



VAO Series Elbow flow control - hand adjustment NPT thread to NPTF thread (aluminum body) 12VAO

Part Number	Tube O.D.	NPT or UNF Thread
12VA01818	1/8 NPTF	1/8 NPTF
12VA02828	1/4 NPTF	1/4 NPTF
12VA03838	3/8 NPTF	3/8 NPTF
12VA04848	1/2 NPTF	1/2 NPTF



VBO Series Banjo flow control - screw driver adjustment NPTF thread to NPT thread 12VBO

Part Number	NPT Female	NPT Male
12VBO1818	1/8 NPTF	1/8 NPT
12VBO2828	1/4 NPTF	1/4 NPT
12VBO4848	3/8 NPTF	3/8 NPT



VBO Series Banjo flow control - screw driver adjustment Inch O/D tube to NPT thread 12VBO

Part Number	Tube O.D.	NPT or UNF Thread
12VBO0418	1/4	1/8 NPTF
12VBO0428	1/4	1/4 NPTF
12VBO0628	3/8	1/4 NPTF
12VBO0638	3/8	3/8 NPTF

Online at
norgren.com

PUSH-IN NON-RETURN VALVES

C20G SERIES, Ø 5/32" TO 3/8" O/D TUBE

- » High flow performance
- » Immediate quality sealing using silicone free U-packing.

C20G and C00G

PIF/PIF Part Number	Function
C20GL0200	tube/tube
C20GL0400	tube/tube
C20GL0500	tube/tube
C20GL0600	tube/tube
C00GL0400	tube/tube
C00GL0600	tube/tube
C00GL0800	tube/tube

* Available only with collet tube connection

Technical Data

Medium:

Compressed air

Operating pressure:

3 to 150 psig (.2 to 10 bar)

Fluid/Ambient temperature:

32°F to 140°F (0°C to 60°C)
Air supply must be dry enough to avoid ice formation at temperatures below 35°F

Tube size:

5/32, 1/4, 5/16, 3/8, 1/2 inch
Release buttons in grey
4, 6, 8 mm
Release buttons in red

Tubing type:

Nylon 11 or 12
Polyurethane 85, 95
or 98 durometer

Materials

Body: PBT,
tube Ø 3/8 & 1/2 inch,
10 & 12 mm aluminum
Seals: NBR (silicone free)
u-packing and O-rings
Grab-ring: stainless steel
Collar: ZNDC
Release sleeve and
backing ring: POM



NON-RETURN VALVES

T55 AND T56 SERIES, IN-LINE 1/8" TO 1/2" NPT

- » Permit free flow of air in one direction only
- » Simple, reliable design
- » Silicone free
- » Low cracking pressure

T55 Series

Part Number NPT	Port Size	Flow Factor Cv**
T55A1800	1/8	0.59
T55A2800	1/4	1.35
T55A3800	3/8	2.20
T55A4800	1/2	3.70

** Cv measured in US gal/min.

T56 Series

Model NPT	Port Size	Flow Factor Cv**
T56A1800	1/8	0.59

** Cv measured in US gal/min.

Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

1.5 to 145 psig (0.1 to 10 bar)

Operating temperature:

0°F to 175°F* (-20°C to +80°C)

*Consult our Technical Service for use below 35°F (+2°C)

Materials

Body: aluminum - **T55**
Brass - **T56**
O-ring: nitrile rubber
Valve: POM
Spring: stainless steel



➔ Online at norgren.com

HEAVY DUTY FLOW CONTROLS, UNI-DIRECTIONAL

C/800 SERIES, IN-LINE – 1/8" TO 1" NPT

- » Line mounted general purpose regulators
- » Captive regulating needle will not blow out when unscrewed
- » Calibrated adjusting knob, can be locked
- » Suitable for wall mounting
- » High operating pressure

Technical Data

Medium:
Compressed air, filtered, lubricated and non-lubricated

Operating pressure:
5 to 230 psig (0.3 to 16 bar)

Operating temperature:
0°F to 175°F (-20°C to + 80°C)
(Alternative models to 300°F [150°C])
Consult our Technical Service for use below 35°F (+2°C)

Materials
C/836, C/837, C/839:
Body, adjusting knob and locking ring: brass
C/840, C/855:
Body, adjusting knob and locking ring: aluminum
Seals: nitrile rubber.



C/800

Part Number	Port NPT	Thread NPT	Max. Regulating Flow Cv	Max. Free Flow Cv
C/837	1/4	1/4	0.49	1.0
C/839	1/2	1/2	2.6	3.6
C/840	3/4	3/4	3.7	6.5

IN-LINE FLOW REGULATORS, UNI-DIRECTIONAL

C20G SERIES, IN-LINE - Ø 1/8 TO 1/2" O/D INCH TUBE

- » High flow performance
- » In-line or panel mounting
- » Adjustment can be locked
- » Captive regulator needle will not blow out when unscrewed
- » Nickel plated brass components provide corrosion and contamination resistance and an extended life.
- » Immediate quality sealing using silicone free U-packing.

Technical Data

Medium:
Compressed air

Operating pressure:
150 psi (10 bar) max.

Fluid/Ambient temperature:
0°F to 140°F (-20°C to 60°C)
Air supply must be dry enough to avoid ice formation at temperatures below 35°F

Tube size:
5/32, 1/4, 5/16, 3/8, 1/2 inch
Release buttons in grey

Tube types:
Nylon 11 or 12
Polyurethane 85,
95 or 98 durometer

Materials:
Body: PBT
Seals: NBR (silicone free)
u-packing and O-rings
Grab-ring: stainless steel
Collar: ZNDC
Release sleeve and backing ring: POM



C20GE In-line flow control

Part Number	Ø (inch)
C20GE0200	5/32"
C20GE0400	1/4"
C20GE0500	5/16"
C20GE0600	3/8"
C20GE0700	1/2"

C20GP In-line and panel mount flow control

Part Number	Ø (inch)
C20GP0200	5/32"
C20GP0400	1/4"

➔ Online at norgren.com

BLOCK FORM FLOW CONTROLS

T1000 SERIES, UNI-DIRECTIONAL – 1/8" TO 1/2" NPT

- » Compact size/low weight/ in-line units
- » High flow performance
- » Suitable for panel and wall mounting
- » Adjustment can be locked
- » Captive regulator needle will not blow out when unscrewed
- » Adjusting knob position line

→ Online at norgren.com

T1000

Part Number	Cv Regulating NPT port	Cv Free Flow NPT port	Thread NPT
T1000A1800	0.14	0.37	1/8
T1000A2800	0.32	0.69	1/4
T1000A3800	1.00	1.45	3/8
T1000A4800	1.60	1.90	1/2

Part Number	Cv Regulating NPT port	Cv Free Flow NPT port	Thread BSPP
T1000C1800	0.14	0.37	1/8
T1000C2800	0.32	0.69	1/4
T1000C3800	1.00	1.45	3/8
T1000C4800	1.60	1.90	1/2

Technical Data

Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gases

Operating pressure:

15 to 145 psig (1-10 bar)

Operating temperature:

0° to 175°F* (-20° to 80°C)

*Consult our Technical Service for use below 35°F (2°C)

Materials:

Aluminum alloy body, Nitrile seals, brass needle and internal parts, external parts in aluminum alloy.



IN-LINE EXCESS FLOW SHUT-OFF VALVES

T60 AIR FUSES, 1/4 TO 1-1/2" NPT

- » Assists in complying with safety regulations
- » Tamper proof
- » Compact and safe design
- » Low pressure drop
- » Automatically resets after failure correction
- » High corrosion resistance
- » High air pressure rating

Technical Data

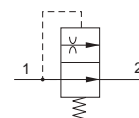
Medium:
Compressed air, filtered, lubricated and non lubricated inert gases

Operating pressure:
Maximum 232 psi (16 bar)
Minimum according to hose length
Drop pressure at shut-off flow:
2 to 4.5 psi (0.14 or 0.3 bar)

Mounting:
In-line two way valve. To be inserted between fixed air supply and flexible hose air line. See guidelines for typical installation.

Materials:
Body: aluminum
Internal parts: brass
Spring: stainless steel

Operating temperature:
0°** to 175° F (-20° to 80°C)
**Consult our Technical Service for use below 35°F (2°C). At low temperature ensure air fuse is not subjected to freezing conditions which may prevent its function.



T60

Part Number	Port size NPT	Drop pressure at shut off flow (psi)	Shut off flow rate at 100 psi	Flow at 100 psi DP 1 psi (scfm)
T60A2890	1/4"	2.0	17.6	13.8
T60A2891	1/4"	4.4	29.7	13.8
T60A3890	3/8"	2.0	41.1	28.6
T60A3891	3/8"	4.4	68.2	28.6
T60A4890	1/2"	2.0	68.2	49.2
T60A4891	1/2"	4.4	102.3	49.2
T60A6890	3/4"	2.0	102.3	91.1
T60A6891	3/4"	4.4	169.5	91.1
T60A8890	1"	2.0	195.0	144
T60A8891	1"	4.4	271.0	144
T60AB890	1-1/2"	2.0	394.0	307
T60AB891	1-1/2"	4.4	568.0	307

SHUTTLE VALVES

1/8" to 1/4" NPT

- » Allows two independent signal sources to be connected to a common pilot line
- » Can be used to perform an 'OR' logic function
- » Selects the highest of two applied pressures
- » Can be combined to operate from three or more sources
- » Valves can be ganged together

Technical Data

Fluid:
Compressed air, filtered, lubricated and non-lubricated, inert gases

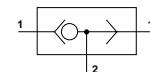
Operation:
Shuttle valve

Mounting:
Through holes in valve body

Operating Pressure:
10 to 145 psi (0.7 - 10 bar)

Materials:
Body: Zinc
Ball: Nitrile
Seat: Brass

Operating Temperature:
0° to 175°F (-20°* to +80°C)
*Consult our Technical Service for use below 35°F (2°C)



Shuttle Valves

Product Number	Port size NPT	Flow Factor Cv
T65A1800	1/8"	0.42
T65A2800	1/4"	0.64

NPT according to ANSI B1.20.1

➔ Online at norgren.com

QUICK EXHAUST VALVES

T70 SERIES, 1/8" TO 1/2"

- » Enables air to be exhausted quickly from air reservoirs and cylinders
- » Allows higher cylinder speeds to be achieved
- » Simple, compact design and construction
- » Very reliable in operation



Technical Data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

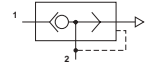
7 to 145 psi (0.5 to 10 bar)

Operating temperature:

-4°F to 176°F (-20°C to +80°C).
Consult our Technical Service for use below 35°F (+2°C)

Materials:

Body & cover: zinc alloy,
aluminum alloy
Seals: nitrile
O-ring: nitrile



T70 NPT

Part Number	Inlet port NPT	Outlet port NPT	Exhaust port NPY	Cv Flow Factor Direction 1 - 2*	Cv Flow Factor Direction 2 - 3	Volume	Fill	Exhaust
T70A1800	1/8"	1/8"	1/8"	0.9	1.8	150 cc	0.036	0.021
T70A2800	1/4"	1/4"	1/4"	1.9	2.5	150 cc	0.023	0.017
T70A3800	3/8"	3/8"	3/8"	3.8	5.5	1500 cc	0.110	0.080
T70A4800	1/2"	1/2"	1/2"	5.3	5.9	15,000 cc	0.460	0.480

T70 ISO G

Part Number	Inlet port ISO G	Outlet port ISO G	Exhaust port ISO G	Cv Flow Factor Direction 1 - 2*	Cv Flow Factor Direction 2 - 3	Volume	Fill	Exhaust
T70C2800	1/4"	1/4"	1/4"	1.9	2.5	150 cc	0.023	0.017
T70C4800	1/2"	1/2"	1/2"	5.3	5.9	15,000 cc	0.460	0.480

TUBING AND ACCESSORIES

- » Recommended for use with Pneufit® Push-In Fittings
- » Manufactured from Nylon 11
- » UL-94HB flame retardant rating
- » Heat and light stabilized
- » Shipped in 100 ft. coils (30m) packed in polyethylene bags

Nylon Inch Tube

Part Number and Color		Tubing		Maximum Working Pressure -40°F to 70°F psig	Minimum Bend Radius (in.)
Natural	Black	OD (in.)	ID (in.)		
PB0051100	PB0751100	1/8	0.093	225	0.38
PB0054100	PB0754100	1/4	0.180	250	0.88
PB0056100	PB0756100	3/8	0.275	220	1.50
PB0057100	PB0757100	1/2	0.375	200	2.00

- » Recommended for use with Pneufit® Push-In Fittings
- » Manufactured from Polyurethane
- » Shipped 100' coils packed in Polyethylene bags

Polyurethane Tube

Part Number and Color		Tubing		Maximum Working Pressure at 75°F psig	Minimum Bend Radius (in.)
Natural	Black	OD (in.)	ID (in.)		
PW0054100	PW0754100	1/4"	.160	148	1/2"
PW0056100	PW0756100	3/8"	.245	147	7/8"

- » Makes clean, square cuts in Nylon tubing that are necessary for leak free connections.
- » Small size (3" long, 1" wide, 1" high) makes it easy to use and convenient to carry.
- » Spring actuation keeps it closed when not in use.

Tube Cutter

Part Number	Replacement blades (5 pack)
M/3314 (red)	M/32009

Technical Data

Fluids:

Compressed air, nitrogen and inert gases

Temperature Rating:

-60°F to 200°F (-5°C to 93°C)*

Vacuum Rating:

To 28° Hg (711 mm Hg)

Diameter Tolerances:

+ 0.002"; -0.004"

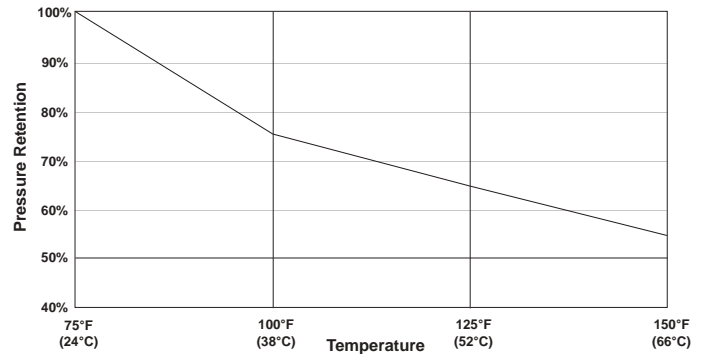
Hardness:

78 Rockwell R

Material:

Nylon 11

Working Pressure at Elevated Temperature



Technical Data

Fluid:

Compressed air

Temperature Rating:

-40°F to 165°F
(-40°C to 73°C)

Vacuum Rating:

To 28° Hg (711 mm Hg)

Material

95 Durometer Polyurethane

Diameter Tolerances:

± 0.005"



- » Polyethylene tubing (LDPE)
- » Manufactured from FDA approved acetal material, and are certified by NSF (51 & 61), WRAS and SK-Zert for use with water and food.
- » Suitable for use in medical and analytical equipment including fluid and precision gas control.
- » Appropriate for inert gas and industrial air applications.

LDPE Tubing

Part Number and Color		OD/ID	Length
Natural	Black		
PE0054100	PE0754100	1/4 x 0.170	100'
PE0056100	PE0756100	3/8 x 1/4	100'
PE0057100	PE0757100	1/2 x 3/8	100'



Technical Data

Medium: Air and liquid	Vacuum Rating: To 28° Hg (711 mm Hg)
Temperature Rating: -40°F to 150°F (-40°C to 66°C)	Diameter Tolerances: ± 0.004"
	Material: 50 Shore D Polyethylene



- » Indicate the presence or absence of a pneumatic signal
- » Wide angle of visibility
- » Contrasting color combinations for positive identification

Rotowink Indicators

Part Number	Port Size Male	Operating pressure psi (bar)	Max Pressure psi (bar)	Actuation Pressure psi (bar)	Deactuation Pressure psi (bar)	Mounting hole Inch (mm)	Colors	
							Normal	Actuated
5VS-201-000	1/8"	15 to 150 (1 to 10.3)	150 (10.3)	15 (1)	2 (.14)	.72 (18.3)	Black	Red
5VS-202-000	1/8"	15 to 150 (1 to 10.3)	150 (10.3)	15 (1)	2 (.14)	.72 (18.3)	Black	Green
5VS-212-000	1/8"	15 to 150 (1 to 10.3)	150 (10.3)	15 (1)	2 (.14)	.72 (18.3)	Red	Green
5VS-221-000	1/8"	15 to 150 (1 to 10.3)	150 (10.3)	15 (1)	2 (.14)	.72 (18.3)	Green	Red

- » 25-micron element rating
- » Connections for 1/8" or 5/32" ID flexible tubing
- » Direct in-line mounting
- » Protection against particulate contamination for miniature pneumatic systems

Miniature Inline Filters

Part number	Flexible tube connection
4LF-010-000	1/8" ID



MUFFLERS AND SILENCERS

Sintered Bronze Mufflers

Part Number	Port Size NPT	Flow Factor Cv
MS000A	10-32	-
MS001A	1/8"	0.7
MS002A	1/4"	1.4
MS003A	3/8"	1.9
MS004A	1/2"	3.8
MS006A	3/4"	6.5
MS008A	1"	10.5
Part Number	Port Size ISO G	Flow Factor Cv
T40C1800	1/8	0.54
T40C2800	1/4	1.6



Stem Silencers

Part Number	Stem O.D.
T45Y0002	5/32"
T45Y0004	1/4"
T45Y0006	3/8"



Quietaire Heavy Duty Mufflers

Male thread Part Number NPT thread	Male thread Part Number ISO R thread	Port Size PTF	Female thread Part Number NPT thread	Port Size PTF
MB001A		1/8"	MA001A	1/8"
MB002A	MB002B	1/4"	MA002A	1/4"
MB003A	MB003B	3/8"	MA003A	3/8"
MB004A	MB004B	1/2"	MA004A	1/2"
MB006A		3/4"	MA006A	3/4"
MB008A	-	1"	MA008A	1"
MBP03A	-	3/8"	MA010A	1-1/4"
MBP06A	-	3/4"	MA012A	1-1/2"
MBP10A	-	1-1/4"	-	-



Sintered Bronze Speed Control

Part Number	Port Size NPT
MM001A	1/8"
MM002A	1/4"
MM003A	3/8"
MM004A	1/2"



Porous Plastic Mufflers

Part Number NPT	Part number ISO G	Port Size
	M/S0	M5
C/S1	M/S1	18"
C/S2	M/S2	14"
C/S3	M/S3	38"
C/S4	M/S4	12"



High Performance Flow Control Muffler

Part Number	Port NPT
T20A1800	1/8"
T20A2800	1/4"



Plastic Speed Control

Part Number	Port Size NPT	Flow Factor Cv
MQ004A	1/2"	2.5
MQ006A	3/4"	2.5
MQ008A	1"	7.7
MQ010A	1-1/4"	7.7



Breather Vents

Part Number	Port Size NPT	Flow Factor Cv
MV001A	1/8"	0.1
MV002A	1/4"	0.1
MV003A	3/8"	0.3
MV004A	1/2"	0.5
MV006A	3/4"	1.3
Part Number	Port Size ISO G	Flow Factor Cv
M/1511	1/8	0.45
M/1512	1/4	1.1



Warning

Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes. System designers and end users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end user is responsible for verifying that all requirements for the application are met.

Warranty

The products described herein are warranted subject to seller's Standard Terms and Condition of Sale, available at seller's website.

 **WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov.



1

ACTUATORS

NFPA ALUMINUM, STEEL, & STAINLESS STEEL
ELECTRIC ACTUATORS
ROUNDLINE STAINLESS STEEL BODY
F-SERIES PLUS COMPACT
LINTRA® PLUS RODLESS



2

VALVES

MANIFOLD VALVES
SOLENOID AND AIR PILOT VALVES
MANUAL AND MECHANICAL VALVES
PROPORTIONAL & PRESSURE CONTROL VALVES
SOLENOID VALVES
MAXSEAL® STAINLESS STEEL VALVES



3

PRESSURE SWITCHES

PRESSURE SWITCHES
SOLID STATE SWITCHES
NAS NUT/THREAD SENSORS



4

AIR PREPARATION

EXCELON® PLUS – MODULAR SYSTEM
MINIATURE SERIES, GENERAL PURPOSE
MAINLINE SERIES
SPECIAL PURPOSE
STAINLESS STEEL – GENERAL PURPOSE & PRECISION
COMPRESSED AIR, WATER, & BEVERAGE



5

FITTINGS, TUBING, & ACCESSORIES

PUSH-IN FITTINGS
FUNCTION FITTINGS & FLOW CONTROLS
TUBING & ACCESSORIES
MUFFLERS, SILENCERS, & BREATHER VENTS



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06/22

Incorporating

