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**pneumatics**  
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# Pneumatic Cylinders

Series P1A - Ø10 to Ø25 mm  
 According to ISO 6432

Catalogue PDE2564TCUK September 2016



**log** LOGICSYSTEM AB  
 Industriautomation  
 ENGINEERING YOUR SUCCESS.

## P1A Pneumatic ISO Cylinders

### Effective cushioning

The Mini ISO range is available with fixed end cushioning or with adjustable pneumatic cushioning, controlled by simple bleed screws for fine adjustment. The adjustable cushioned cylinders can be operated with higher mass loads and at higher speeds than those with fixed end cushioning, reducing overall cycle times.

### Smooth external design

There are no recesses or pockets in the end covers that could trap dirt or liquid, making cleaning simple and effective.

### Corrosion-resistant

Even the basic versions of the cylinders have good corrosion resistance through appropriate choice of materials and surface treatment, allowing them to be used in demanding environments.

### Stainless steel versions

The Mini ISO range is also available in an all-stainless version with piston rod, barrel and end covers of stainless steel for use in particularly severe environments. See separate brochure for cylinder series P1S.

### Proximity sensing

A complete range of sensors for proximity sensing is available as accessories: both reed switch and Hall effect sensors are available. They are supplied with either flying lead or cable plug connector.

### Complete mounting programme

A complete ISO compatible mounting programme with surface-treated/stainless steel piston rod and cylinder mountings for both pivoted and fixed operation are available.

### Variants

In addition to the basic versions, a number of standard variants of Parker Pneumatics cylinders are available to meet all demands on function and environmental adaptation:

Non-standard stroke lengths

Extended piston rods

Through piston rods

Single acting cylinder with spring return  
(in the retract direction).

Single acting cylinder with spring return in the advance  
direction (piston rod in extended position)

External guide, for controlled guidance of the piston rod

High-temperature cylinder versions for use in ambient  
temperatures ranging from -10 °C to +150 °C for bores 12,  
16, 20 and 25 mm

Cylinders with outer sealings in fluorocarbon rubber FPM

Stainless steel cylinders, see brochure for series P1S.



Double-acting, cushioned stroke



Double-acting, adjustable cushioning



Double-acting, through piston rod



Single-acting, spring return










Single-acting, spring-extended



U and H guidance modules

**Order key**

<b>P1A-S</b>	<b>016</b>	<b>M</b>	<b>S</b>	<b>-</b>	<b>0025</b>
<b>Cylinder bore mm</b>	<b>Cylinder type / function</b>			<b>Stroke length, mm</b>	
010	<b>M</b>		Double-acting, adjustable cushioning. Ø16-25 mm. Not for sealing material type F.		
012	<b>D</b>		Double-acting, non-adjustable cushioning, Ø10 - Ø25		
016	<b>F</b>		Double-acting, adjustable cushioning, thru-rod, Ø16-25 mm. Not for sealing material type F.		
020	<b>K</b>		Double-acting, non-adjustable cushioning, thru-rod, Ø10 - Ø25		
025	<b>S</b>		Single-acting, non-adjustable cushioning, spring return for retract stroke, Ø10-25 mm. Not for sealing material type F.		
	<b>T</b>		Single-acting, non-adjustable cushioning, spring return for advance stroke, Ø16-25 mm. Not for sealing material type F.		
			<b>Sealing material</b>		
			<b>S</b>	Standard, -20 °C to +80 °C. Magnetic piston	
			<b>F</b>	 High temperature, Ø12, 16, 20 and 25 mm -10 °C to +150 °C. Non-magnetic piston	
			<b>V</b>	External seals of fluorinated rubber. -20 °C to +80 °C. Magnetic piston	

**Note:** P1A Series also available with end caps made of stainless steel - replace P1A with P1S in the order code key.

**Stroke length**

Cylinder designation	Cylinder bore	● Standard stroke length in mm										■ Non standard stroke length					
		10	15	20	25*	30	40	50*	80*	100*	125*	160*	200*	250*	320*	400*	500*
<b>Double acting with fixed end-cushioning:</b>																	
P1A-S010D	10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S012D	12	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S016D	16	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S020D	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S025D	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Double acting with adjustable end-cushioning:</b>																	
P1A-S016M	16	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S020M	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S025M	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Single acting, spring return:</b>																	
P1A-S010SS	10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S012SS	12	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S016SS	16	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S020SS	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S025SS	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Single acting, spring-extended:</b>																	
P1A-S016TS	16	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S020TS	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
P1A-S025TS	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

\* Standard stroke lengths in mm according to ISO 4393  
 \*\* Max stroke 1000 mm

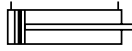
# P1A Pneumatic ISO Cylinders

## Data

Working pressure max. 10 bar  
 Working temperature max. +80 °C  
 min. -20 °C

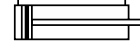


### Double-acting Fixed end cushioning



Cyl.bore mm	Stroke mm	Order code
<b>10</b> Conn. M5	10	P1A-S010DS-0010
	15	P1A-S010DS-0015
	20	P1A-S010DS-0020
	25	P1A-S010DS-0025
	30	P1A-S010DS-0030
	40	P1A-S010DS-0040
	50	P1A-S010DS-0050
	80	P1A-S010DS-0080
	100	P1A-S010DS-0100
	125	P1A-S010DS-0125
Max stroke 500 mm		
<b>12</b> Conn. M5	10	P1A-S012DS-0010
	15	P1A-S012DS-0015
	20	P1A-S012DS-0020
	25	P1A-S012DS-0025
	30	P1A-S012DS-0030
	40	P1A-S012DS-0040
	50	P1A-S012DS-0050
	80	P1A-S012DS-0080
	100	P1A-S012DS-0100
	125	P1A-S012DS-0125
160	P1A-S012DS-0160	
200	P1A-S012DS-0200	
Max stroke 500 mm		
<b>16</b> Conn. M5	10	P1A-S016DS-0010
	15	P1A-S016DS-0015
	20	P1A-S016DS-0020
	25	P1A-S016DS-0025
	30	P1A-S016DS-0030
	40	P1A-S016DS-0040
	50	P1A-S016DS-0050
	80	P1A-S016DS-0080
	100	P1A-S016DS-0100
	125	P1A-S016DS-0125
160	P1A-S016DS-0160	
200	P1A-S016DS-0200	
Max stroke 500 mm		

### Fixed end cushioning



Cyl.bore mm	Stroke mm	Order code
<b>20</b> Conn. G1/8	10	P1A-S020DS-0010
	15	P1A-S020DS-0015
	20	P1A-S020DS-0020
	25	P1A-S020DS-0025
	30	P1A-S020DS-0030
	40	P1A-S020DS-0040
	50	P1A-S020DS-0050
	80	P1A-S020DS-0080
	100	P1A-S020DS-0100
	125	P1A-S020DS-0125
160	P1A-S020DS-0160	
200	P1A-S020DS-0200	
250	P1A-S020DS-0250	
320	P1A-S020DS-0320	
Max stroke 1000 mm		
<b>25</b> Conn. G1/8	10	P1A-S025DS-0010
	15	P1A-S025DS-0015
	20	P1A-S025DS-0020
	25	P1A-S025DS-0025
	30	P1A-S025DS-0030
	40	P1A-S025DS-0040
	50	P1A-S025DS-0050
	80	P1A-S025DS-0080
	100	P1A-S025DS-0100
	125	P1A-S025DS-0125
160	P1A-S025DS-0160	
200	P1A-S025DS-0200	
250	P1A-S025DS-0250	
320	P1A-S025DS-0320	
Max stroke 1000 mm		

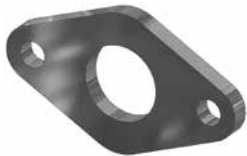
Cylinders are supplied complete with neck mounting and piston rod nuts.  
 Cylinders with Through piston rods are supplied with two piston rod nuts  
 and one neck mounting nut.



**Cylinder mountings**

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
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**Flange-MF8**



Intended for fixed attachment of the cylinder. The flange is designed for mounting on the front or rear end-covers.

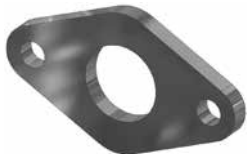
Material:  
Surface-treated steel

10  
12-16  
20-25

0,012  
0,025  
0,045

**P1A-4CMB**  
**P1A-4DMB**  
**P1A-4HMB**

**Stainless Flange-MF8**



Intended for fixed attachment of the cylinder. The flange is designed for mounting on the front or rear end-covers.

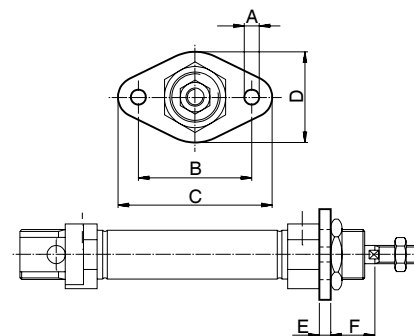
Material:  
Stainless steel, DIN X 10 CrNiS 18 9

10  
12-16  
20-25

0,012  
0,025  
0,045

**P1S-4CMB**  
**P1S-4DMB**  
**P1S-4HMB**

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm
10	4.5	30	40	22	3	13
12-16	5.5	40	52	30	4	18
20	6.5	50	66	40	5	19
25	6.5	50	66	40	5	23



**Foot-MS3**



Intended for fixed attachment of the cylinder. The bracket is designed for mounting on the front or rear end covers.

Material:  
Surface-treated steel

10  
12-16  
20-25

0,020  
0,040  
0,080

**P1A-4CMF**  
**P1A-4DMF**  
**P1A-4HMF**

**Stainless Foot-MS3**



Intended for fixed attachment of the cylinder. The bracket is designed for mounting on the front or rear end covers.

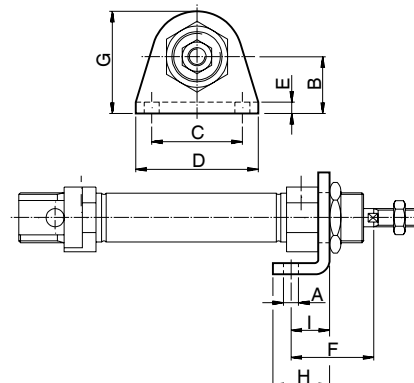
Material:  
Stainless steel, DIN X 10 CrNiS 18 9

10  
12-16  
20-25



0,020  
0,040  
0,080

**P1S-4CMF**  
**P1S-4DMF**  
**P1S-4HMF**

Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm
10	4.5	16	25	35	3	24	26.0	16	11
12-16	5.5	20	32	42	4	32	32.5	20	14
20	6.6	25	40	54	5	36	45.0	25	17
25	6.6	25	40	54	5	40	45.0	25	17

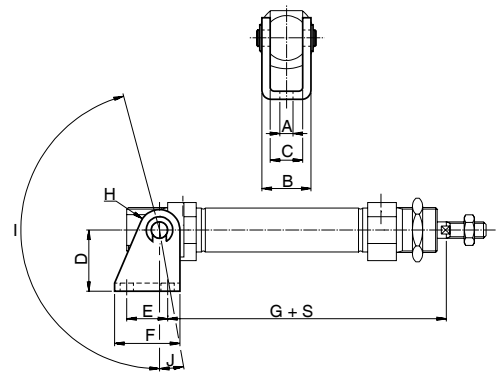




**Cylinder mountings**

Type	Description	Cyl. bore Ø mm	Weight kg	Order code
	<b>Clevis bracket AB3</b> Intended for articulated mounting of the cylinder. Supplied with shaft for mounting on the rear end cover.  Material: Bracket: surface-treated steel, black Pin: surface hardened steel Circlips: according to DIN 471: Stainless steel	10	0.020	<b>P1A-4CMT</b> <b>P1A-4DMT</b> <b>P1A-4HMT</b>
		12-16	0.040	
		20-25	0.080	
	<b>Stainless Clevis bracket AB3</b> Intended for articulated mounting of the cylinder. Supplied with shaft for mounting on the rear end cover.  Material: Bracket: stainless steel, DIN X 5 CrNi 18 10 Pin: tempered stainless steel, DIN X 20 Cr 13 Locking rings: stainless steel, DIN X 5 CrNi 18 10	10	0.020	<b>P1S-4CMT</b> <b>P1S-4DMT</b> <b>P1S-4HMT</b>
		12-16	0.040	
		20-25	0.080	

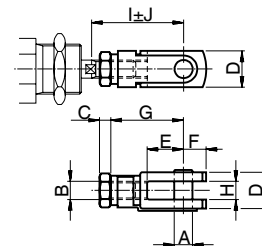
Cylinder Ø mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I °	J °
10	4.5	13	8.1	24	12.5	20	65.3	5	160	17
12	5.5	18	12.1	27	15.0	25	73.0	7	170	15
16	5.5	18	12.1	27	15.0	25	80.0	7	170	15
20	6.6	24	16.1	30	20.0	32	91.0	10	165	10
25	6.6	24	16.1	30	20.0	32	100.0	10	165	10

S=stroke





	<b>Clevis AP2</b> According to ISO 8140 Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.  Material: Galvanized steel	10	0.007	<b>P1A-4CRC</b> <b>P1A-4DRC</b> <b>P1A-4HRC</b> <b>P1A-4JRC</b>
		12-16	0.022	
		20	0.045	
		25	0.095	
	<b>Stainless Clevis AP2</b> According to ISO 8140 Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction. Supplied complete with pin.  Material: Stainless steel, DIN X 5 CrNi 18 10	10	0.007	<b>P1S-4CRD</b> <b>P1S-4DRD</b> <b>P1S-4HRD</b> <b>P1S-4JRD</b>
		12-16	0.022	
		20	0.045	
		25	0.095	

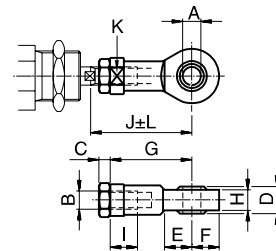
Cylinder Ø mm	A mm	B	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm
10	4	M4	2.2	8	8	5	16	4	22.0	2.0
12-16	6	M6	3.2	12	12	7	24	6	31.0	3.0
20	8	M8	4.0	16	16	10	32	8	40.5	3.5
25	10	M10x1.25	5.0	20	20	12	40	10	49.0	3.0




**Cylinder mountings**

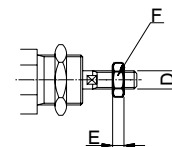
Type	Description	Cyl. bore Ø mm	Weight kg	Order code
 <p><b>Swivel rod eye AP6</b></p>	<p>According to ISO 8139 Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.</p> <p>Material: Swivel rod eye: Galvanized steel Ball: hardened steel</p>	10	0.017	<p><b>P1A-4CRS</b> <b>P1A-4DRS</b> <b>P1A-4HRS</b> <b>P1A-4JRS</b></p>
		12-16	0.025	
		20	0.045	
		25	0.085	
 <p><b>Stainless Swivel rod eye AP6</b></p>	<p>According to ISO 8139 Intended for articulated mounting of the cylinder. This mounting is adjustable in the axial direction.</p> <p>Material: Swivel rod eye: stainless steel, DIN X 5 CrNi 18 10 Ball: hardened stainless steel, DIN X 5 CrNi 18 10</p>	10	0.017	<p><b>P1S-4CRT</b> <b>P1S-4DRT</b> <b>P1S-4HRT</b> <b>P1S-4JRT</b></p>
		12-16	0.025	
		20	0.045	
		25	0.085	

Cylinder Ø mm	A mm	B	C	D	E	F	G	H	I	J	K	L
10	5	M4	2,2	8	10	9	27	6,0	8	33,0	9	2,0
12-16	6	M6	3,2	9	10	10	30	6,8	9	38,5	11	1,5
20	8	M8	4,0	12	12	12	36	9,0	12	46,0	14	2,0
25	10	M10x1,25	5,0	14	14	14	43	10,5	15	52,5	17	2,5




 <p><b>Stainless Rod nut MR9</b></p>	<p>Intended for fixed mounting on the piston rod. Cylinders are supplied complete with one rod nut. (cylinders with through piston rod are supplied with two rod nuts.)</p> <p>Material: Stainless steel, DIN X 5 CrNi 18 10</p>	10	0.001	<p><b>9127385121</b> <b>9127385122</b> <b>9127385123</b> <b>9126725404</b></p>
		12-16	0.002	
		20	0.005	
		25	0.007	

Cylinder Ø mm	D	F	E
10	M4	7	2.2
12-16	M6	10	3.2
20	M8	13	4.0
25	M10x1.25	17	5.0



## Ordering data

Output/function	Cable/connector	Weight kg	Order code
<b>Electronic sensors , 10-30 V DC</b>			
PNP type, normally open	0.27 m PUR-cable and 8 mm snap-in male connector	0.007	<b>P8S-GPSHX</b>
PNP type, normally open	1.0 m PUR-cable and 8 mm snap-in male connector	0.013	<b>P8S-GPSCX</b>
PNP type, normally open	1.0 m PUR-cable and M8 screw male connector	0.013	<b>P8S-GPCCX</b>
PNP type, normally open	0.27 m PUR-cable and M12 screw male connector	0.015	<b>P8S-GPMHX</b>
PNP type, normally open	3 m PVC-cable without connector	0.030	<b>P8S-GPFLX</b>
PNP type, normally open	10 m PVC-cable without connector	0.110	<b>P8S-GPFTX</b>
<b>Electronic sensor 18-30 V DC</b>			
<b>ATEX-certified</b>			
			
Type PNP , normally open	3 m PVC-cable without connector	0.030	<b>P8S-GPFLX/EX</b>
<b>Reed sensors , 10-30 V AC/DC</b>			
Normally open	0.27 m PUR-cable and 8 mm snap-in male connector	0.007	<b>P8S-GSSHX</b>
Normally open	1.0 m PUR-cable and 8 mm snap-in male connector	0.013	<b>P8S-GSSCX</b>
Normally open	1.0 m PUR-cable and M8 male connector	0.013	<b>P8S-GSCCX</b>
Normally open	0.27 m PUR-cable and M12 screw male connector	0.015	<b>P8S-GSMHX</b>
Normally open	1.0 m PUR-cable and M12 screw male connector	0.023	<b>P8S-GSMCX</b>
Normally open	3 m PVC-cable without connector	0.030	<b>P8S-GSFLX</b>
Normally open	10 m PVC-cable without connector	0.110	<b>P8S-GSFTX</b>
Normally closed	5m PVC-cable without connector <sup>1)</sup>	0.050	<b>P8S-GCFPX</b>
<b>Reed sensors. 10-120 V AC/DC</b>			
Normally open	3 m PVC-cable without connector	0.030	<b>P8S-GRFLX</b>
<b>Reed sensorer, 24-230 V AC/DC</b>			
Normally open	3 m PVC-cable without connector	0.030	<b>P8S-GRFLX2</b>

1) Without LED

## Sensor mounting

Description	Weight kg	Order code
Sensor mounting for cylinder P1A cylinder bore Ø10 to Ø25 mm	0.07	<b>P8S-TMC01</b>

## Connecting cables with one connector

The cables have an integral snap-in female connector.



Type of cable	Cable/connector	Weight kg	Order code
<b>Cables for sensors, complete with one female connector</b>			
Cable, Flex PVC	3 m, 8 mm Snap-in connector	0.07	<b>9126344341</b>
Cable, Flex PVC	10 m, 8 mm Snap-in connector	0.21	<b>9126344342</b>
Cable, Super Flex PVC	3 m, 8 mm Snap-in connector	0.07	<b>9126344343</b>
Cable, Super Flex PVC	10 m, 8 mm Snap-in connector	0.21	<b>9126344344</b>
Cable, Polyurethane	3 m, 8 mm Snap-in connector	0.01	<b>9126344345</b>
Cable, Polyurethane	10 m, 8 mm Snap-in connector	0.20	<b>9126344346</b>
Cable, Polyurethane	5 m, M12 screw connector	0.07	<b>9126344348</b>
Cable, Polyurethane	10 m, M12 screw connector	0.20	<b>9126344349</b>

## Male connectors for connecting cables

Cable connectors for producing your own connecting cables. The connectors can be quickly attached to the cable without special tools. Only the outer sheath of the cable is removed. The connectors are available for M8 and M12 screw connectors and meet protection class IP 65.



Connector	Weight kg	Order code
M8 screw connector	0.017	<b>P8CS0803J</b>
M12 screw connector	0.022	<b>P8CS1204J</b>

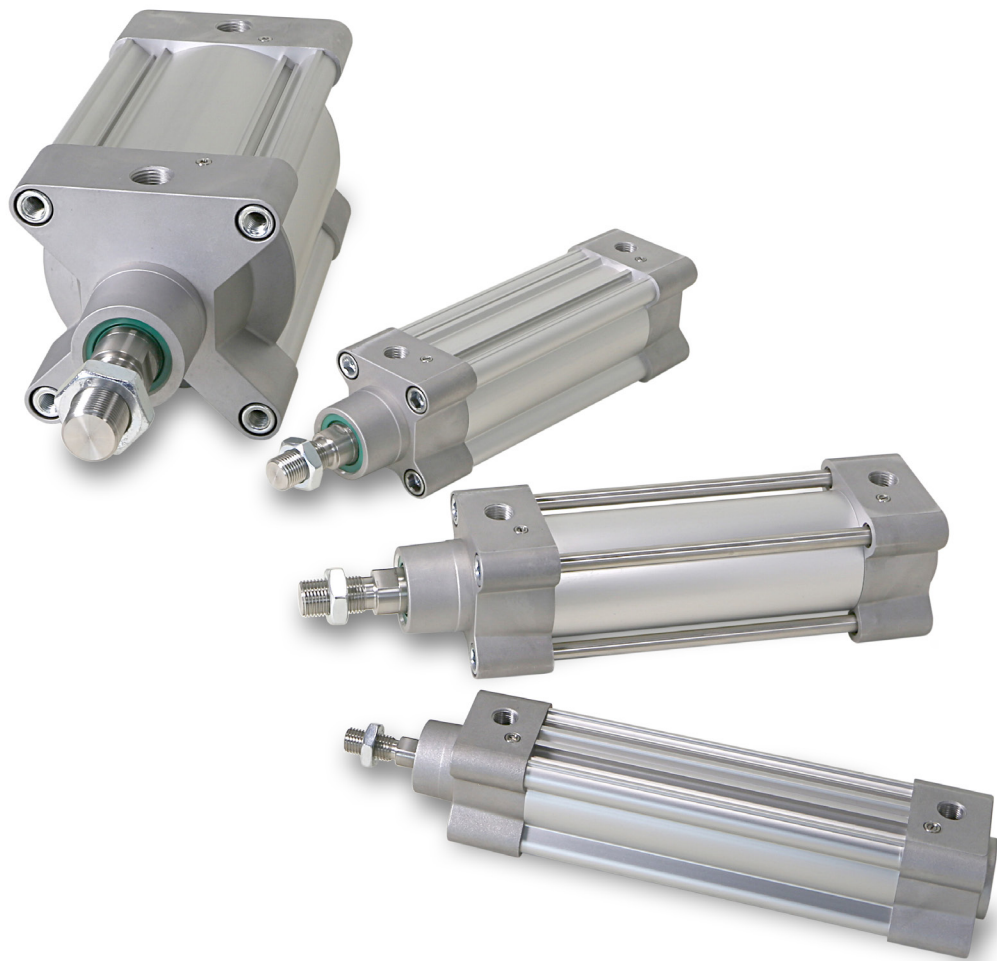
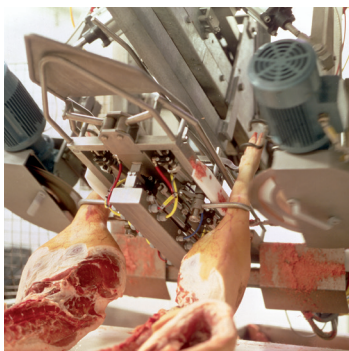
## Technical data

Operating voltage	max. 32 V AC/DC
Operating current per contact	max. 4 A
Connection cross section	0.25...0.5mm <sup>2</sup> (conductor diameter min 0.1 mm)
Protection	IP65 and IP67 when plugged and screwed down (EN 60529)
Temperature range	-25...+85 °C





aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# Pneumatic Cylinders

Ø32 to Ø125 mm P1F Series

According to ISO 15552

Catalogue PDE3570TCEN



ENGINEERING YOUR SUCCESS.

**Standard Cylinders ISO 15552**

**Global product range**

The P1F Series meets the specifications of the ISO 15552 standard. This means full interchangeability to any cylinder anywhere around the globe. P1F will be available throughout the extensive worldwide Parker Hannifin organisation – for the benefit to you and your customers.



**Features**

- Smooth profile or Tie-Rods design.
- Bore sizes 32 - 125 mm.
- Corrosion resistant design with end plates and barrel in sandblast and anodised aluminium.
- Stainless steel piston rod.
- Polyurethane seal technology inside.
- Cushioning stainless steel screws on same side.
- New adjustable pneumatic and mechanical cushioning system reduces the noise caused by the impact of the piston on the end covers.
- Full range of mountings available.
- Full range of drop-in' sensors available.

**Design Variants**

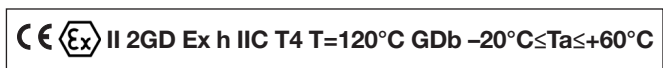
**Smooth profile - P1F-S, P1F-K**

The P1F in bore sizes Ø32 to Ø125 mm is a smooth profile designed cylinder with a magnetic piston used for standard temperature range from -20°C to +80°C. Utilising internal composite technology to save weight and reduce impact kinetic energy, while assuring the high performance and functionality expected for an ISO cylinder. Aluminium end covers, stainless steel piston rod guided with a PTFE coated steel bearing, pneumatic cushioning and polyurethane (PUR) seals as standard, this is our smooth profile industrial ISO cylinder.



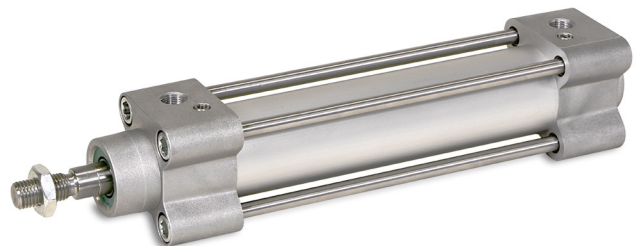
**Smooth profile - P1F-A**

Similar to the smooth profile version but in an ATEX variant and a restricted temperature range from -20°C to +60°C. Average speed up to 0.5 m/s and max. frequency 1Hz.



**Tie-Rods round profile - P1F-T, P1F-N**

Similar to the smooth profile version but in a Tie-Rods design for heavy duty applications. Round tube is made in anodised aluminium; Tie-Rods in stainless steel as a standard.



Order code

Order Instructions	P	1	F	-	S	0	3	2	M	S	-	0	1	6	0	-	0	0	0	0
--------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Profile/cylinder design	
<b>S</b>	Smooth
<b>A</b> <sup>1)</sup>	ATEX smooth
<b>K</b>	Smooth with through rod
<b>L</b> <sup>2)4)</sup>	Smooth with dynamic rod lock
<b>H</b> <sup>2)4)</sup>	Smooth with static rod lock
<b>T</b>	Tie-Rods
<b>N</b>	Tie-Rods with through rod
<b>P</b> <sup>2)</sup>	Air reservoir

Cylinder bore size	
<b>032</b>	32 mm
<b>040</b>	40 mm
<b>050</b>	50 mm
<b>063</b>	63 mm
<b>080</b>	80 mm
<b>100</b>	100 mm
<b>125</b>	125 mm

Temperature range	
<b>M</b> <sup>1)</sup>	Polyurethane (PUR) -20°C to +80°C std temp
<b>F</b> <sup>3)</sup>	Fluoro elastomere (FKM) -10°C to +150°C high temp
<b>L</b> <sup>3)</sup>	Ultrathan polyurethane (TPU-PUR) -40°C to +80°C low temp
<b>Q</b> <sup>4)</sup>	(TPU-PUR) with metallic scraper -30°C to +80°C low temp
<b>V</b> <sup>5)</sup>	(PUR) with FKM wiper rod seal -10°C to +80°C std temp
<b>D</b> <sup>5)</sup>	(PUR) with Polon/UHMW-PE wiper rod seal -20°C to +80°C std temp

Rod extension or trunnion mounting	
<b>0000</b>	without
<b>P . . .</b>	Piston rod extension in mm
<b>G000</b>	Trunnion mount +90° vs. air ports
<b>7000</b>	Trunnion mount +0° vs. air ports
<b>H . . .</b>	piston rod extension in mm with trunnion +90°
<b>B . . .</b>	piston rod extension in mm with trunnion +0°

Cylinder Stroke	
....	Stroke length in mm (max. 2000)

Piston style	
<b>-</b> <sup>6)</sup>	Standard with magnet
<b>F</b>	Standard w/o magnet
<b>X</b>	Aluminium with magnet
<b>A</b>	Aluminium w/o magnet

Piston Rod material male thread	
<b>S</b> <sup>1)</sup>	Stainless steel
<b>C</b>	Chrome plated carbon steel
<b>R</b> <sup>***</sup>	Chrome plated stainless steel

Piston Rod material female thread	
<b>E</b> <sup>1)</sup>	Stainless steel
<b>F</b>	Chrome plated carbon steel
<b>G</b> <sup>***</sup>	Chrome plated stainless steel

Air Reservoir	
<b>A</b>	without piston rod

<sup>1)</sup> ATEX version is specified for standard temperature range -20°C to +60°C  
<sup>2)</sup> in standard temperature range -20°C to +80°C  
<sup>3)</sup> High and low temp option only with aluminium piston  
<sup>4)</sup> Only in combination with chrome or stainless steel plated piston rod material  
<sup>5)</sup> With anodised end covers, high polymer piston rod bushing and stainless steel end covers screws. Only for S and K cylinder design  
<sup>6)</sup> for air reservoir  
<sup>\*\*\*</sup>on request

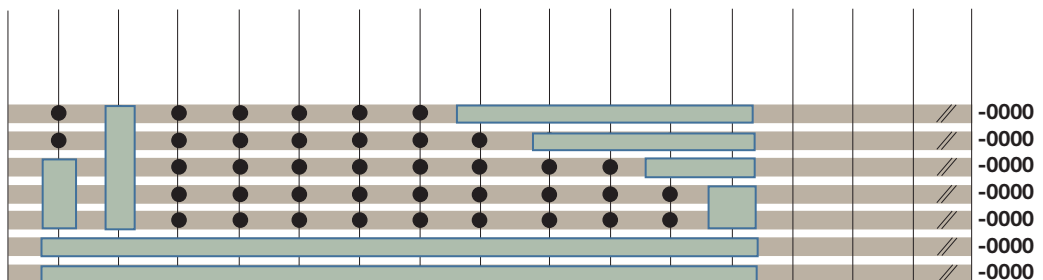
Standard strokes for all P1F cylinders compliant to ISO 4393  
 (with the exception of stroke 40 mm)  
 Non standard strokes up to 2000 mm.

Order code      Cylinder bore      ● = Standard stroke (mm)      ■ = Non standard stroke to special order  
 (mm)      0025 0040 0050 0080 0100 0125 0160 0200 0250 0320 0400 0500 0600 0700 0800 2000



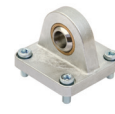
Lagerprodukter

- P1F-S032MS -
- P1F-S040MS -
- P1F-S050MS -
- P1F-S063MS -
- P1F-S080MS -
- P1F-S100MS -
- P1F-S125MS -



## Mountings

Flange MF1 / MF2 ①    Foot brackets MS1 ②    Pivot bracket with rigid bearing AB7 ③    Swivel eye bracket MP6 ④    Clevis bracket MP2 ⑤



Ø32	P1C-4KMB	P1C-4KMF	P1C-4KMDB	P1C-4KMSB	P1C-4KMTB
Ø40	P1C-4LMB	P1C-4LMF	P1C-4LMDB	P1C-4LMSB	P1C-4LMTB
Ø50	P1C-4MMB	P1C-4MMF	P1C-4MMDB	P1C-4MMSB	P1C-4MMTB
Ø63	P1C-4NMB	P1C-4NMF	P1C-4NMDB	P1C-4NMSB	P1C-4NMTB
Ø80	P1C-4PMB	P1C-4PMF	P1C-4PMDB	P1C-4PMSB	P1C-4PMTB
Ø100	P1C-4QMB	P1C-4QMF	P1C-4QMDB	P1C-4QMSB	P1C-4QMTB
Ø125	P1C-4RMB	P1C-4RMF	P1C-4RMDB	P1C-4RMSB	P1C-4RMTB

Clevis bracket MP4 ⑥    Clevis bracket AB6 ⑦    Pivot bracket with 3 and 4 position flange ⑧    3 and 4 position flange JP1 ⑨    Pivot brackets AT4 ⑩



Ø32	P1C-4KMEB	P1C-4KMCB	P1C-4KMAF	P1E-6KB0	9301054261
Ø40	P1C-4LMEB	P1C-4LMCB	P1C-4LMAF	P1E-6LB0	9301054262
Ø50	P1C-4MMEB	P1C-4MMC	P1C-4MMAF	P1E-6MB0	9301054262
Ø63	P1C-4NMEB	P1C-4NMCB	P1C-4NMAF	P1E-6NB0	9301054264
Ø80	P1C-4PMEB	P1C-4PMC	P1C-4PMAF	P1E-6PB0	9301054264
Ø100	P1C-4QMEB	P1C-4QMCB	P1C-4QMAF	P1E-6QB0	9301054266
Ø125	P1C-4RMEB	P1C-4RMCB	P1C-4RMAF		9301054266

Flange trunnion MT5/MT6 ⑪    Intermediate trunnion MT4 ⑫    Swivel rod eye AP6 ⑬    Clevis AP2 ⑭    Flexo coupling PM5 ⑮



Ø32	P1D-4KMYF	refer to page 23	P1C-4KRS	P1C-4KRC	P1C-4KRF
Ø40	P1D-4LMYF	refer to page 23	P1C-4LRS	P1C-4LRC	P1C-4LRF
Ø50	P1D-4MMYF	refer to page 23	P1C-4MRS	P1C-4MRC	P1C-4MRF
Ø63	P1D-4NMYF	refer to page 23	P1C-4MRS	P1C-4MRC	P1C-4MRF
Ø80	P1D-4PMYF	refer to page 23	P1C-4PRS	P1C-4PRC	P1C-4PRF
Ø100	P1D-4QMYF	refer to page 23	P1C-4PRS	P1C-4PRC	P1C-4PRF
Ø125		refer to page 23	P1C-4RRS	P1C-4RRC	P1C-4RRF

Nut MR9 (pack of 10) ⑯

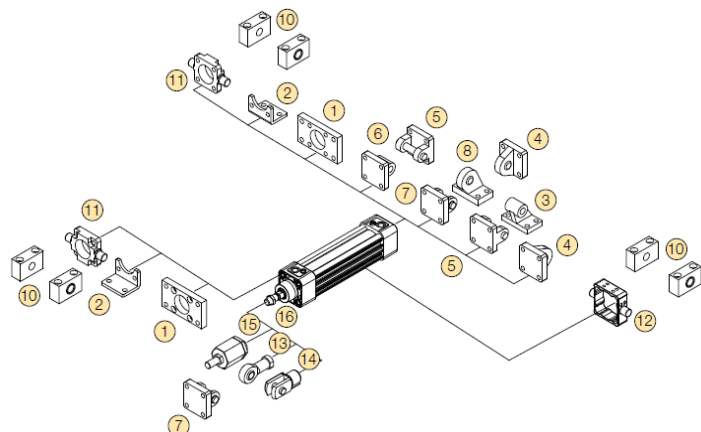
Zinc plated steel



Stainless steel



Ø32	P14-4KRPZ	P14-4KRPS
Ø40	P14-4LRPZ	P14-4LRPS
Ø50	P14-4MRPZ	P14-4MRPS
Ø63	P14-4MRPZ	P14-4MRPS
Ø80	P14-4PRPZ	P14-4PRPS
Ø100	P14-4PRPZ	P14-4PRPS
Ø125	P14-4RRPZ	P14-4RRPS





# PDE3570TCEN

## Pneumatic Cylinders ISO 15552

### Ordering data

Output/function	Cable/connector	Weight [kg]	Order code
<b>Electronic sensors, 10-30 V DC</b>			
PNP type, normally open	0.27 m PUR cable and 8 mm snap-in male connector	0.007	<b>P8S-GPSHX</b>
PNP type, normally open	0.27 m PUR cable and M12 screw male connector	0.015	<b>P8S-GPMHX</b>
PNP type, normally open	3 m PVC cable without connector	0.030	<b>P8S-GPFLX</b>
PNP type, normally open	10 m PVC cable without connector	0.110	<b>P8S-GPFTX</b>
<b>Reed sensors, 10-30 V AC/DC</b>			
Normally open	0.27 m PUR cable and 8 mm snap-in male connector	0.007	<b>P8S-GSSHX</b>
Normally open	0.27 m PUR cable and M12 screw male connector	0.015	<b>P8S-GSMHX</b>
Normally open	3 m PVC cable without connector	0.030	<b>P8S-GSFLX</b>
Normally open	10 m PVC cable without connector	0.110	<b>P8S-GSFTX</b>
Normally closed	5 m PVC cable without connector without LED	0.050	<b>P8S-GCFPX</b>
<b>Reed sensors, 10-120 V AC/DC</b>			
Normally open	3 m PVC cable without connector	0.030	<b>P8S-GRFLX</b>
<b>Reed sensors, 24-230 V AC/DC</b>			
Normally open	3 m PVC cable without connector	0.030	<b>P8S-GRFLX2</b>

### Male connectors for connecting cables

Cable connectors for producing your own connecting cables. The connectors can be quickly attached to the cable without special tools. Only the outer sheath of the cable is removed. The connectors are available for M8 screw connectors and meet protection class IP 65.



### Technical data

Operating voltage:	max. 32V AC/DC
Operating current per contact:	max. 4 A
Connection cross section:	0.25.... 0.5 mm <sup>2</sup> (conductor diameter min 0.1)
Protection class:	IP65 And IP 67 when plugged and screwed down (EN 60529)
Temperature range:	- 25... +85°C

Connector	Weight [kg]	Order Code
M8 screw connector	0.018	<b>P8CS0803J</b>
M12 screw connector	0.022	<b>P8CS1204J</b>

### Connecting cables

Description	Weight [g]	For Product Series	Order Code
Cable flex PVC 3 meter with 8mm snap-in connector / flying leads	70	P8S Sensors with M8	<b>9126344341</b>
Cable flex PVC 10 meter with 8mm snap-in connector / flying leads	210	P8S Sensors with M8	<b>9126344342</b>
Cable PUR 3 meter with 8mm snap-in female connector / flying leads	70	P8S Sensors with M8	<b>9126344345</b>
Cable flex PUR 10 meter with 8mm snap-in connector / flying leads	210	P8S Sensors with M8	<b>9126344346</b>
Cable PVC 2.5 meter with M8 screw connector / flying leads	60	P8S Sensors with knurled M8	<b>KC3102</b>
Cable PVC 5 meter with M8 screw female connector / flying leads	120	P8S Sensors with knurled M8	<b>KC3104</b>




## Seal Kits

Complete seal kits consisting of:

- 2 piston seals.
- 2 cushioning seals.
- 1 wiper / piston rod seal.
- 2 O-Rings.

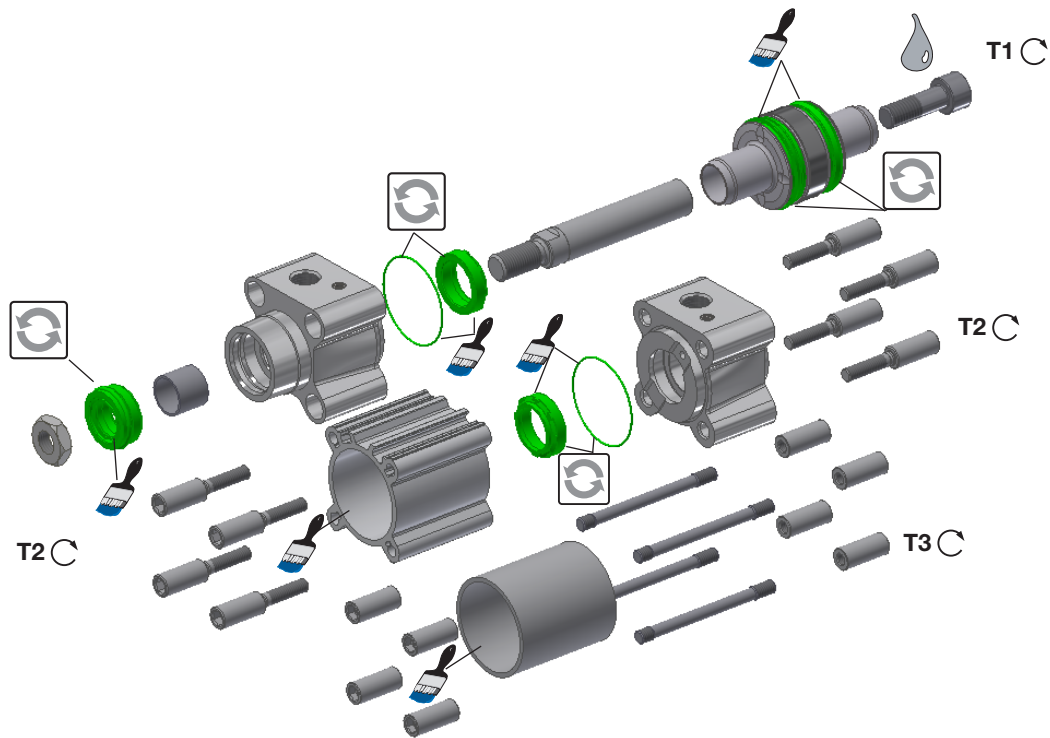
### Greases

	Standard	30 g	<b>9127394541</b>
	High temperature	30 g	<b>9127394521</b>
	Low temperature	30 g	<b>9127394541</b>

Cyl.-bore [mm]	Standard temperature <sup>1)</sup>	High temperature <sup>1)</sup>	Low temperature <sup>1)</sup>	Metallic scraper <sup>1) 2)</sup>	FKM Wiper seal <sup>1)</sup>	With dyn. rod lock <sup>1)</sup>	With static rod lock <sup>1)</sup>	Polon/UHMW-PE
Ø32	<b>P1F-6032RN</b>	P1F-6032RF	P1F-6032RL	P1F-6032RQ	P1F-6032RV	P1F-6032RNL	P1F-6032RNH	P1F-6032RD
Ø40	<b>P1F-6040RN</b>	P1F-6040RF	P1F-6040RL	P1F-6040RQ	P1F-6040RV	P1F-6040RNL	P1F-6040RNH	P1F-6040RD
Ø50	<b>P1F-6050RN</b>	P1F-6050RF	P1F-6050RL	P1F-6050RQ	P1F-6050RV	P1F-6050RNL	P1F-6050RNH	P1F-6050RD
Ø63	<b>P1F-6063RN</b>	P1F-6063RF	P1F-6063RL	P1F-6063RQ	P1F-6063RV	P1F-6063RNL	P1F-6063RNH	P1F-6050RD
Ø80	<b>P1F-6080RN</b>	P1F-6080RF	P1F-6080RL	P1F-6080RQ	P1F-6080RV	P1F-6080RNL	P1F-6080RNH	P1F-6080RD
Ø100	<b>P1F-6100RN</b>	P1F-6100RF	P1F-6100RL	P1F-6100RQ	P1F-6100RV	P1F-6100RNL	P1F-6100RNH	P1F-6100RD
Ø125	<b>P1F-6125RN</b>	P1F-6125RF	P1F-6125RL	P1F-6125RQ	P1F-6125RV	P1F-6125RNL	P1F-6125RNH	P1F-6125RD

<sup>1)</sup> for through piston rod, add K at the end, ie P1F-6032RNK

<sup>2)</sup> -30 to +80°C



Cyl.-bore [mm]	Plastic piston T1 [Nm]	Al Piston T1 [Nm]	AF [mm]	T2 [Nm]	AF [mm]	T3 [Nm]
Ø32	4.5	15	6	11	6	4.5
Ø40	11	30	8	11	6	4.5
Ø50	20	40	10	18	8	9.5
Ø63	20	40	10	18	8	9.5
Ø80	40	120	14	29	6	19
Ø100	120	120	14	29	6	19
Ø125	120	120	14	70	8	40



= Included in seal kit



= Socket head across flats



= Tightening torque



Lubricated with grease



Locking fluid  
Loctite 270 or Loctite 2701 locking fluid must be used



# High Performance Pneumatic Valves Viking Xtreme Series

G1/8- G1/2 body ported

Catalogue PDE2569TCUK - September 2015

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



ENGINEERING YOUR SUCCESS.

# Extreme Environments Demand The Viking Xtreme



The Viking Xtreme valve range is robust, versatile and combines high performance with compact installation dimensions. Large flow capacity, short change-over times and low change-over pressure are important characteristics of this valve range.

The 1/8 & 1/4 sizes are designed to operate with pressures up to 16 bar and the 3/8 & 1/2 sizes up to 12 bar, in ambient temperatures -40°C to + 60°C when fitted with suitable solenoid operators.

## Viking Xtreme range

- P2LAX, dimension G1/8**
- P2LBX, dimension G1/4**
- P2LCX, dimension G3/8**
- P2LDX, dimension G1/2**

### Manually operated range

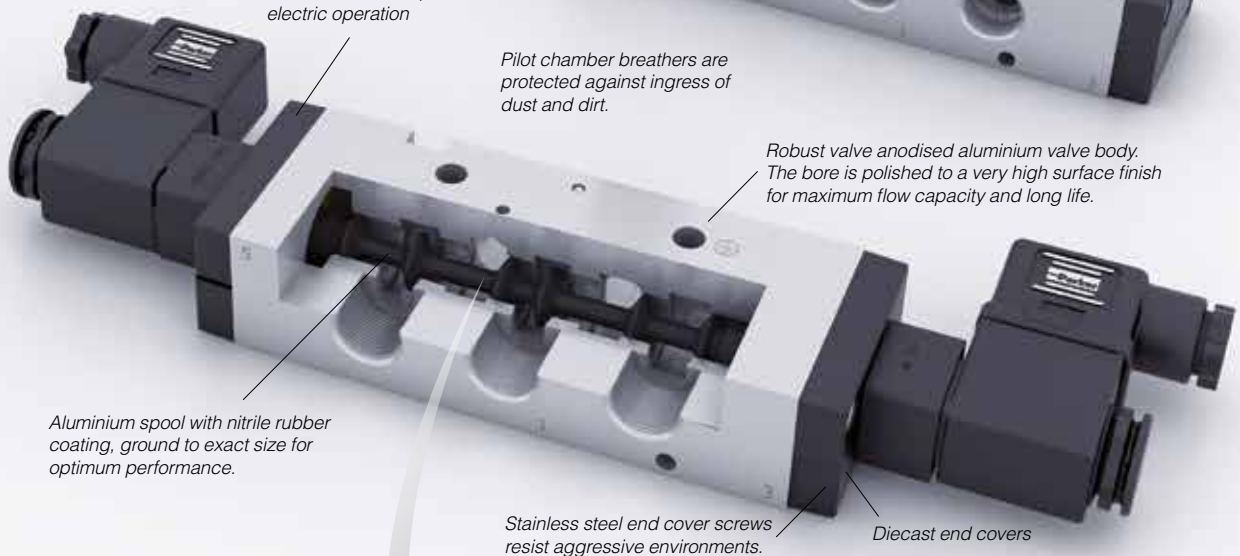
The complete range includes lever operated versions. They feature a rugged hand lever specifically designed for gloved hands and are available in 3/2, 5/2 and 5/3 functions



Wide range of 3/2, 5/2 and 5/3 valves for manual, pneumatic or electric operation

Pilot chamber breathers are protected against ingress of dust and dirt.

Robust valve anodised aluminium valve body. The bore is polished to a very high surface finish for maximum flow capacity and long life.



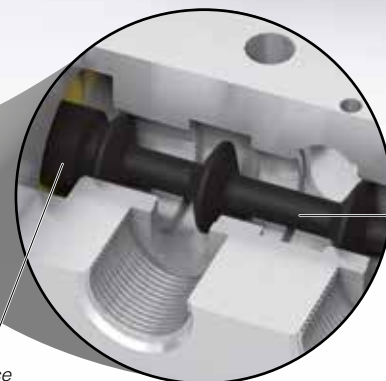
Aluminium spool with nitrile rubber coating, ground to exact size for optimum performance.

Stainless steel end cover screws resist aggressive environments.

Diecast end covers

### Over-moulded single piece aluminium spool

- Reduced product complexity
- Increased flow
- Wide operating temperature range.
- Stable seal performance even with high flow/pressure drop across spool.



Nitrile overmoulding

Precision ground for maximum performance

Order chart - Viking Xtreme air pilot & manual valves - Xtreme operating pressure / temperature

<b>P</b>	<b>2</b>	<b>L</b>
----------	----------	----------

<b>A</b>
----------

<b>X</b>
----------

<b>5</b>
----------

<b>1</b>	<b>1</b>
----------	----------






<b>P</b>	<b>S</b>
----------	----------

Valve family	
<b>P2L</b>	Viking inline valve

Size	
<b>A</b>	1/8
<b>B</b>	1/4
<b>C</b>	3/8
<b>D</b>	1/2

Version	
<b>X</b>	Xtreme duty spool

\* Xtreme duty spool suitable for max operating pressure 16 bar. (P2LAX + P2LBX) 12 bar (P2LCX + P2LDX) Temperature range -40°C to +60°C

Valve type function		
Manual and pneumatic operated		
<b>3</b>		3/2 valve
<b>5</b>		5/2 valve
<b>6</b>		5/3 valve closed centre position
<b>7</b>		5/3 valve pressurised centre
<b>8</b>		5/3 valve vented centre

Shaded part numbers are standard

Port thread	
<b>11</b>	G1/8
<b>12</b>	G1/4
<b>13</b>	G3/8
<b>14</b>	G1/2
<b>91</b>	1/8 NPT
<b>92</b>	1/4 NPT
<b>93</b>	3/8 NPT
<b>94</b>	1/2 NPT
<b>1N *</b>	Namur G1/4
<b>9N *</b>	Namur 1/4 NPT

\* Not available in 3/2 version

Pilot main actuator/return	
<b>J ***</b>	Rotary button - 2 positions
<b>P</b>	Air signal
<b>S</b>	Spring (return only)
<b>V</b>	Lever, 2 positions, 90° to ports
<b>Z ***</b>	Lever, 2 positions, in line with ports
<b>1 **</b>	Lever, 3 positions self centred, 90° to ports
<b>2 **</b>	Lever, held 3 positions, 90° to ports
<b>5 ***</b>	Lever, 3 positions, self centered in line with port
<b>6 ***</b>	Lever, 3 positions, held in position in line with port
<b>7 ***</b>	Rotary button - 3 positions held in position

\*\* Not available in 3/2 version  
\*\*\* Only Available with port threads G1/4 and 1/4 NPT



## Pneumatic pilot operated valves - Xtreme operating pressure / temperature

Max operating pressure 16 bar (A &amp; B) 12 bar (C &amp; D). temp range -40°C to +60°C



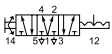
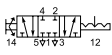
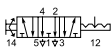
Symbol	Size	Actuation	Return	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code
<b>3/2 valves, temperature -40°C to +60°C</b>							
	G1/8	Air signal	Air signal	1,5	5/5	0,30	<b>P2LAX311PP</b>
	G1/4			1,5	5/5	0,30	<b>P2LBX312PP</b>
	G3/8			1,5	8/8	0,45	<b>P2LCX313PP</b>
	G1/2			1,5	9/9	0,45	<b>P2LDX314PP</b>
	G1/8	Air signal	Spring	3,2	8/15	0,30	<b>P2LAX311PS</b>
	G1/4			3,5	10/20	0,30	<b>P2LBX312PS</b>
	G3/8			3,5	10/30	0,45	<b>P2LCX313PS</b>
	G1/2			3,5	10/30	0,45	<b>P2LDX314PS</b>
<b>5/2 valves, temperature -40°C to +60°C</b>							
	G1/8	Air signal	Air signal	1,5	5/5	0,14	<b>P2LAX511PP</b>
	G1/4			1,5	6/6	0,30	<b>P2LBX512PP</b>
	G3/8			1,5	8/8	0,45	<b>P2LCX513PP</b>
	G1/2			1,5	9/9	0,45	<b>P2LDX514PP</b>
	G1/8	Air signal	Spring	3,2	8/15	0,15	<b>P2LAX511PS</b>
	G1/4			3,5	10/20	0,32	<b>P2LBX512PS</b>
	G3/8			3,5	10/30	0,45	<b>P2LCX513PS</b>
	G1/2			3,5	10/30	0,45	<b>P2LDX514PS</b>
<b>5/3 valves, temperature -40°C to +60°C</b>							
	G1/8	Air signal	Air signal	3,5	10/20	0,15	<b>P2LAX611PP</b>
	G1/4	Closed centre	Self	3,5	12/22	0,33	<b>P2LBX612PP</b>
	G3/8	position	centring	3,5	15/35	0,50	<b>P2LCX613PP</b>
	G1/2			3,5	15/35	0,50	<b>P2LDX614PP</b>
	G1/8	Air signal	Air signal	3,5	10/20	0,15	<b>P2LAX811PP</b>
	G1/4	Vented centre	Self	3,5	12/22	0,33	<b>P2LBX812PP</b>
	G3/8	position	centring	3,5	15/35	0,50	<b>P2LCX813PP</b>
	G1/2			3,5	15/35	0,50	<b>P2LDX814PP</b>
	G1/8	Air signal	Air signal	3,5	10/20	0,15	<b>P2LAX711PP</b>
	G1/4	Pressurised	Self	3,5	12/22	0,33	<b>P2LBX712PP</b>
	G3/8	centre	centring	3,5	15/35	0,50	<b>P2LCX713PP</b>
	G1/2	position		3,5	15/35	0,50	<b>P2LDX714PP</b>





**Pneumatic twist operated valves - Xtreme operating pressure / temperature**

Max operating pressure 16 bar. Temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover Angle	Weight Kg	Order code
<b>3/2 valves, temperature -40°C to +60°C</b>						
	G1/4	Twist	Twist	45	0.34	<b>P2LBX312JJ</b>
<b>5/2 valves, temperature -40°C to +60°C</b>						
	G1/4	Twist	Twist	45	0.37	<b>P2LBX512JJ</b>
<b>5/3 valves, temperature -40°C to +60°C</b>						
	G1/4	Twist	Twist	54	0.41	<b>P2LBX71277</b>
	G1/4	Twist	Twist	54	0.41	<b>P2LBX61277</b>
	G1/4	Twist	Twist	54	0.41	<b>P2LBX81277</b>

## Lever operated directional control valves, lever 90° to ports

Max operating pressure 16 bar (A &amp; B) 12 bar (C &amp; D). temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover angle	Changeover Force	Type	Weight Kg	Order code
<b>3/2 valves, standard temperature / Low temperature, lever 90° to ports</b>								
	G1/8	Lever	Lever	20°	9 N	Std.	0,33	<b>P2LAX311VV</b>
	G1/4	Lever	Lever	20°	9 N	Std.	0,33	<b>P2LBX312VV</b>
	G3/8	Lever	Lever	32°	25 N	Std.	0,40	<b>P2LCX313VV</b>
	G1/2	Lever	Lever	32°	25 N	Std.	0,60	<b>P2LDX314VV</b>
	G1/8	Lever	Spring	20°	10N	Std.	0,33	<b>P2LAX311VS</b>
	G1/4	Lever	Spring	20°	10N	Std.	0,33	<b>P2LBX312VS</b>
	G3/8	Lever	Spring	32°	15 N	Std.	0,40	<b>P2LCX313VS</b>
	G1/2	Lever	Spring	32°	15 N	Std.	0,60	<b>P2LDX314VS</b>
<b>5/2 valves, standard temperature / Low temperature, lever 90° to ports</b>								
	G1/8	Lever	Lever	28°	9 N	Std.	0,18	<b>P2LAX511VV</b>
	G1/4	Lever	Lever	20°	9 N	Std.	0,33	<b>P2LBX512VV</b>
	G3/8	Lever	Lever	32°	25 N	Std.	0,40	<b>P2LCX513VV</b>
	G1/2	Lever	Lever	32°	25 N	Std.	0,60	<b>P2LDX514VV</b>
	G1/8	Lever	Spring	28°	10N	Std.	0,18	<b>P2LAX511VS</b>
	G1/4	Lever	Spring	20°	10N	Std.	0,33	<b>P2LBX512VS</b>
	G3/8	Lever	Spring	32°	15 N	Std.	0,40	<b>P2LCX513VS</b>
	G1/2	Lever	Spring	32°	15 N	Std.	0,60	<b>P2LDX514VS</b>
<b>5/3 valves, low temperature, lever 90° to ports</b>								
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	<b>P2LAX61122</b>
	G1/4	Closed centre position held in three positions		±12°	15 N	Std.	0,33	<b>P2LBX61222</b>
	G3/8			±16°	17 N	Std.	0,71	<b>P2LCX61322</b>
	G1/2			±16°	17 N	Std.	0,73	<b>P2LDX61422</b>
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	<b>P2LAX81122</b>
	G1/4	Exhausted centre position held in three positions		±12°	15 N	Std.	0,33	<b>P2LBX81222</b>
	G3/8			±16°	17 N	Std.	0,71	<b>P2LCX81322</b>
	G1/2			±16°	17 N	Std.	0,73	<b>P2LDX81422</b>
	G1/8	Lever	Lever	±14°	15 N	Std.	0,18	<b>P2LAX71122</b>
	G1/4	Pressure applied centre position held in three positions		±12°	15 N	Std.	0,33	<b>P2LBX71222</b>
	G3/8			±16°	17 N	Std.	0,71	<b>P2LCX71322</b>
	G1/2			±16°	17 N	Std.	0,73	<b>P2LDX71422</b>
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	<b>P2LAX61111</b>
	G1/4	Closed centre position Self centring		±12°	16 N	Std.	0,33	<b>P2LBX61211</b>
	G3/8			±16°	30 N	Std.	0,71	<b>P2LCX61311</b>
	G1/2			±16°	30 N	Std.	0,73	<b>P2LDX61411</b>
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	<b>P2LAX81111</b>
	G1/4	Exhausted centre position Self centring		±12°	16 N	Std.	0,33	<b>P2LBX81211</b>
	G3/8			±16°	30 N	Std.	0,71	<b>P2LCX81311</b>
	G1/2			±16°	30 N	Std.	0,73	<b>P2LDX81411</b>
	G1/8	Lever	Lever	±14°	16 N	Std.	0,18	<b>P2LAX71111</b>
	G1/4	Pressure applied centre position Self centring		±12°	16 N	Std.	0,33	<b>P2LBX71211</b>
	G3/8			±16°	30 N	Std.	0,71	<b>P2LCX71311</b>
	G1/2			±16°	30 N	Std.	0,73	<b>P2LDX71411</b>



**Lever operated directional control valves, lever in line with ports**

Max operating pressure 16 bar. Temp range -40°C to +60°C

Symbol	Size	Actuation	Return	Changeover angle	Changeover Force	Type	Weight Kg	Order code
<b>3/2 valves, temperature -40°C to +60°C, Lever In Line with ports</b>								
	G1/4	Lever	Lever	26°	18 N	Std.	0,42	<b>P2LBX312ZZ</b>
	G1/4	Lever	Spring	26°	18 N	Std.	0,42	<b>P2LBX312ZS</b>
<b>5/2 valves, temperature -40°C to +60°C, Lever In Line with ports</b>								
	G1/4	Lever	Lever	26°	18 N	Std.	0,45	<b>P2LBX512ZZ</b>
	G1/4	Lever	Spring	26°	18 N	Std.	0,45	<b>P2LBX512ZS</b>
<b>5/3 valves, temperature -40°C to +60°C, Lever In Line with ports</b>								
	G1/4	Lever	Lever	15° / 15°	24 N	Std.	0,51	<b>P2LBX61255</b>
	G1/4	Lever	Lever	15° / 15°	24 N	Std.	0,51	<b>P2LBX71255</b>
	G1/4	Lever	Lever	15° / 15°	24 N	Std.	0,51	<b>P2LBX81255</b>
	G1/4	Lever	Lever	15° / 15°	18 N	Std.	0,48	<b>P2LBX61266</b>
	G1/4	Lever	Lever	15° / 15°	18 N	Std.	0,48	<b>P2LBX71266</b>
	G1/4	Lever	Lever	15° / 15°	18 N	Std.	0,48	<b>P2LBX81266</b>

Order chart - Viking Xtreme Normal Operating Pressure / Temperature

<b>P</b>	<b>2</b>	<b>L</b>	<b>A</b>	<b>X</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>E</b>	<b>S</b>	<b>N</b>	<b>D</b>	<b>D</b>	<b>B</b>	<b>4</b>	<b>9</b>
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<b>Valve family</b>	
<b>P2L</b>	Viking inline valve

<b>Size</b>	
<b>A</b>	1/8
<b>B</b>	1/4
<b>C</b>	3/8
<b>D</b>	1/2

<b>Version</b>	
<b>X</b>	Xtreme duty spool

<b>Port thread</b>	
<b>11</b>	G1/8
<b>12</b>	G1/4
<b>13</b>	G3/8
<b>14</b>	G1/2
<b>91</b>	1/8 NPT
<b>92</b>	1/4 NPT
<b>93</b>	3/8 NPT
<b>94</b>	1/2 NPT
<b>1N *</b>	Namur G1/4
<b>9N *</b>	Namur 1/4 NPT

\* Namur version not available in 3/2 function











  

<b>Solenoid pilot type</b>	
<b>N</b>	10 bar / -10°C to 50°C
<b>L**</b>	10 bar / -10°C to 50°C

<b>Solenoid exhaust</b>	
<b>D</b>	Vented
<b>N</b>	Captured/tapped M5
<b>X</b>	15mm solenoid vented

<b>Valve type function</b>		
<b>Solenoid operated with internal supply to solenoid</b>		
<b>3</b>		3/2 valve
<b>5</b>		5/2 valve
<b>6</b>		5/3 valve closed centre position
<b>7</b>		5/3 valve pressurised centre
<b>8</b>		5/3 valve vented centre
<b>Solenoid operated with external pilot supply to solenoids through ports 10 &amp; 12 for 3/2 version and through ports 12 &amp; 14 for 5/2 &amp; 5/3 version</b>		
<b>L</b>		3/2 valve
<b>N</b>		5/2 valve
<b>P</b>		5/3 valve closed centre position
<b>Q</b>		5/3 valve pressurised centre
<b>R</b>		5/3 valve vented centre

<b>Overrides</b>	
<b>A*</b>	None
<b>B*</b>	Flush - non locking
<b>C</b>	Flush - locking
<b>D<sup>1</sup></b>	Extended non-locking
<b>E*</b>	Extended - locking
<b>X</b>	Less 15mm solenoid

\* Only available with enclosure 5  
<sup>1</sup> 22mm solenoid option

<b>Voltage <sup>2</sup></b>			
	<b>AC</b>		<b>DC</b>
	<b>60Hz</b>	<b>50Hz</b>	
<b>40</b>	12		
<b>42</b>	24	22	
<b>45</b>			12
<b>47*</b>			12
<b>48*</b>			24
<b>49</b>			24
<b>53</b>	120	110	
<b>57</b>	240	230	
<b>XX</b>	valve less solenoid/coil		

<sup>2</sup> Shaded part numbers are available from stock  
Unshaded part numbers are available on request but will be subject to minimum order quantities  
Otherwise order coil/solenoid and valve separately.

<b>Pilot main actuator / Return</b>	
<b>E</b>	Solenoid operated valve
<b>S</b>	Spring (return only)
<b>P</b>	Press (return only)

<b>Solenoid enclosure / Lead length</b>	
<b>5</b>	15mm, 3 pin Form C/ISO15217 in line with body
<b>B</b>	22mm 3-pin Industrial Form B with coil
<b>N</b>	22mm solenoid pilot less coil
<b>X</b>	Valve less 15mm solenoid
<b>L**</b>	Low power 22mm solenoid (only available with 24V DC)








  

Shaded part numbers are standard

## Solenoid operated directional control valves (supplied with 22mm solenoid operator less coil)

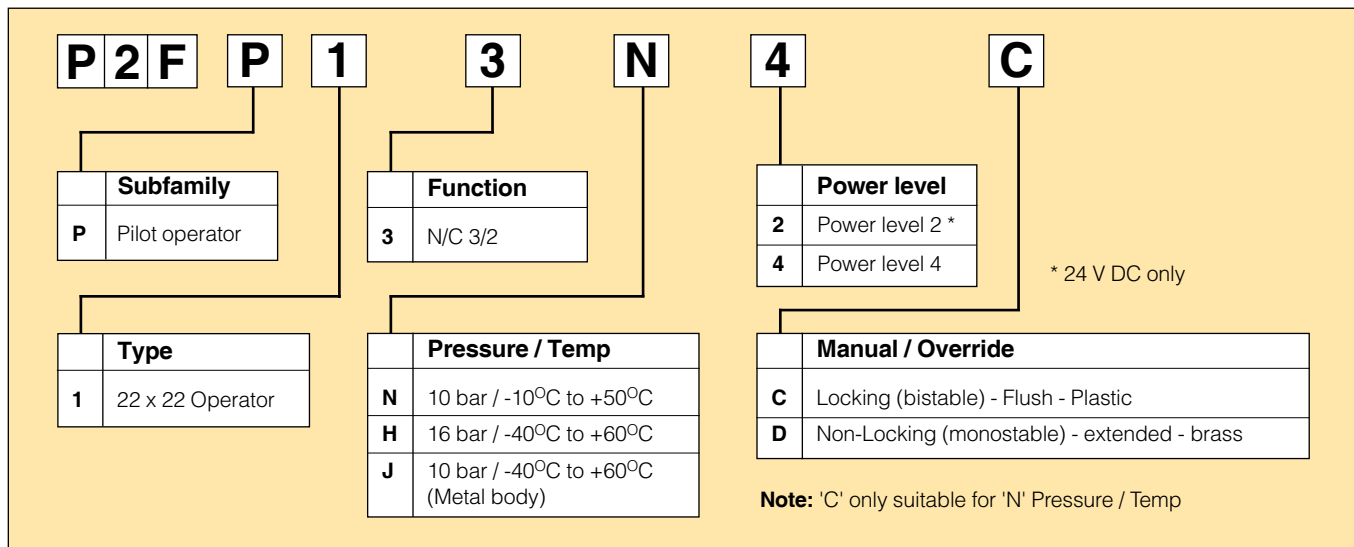
Solenoid plug/connector to be ordered separately.

Internal supply to solenoid valve(s) via port 1.

Symbol	Size	Actuation	Return	Min Operating Pressure (bar)	Changeover time (ms) at 6 bar @20°C actua./return	Weight Kg	Order code
<b>3/2 valves, internal air, standard temperature</b>							
	G1/8	Electric signal	Electric signal	1,5	10/10	0,31	<b>P2LAX311EENDDN</b>
	G1/4			1,5	10/12	0,31	<b>P2LBX312EENDDN</b>
	G3/8			1,5	17/17	0,41	<b>P2LCX313EENDDN</b>
	G1/2			1,5	17/17	0,41	<b>P2LDX314EENDDN</b>
	G1/8	Electric signal	Spring	3,2	18/40	0,31	<b>P2LAX311ESNDDN</b>
	G1/4			3,5	18/45	0,31	<b>P2LBX312ESNDDN</b>
	G3/8			3,5	25/75	0,40	<b>P2LCX313ESNDDN</b>
	G1/2			3,5	25/75	0,40	<b>P2LDX314ESNDDN</b>
<b>5/2 valves, internal air, standard temperature</b>							
	G1/8	Electric signal	Electric signal	1,5	9/9	0,16	<b>P2LAX511EENDDN</b>
	G1/4			1,5	10/10	0,31	<b>P2LBX512EENDDN</b>
	G3/8			1,5	13/13	0,41	<b>P2LCX513EENDDN</b>
	G1/2			1,5	13/13	0,41	<b>P2LDX514EENDDN</b>
	G1/8	Electric signal	Spring	3,2	12/38	0,16	<b>P2LAX511ESNDDN</b>
	G1/4			3,5	14/42	0,31	<b>P2LBX512ESNDDN</b>
	G3/8			3,5	16/60	0,40	<b>P2LCX513ESNDDN</b>
	G1/2			3,5	16/60	0,40	<b>P2LDX514ESNDDN</b>
<b>5/3 valves, internal air, standard temperature</b>							
	G1/8	Electric signal	Electric signal	3,5	15/40	0,17	<b>P2LAX611EENDDN</b>
	G1/4	Closed centre position	Self centring	3,5	18/50	0,33	<b>P2LBX612EENDDN</b>
	G3/8			3,5	20/65	1,00	<b>P2LCX613EENDDN</b>
	G1/2			3,5	20/70	1,00	<b>P2LDX614EENDDN</b>
	G1/8	Electric signal	Electric signal	3,5	15/40	0,17	<b>P2LAX811EENDDN</b>
	G1/4	Vented centre position	Self centring	3,5	18/50	0,33	<b>P2LBX812EENDDN</b>
	G3/8			3,5	20/65	1,00	<b>P2LCX813EENDDN</b>
	G1/2			3,5	20/70	1,00	<b>P2LDX814EENDDN</b>
	G1/8	Electric signal	Electric signal	3,5	15/40	0,17	<b>P2LAX711EENDDN</b>
	G1/4	Pressurised centre position	Self centring	3,5	18/50	0,33	<b>P2LBX712EENDDN</b>
	G3/8			3,5	20/65	1,00	<b>P2LCX713EENDDN</b>
	G1/2			3,5	20/70	1,00	<b>P2LDX714EENDDN</b>



Order key, solenoid operators (22mm)



Technical data

	NC Normal	NC Xtreme	NC 22mm Xtreme (Mobile)	NC 30mm Xtreme (Mobile)	NC 30 mm Metal (Mobile)
Working pressure	0 to 10 bar	0 to 16 bar	0 to 10 bar	0 to 16 bar	0 to 10 bar
Ambient temperature	-10 °C to +50 °C	-40 °C to +60 °C	-40 °C to +60 °C	-40 °C to +60 °C	-40 °C to +60 °C
Orifice	1.3/1.5mm	0.8/1.0mm	0.8/1.0mm	0.8/1.0mm	1,2 mm / 1,3mm
Flow Qn @ 6 bar input					
1 bar press drop. 1-2 l/m	55	20	20	20	60
Flow Qn @ 6 bar input					
1 bar press drop. 2-3 l/m	70	30	30	30	70
Power (DC)	4.8W (2W Low power)	4.8W	6.0W	6.8W	6.8W
Power (AC)	8.5VA	8.5VA			
Voltage tolerance (Standard)	+/- 10%	+/- 10%			
Voltage tolerance (Mobile)			-10 to +30%	+/- 30%	+/- 30%
Duty cycle	100%	100%	100%	100%	100%
Insulation class	F	F	F	F	F
Electric connection	Ind Form B	Ind Form B	Ind Form B	Form A	Form A
Protection	IP65	IP65	IP65	IP65	IP65
Shock & Vibration	-	0 to +5g	0 to +5g	0 to +5g	0 to 5g
Approval	UL coil version available on request				
Working media	All neutral media such as compressed air and inert gases.				

Mobile applications

Solenoid operated Viking Xtreme duty valves for Mobile applications are fitted with the P2FP13H4D solenoid pilot operator. It has a 22mm footprint with 0.8/1.0mm orifice and will accept 22mm or 30mm coil options. The choice of coil option will depend on the voltage tolerance, operating ambient temperature range and maximum operating pressure. Use the technical data in the table above before selecting the coil type required, or contact our technical department.

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors/ cable plugs with LED's listed on page 54 include this type of circuit protection.

Materials

Pilot Valve

Body:	Polyamide
Body:	Anodised aluminium for J type
Armature tube:	Brass (Normal) Stainless Steel 16 bar mobile
Plunger & core:	Corrosion resistant Cr-Ni steel
Seals:	FKM (Viton™)
Screws:	Stainless steel

Coil

Encapsulation material:	Thermoplastic
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## 22mm solenoid operator part numbers and spares

## Solenoids coil standard 22mm

Voltage	Voltage tolerance	Temperature	Order code Form B	Power	Weight (Kg)	Use with Operator type
12V 50Hz	+/-10%	-10°C / 50°C	<b>P2FCB440</b>	8,5VA	0.053	P2FP13N4
24V 50/60Hz	+/-10%	-10°C / 50°C	<b>P2FCB442</b>	8,5VA	0.053	P2FP13N4
48V 50/60Hz	+/-10%	-10°C / 50°C	<b>P2FCB449</b>	8,5VA	0.053	P2FP13N4
120V/50Hz, 120V/60Hz	+/-10%	-10°C / 50°C	<b>P2FCB453</b>	8,5VA	0.053	P2FP13N4
230V/50Hz, 230V/60Hz	+/-10%	-10°C / 50°C	<b>P2FCB457</b>	8,5VA	0.053	P2FP13N4
12V DC	+/-10%	-10°C / 50°C	<b>P2FCB445</b>	4,8W	0.053	P2FP13N4
24V DC	+/-10%	-10°C / 50°C	<b>P2FCB449</b>	4,8W	0.053	P2FP13N4
48V DC	+/-10%	-10°C / 50°C	<b>P2FCB451</b>	4,8W	0.053	P2FP13N4

For pressure 0 to 10 bar

## Solenoids coil low power 22mm

Voltage	Order code Form B	Power	Weight (Kg)	Use with Operator type
24V DC Low power	<b>P2FCB249</b>	2W	0.093	P2FP13N2

For pressure 0 to 10 bar

## Solenoids coil 22mm Xtreme

Voltage	Voltage tolerance	Temperature	Order code Form B	Power	Weight (Kg)	Use with Operator type
12V 50Hz	+/-10%	-40°C / 60°C	<b>P2FCB440</b>	8,5VA	0.053	P2FP13NH4D
24V 50/60Hz	+/-10%	-40°C / 60°C	<b>P2FCB442</b>	8,5VA	0.053	P2FP13NH4D
48V 50/60Hz	+/-10%	-40°C / 60°C	<b>P2FCB449</b>	8,5VA	0.053	P2FP13NH4D
120V/50Hz, 120V/60Hz	+/-10%	-40°C / 60°C	<b>P2FCB453</b>	8,5VA	0.053	P2FP13NH4D
230V/50Hz, 230V/60Hz	+/-10%	-40°C / 60°C	<b>P2FCB457</b>	8,5VA	0.053	P2FP13NH4D
12V DC	+/-10%	-40°C / 60°C	<b>P2FCB445</b>	4,8W	0.053	P2FP13NH4D
24V DC	+/-10%	-40°C / 60°C	<b>P2FCB449</b>	4,8W	0.053	P2FP13NH4D
48V DC	+/-10%	-40°C / 60°C	<b>P2FCB451</b>	4,8W	0.053	P2FP13NH4D

For pressure 0 to 16 bar for A+B &amp; 12 bar for C+D

## Solenoids coil mobile voltage 22mm

Voltage	Voltage tolerance	Temperature	Order code Form B	Power	Weight (Kg)	Use with Operator type
12V DC	-10% / +30%	-40°C / + 60°C	<b>P2FCB447</b>	6W	0.053	P2FP13H4D
24V DC	-10% / +30%	-40°C / + 60°C	<b>P2FCB448</b>	6W	0.053	P2FP13H4D

For pressure 0 to 16 bar for A+B &amp; 12 bar for C+D

## Solenoids coil Mobile voltage 30mm

Voltage	Voltage tolerance	Temperature	Order code Form A	Power	Weight (Kg)	Use with Operator type
12V DC	+/- 30%	-40°C / +60°C	<b>P2FCA447</b>	6,8W	0.09	P2FP13H4D
24V DC	+/- 30%	-40°C / +60°C	<b>P2FCA448</b>	6,8W	0.09	P2FP13H4D
48V DC	+/- 30%	-40°C / +60°C	<b>P2FCA474</b>	6,8W	0.09	P2FP13H4D
72V DC	+/- 30%	-40°C / +60°C	<b>P2FCA470</b>	6,8W	0.09	P2FP13H4D
96V DC	+/- 30%	-40°C / +60°C	<b>P2FCA471</b>	6,8W	0.09	P2FP13H4D
110V DC	+/- 30%	-40°C / +60°C	<b>P2FCA472</b>	6,8W	0.09	P2FP13H4D

For pressure 0 to 16 bar for A+B &amp; 12 bar for C+D

## Solenoids coil Mobile voltage 30mm

Voltage	Voltage tolerance	Temperature	Order code Form A	Power	Weight (Kg)	Use with Operator type
12V DC	+/- 30%	-40°C / +60°C	<b>P2FCA447</b>	6,8W	0.09	P2FP13J4
24V DC	+/- 30%	-40°C / +60°C	<b>P2FCA448</b>	6,8W	0.09	P2FP13J4
48V DC	+/- 30%	-40°C / +60°C	<b>P2FCA474</b>	6,8W	0.09	P2FP13J4
72V DC	+/- 30%	-40°C / +60°C	<b>P2FCA470</b>	6,8W	0.09	P2FP13J4
96V DC	+/- 30%	-40°C / +60°C	<b>P2FCA471</b>	6,8W	0.09	P2FP13J4
110V DC	+/- 30%	-40°C / +60°C	<b>P2FCA472</b>	6,8W	0.09	P2FP13J4

For pressure 0 to 10 bar

**Spare Solenoid Nuts**

**Valves requiring captured exhaust should be fitted with plastic knurled nut**

Order code
<b>P2FNP</b>

**Valves with vented exhaust are fitted with diffuser plastic nut**

Order Code
<b>P2FND</b>

**Spare Solenoid Operators**

**Solenoid pilot operator 22mm NC, Normal duty (Max Operating pressure 10bar, Temp -10°C to +50°C)**

Order code (with locking bi-stable m/o)	weight Kg	Order code (with Non-locking monostable m/o)	weight Kg
<b>P2FP13N4C</b>	0.05kg	<b>P2FP13N4D</b>	0.05kg

**Low power pilot operator NC, Normal duty (Max Operating pressure 10bar, Temp -10°C to +50°C)**

Order code (with locking bi-stable m/o)	weight Kg	Order code (with Non-locking monostable m/o)	weight Kg
<b>P2FP13N2C</b>	0.05kg	<b>P2FP13N2D</b>	0.05kg

**Solenoid pilot operator 22mm NC, Xtreme duty (Max Operating pressure 16bar, Temp -40°C to +60°C)**

Order code (with Non-locking monostable m/o)	weight Kg
<b>P2FP13H4D</b>	0.05kg

**Solenoid pilot operator 22mm NC Mobile metal (Max Operating pressure 10bar, Temp -40°C to +60°C)**



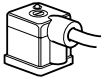
Order code (with brass non locking m/o)	weight Kg	Order code (with brass locking m/o)	weight Kg	Order code No manual override	weight Kg
<b>P2FP13J4B</b>	0.04kg	<b>P2FP13J4C</b>	0.04kg	<b>P2FP13J4A</b>	0.04kg

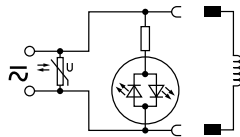
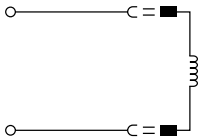
**Note.**

Solenoid pilot operators are fitted to the Viking valve range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings.

**Coils and connectors must be ordered separately.**

**Solenoid Connectors / Cable Plugs EN175301-803**

	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B	Order code 30mm Form A/ISO4400
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	<b>P8C-C</b>		
	24V DC LED and protection IP65	<b>P8C-C26C</b>		
	110V AC LED and protection IP65	<b>P8C-C21E</b>		
With standard screw 	Standard IP65 without flying lead	<b>P8C-D</b>	<b>3EV10V10</b>	<b>3EV290V10</b>
	With LED and protection 24V AC/DC	<b>P8C-D26C</b>	<b>3EV10V20-24</b>	<b>3EV290V20-24</b>
	With LED and protection 110V AC/DC	<b>P8C-D21E</b>	<b>3EV10V20-110</b>	<b>3EV290V20-110</b>
	With LED and protection 230V AC		<b>3EV10V20-230</b>	
With cable 	Standard with 2m cable IP65	<b>P8L-C2</b>		
	Standard with 5m cable IP65	<b>P8L-C5</b>		
	24V AC/DC, 2m cable LED and protection IP65	<b>P8L-C226C</b>		
	24V AC/DC, 5m cable LED and protection IP65	<b>P8L-C526C</b>	<b>3EV10V20-24L5</b>	<b>3EV290V20-24L5</b>
	24V AC/DC, 10m cable LED and protection IP65	<b>P8L-CA26C</b>		
	110V AC/DC, 2m cable LED and protection IP65	<b>P8L-C221E</b>		
	110V AC/DC, 5m cable LED and protection IP65	<b>P8L-C521E</b>	<b>3EV10V20-110L5</b>	
230V AC, 5m cable LED and protection IP65		<b>3EV10V20-230L5</b>		



<b>P8C-C</b>	<b>P8C-D26C</b>	<b>P8L-C226C</b>
<b>P8C-D</b>	<b>P8C-D21E</b>	<b>P8L-C526C</b>
<b>P8L-C2</b>	<b>P8C-C26C</b>	<b>P8L-CA26C</b>
<b>P8L-C5</b>	<b>P8C-C21E</b>	<b>P8L-C221E</b>
<b>3EV10V10</b>		<b>P8L-C521E</b>
<b>3EV290V10</b>	<b>3EV10V20-24</b>	<b>3EV10V20-24L5</b>
	<b>3EV10V20-110</b>	<b>3EV10V20-110L5</b>
	<b>3EV10V20-230</b>	<b>3EV10V20-230L5</b>



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climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# H Series Micro

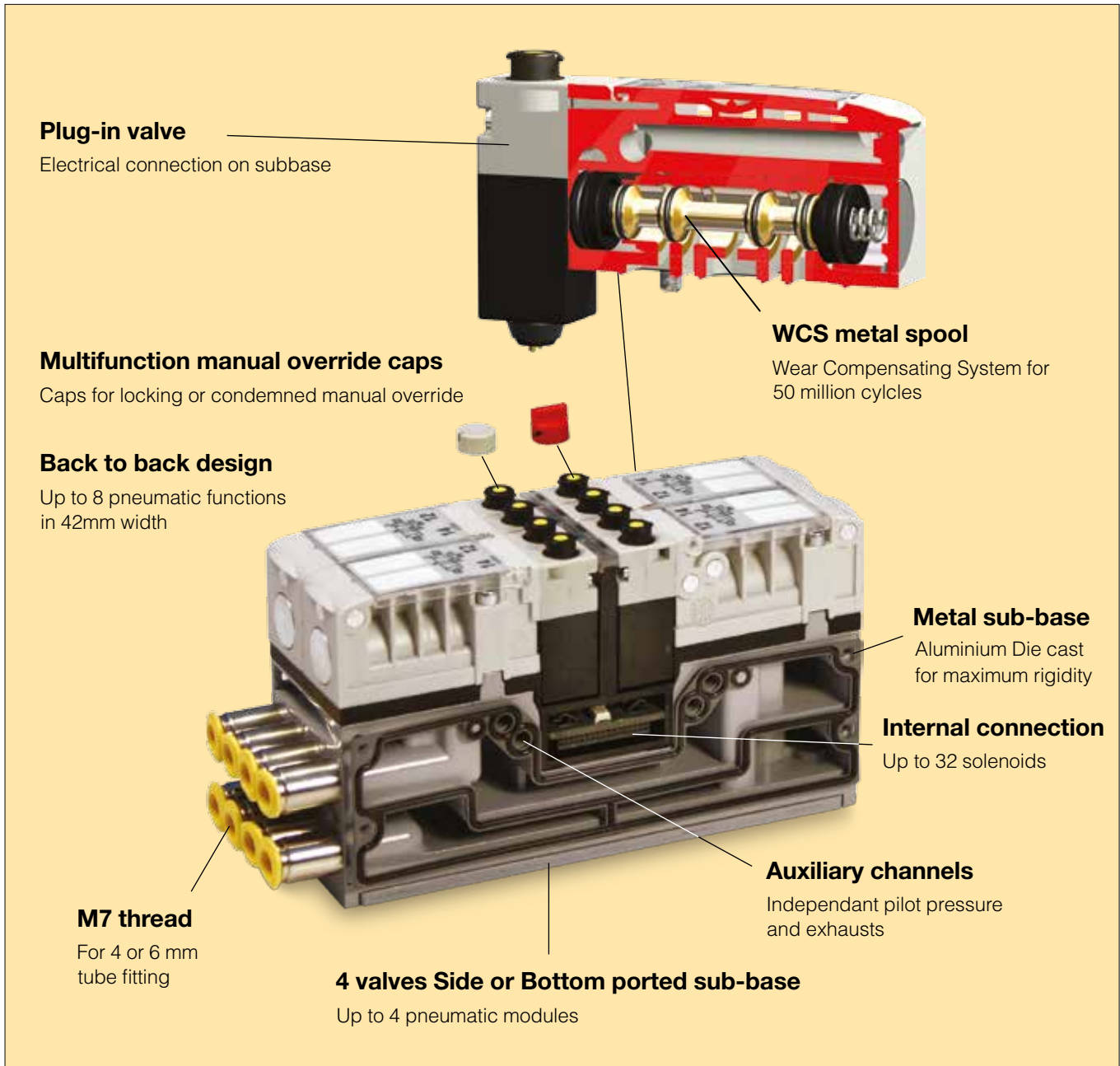
Plug-in valve island

PDE2597TCUK



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**Material Specification**

Valve spool :	Brass
Valve spool enclosure :	Brass
Dynamic seals :	Nitrile
Valve body :	Polyamide reinforced fibreglass
Seals :	Nitrile
Springs :	Stainless steel
Top cover :	Polyester
Subbase - End plates :	Painted aluminium

**Certification**

EMC / CE mark. :	According to EN 61 000-6-2
Dust & water protection :	IP65 according to EN 60529



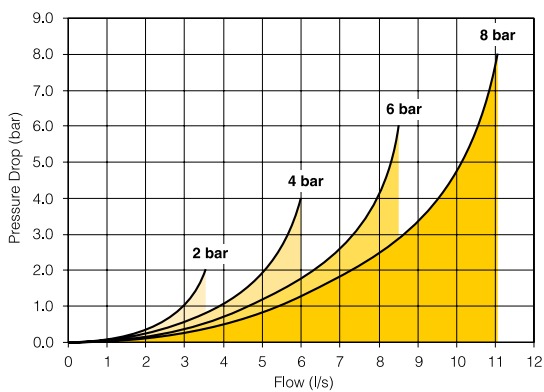
**Flow Characteristics**

**Dual 3/2**



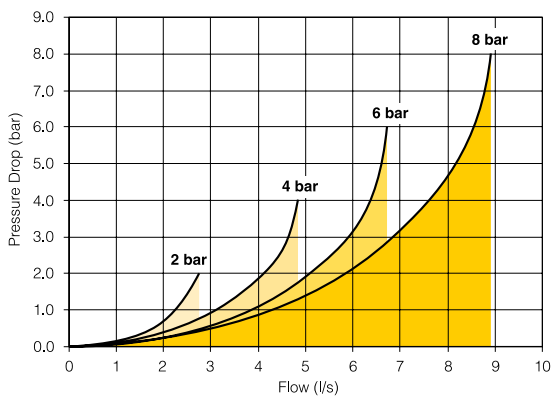
Operating pressure :	2,7 to 8,3 bar
Change-over time (side 14)	Actua. 15 ms Return 20 ms P = 6b
Change-over time (side 12)	15 ms / 25 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,6 NI/s Qmax = 8,4 NI/s

**5/2 single and double solenoid**



Operating pressure single solenoid:	2,7 to 8,3 bar
Operating pressure double solenoid:	1,7 to 8,3 bar
Change-over time single solenoid:	Actua. 15 ms Return 25 ms P = 6b
Change-over time double solenoid:	13 ms / 13 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,7 NI/s Qmax = 8,5 NI/s

**5/3 all ports blocked**

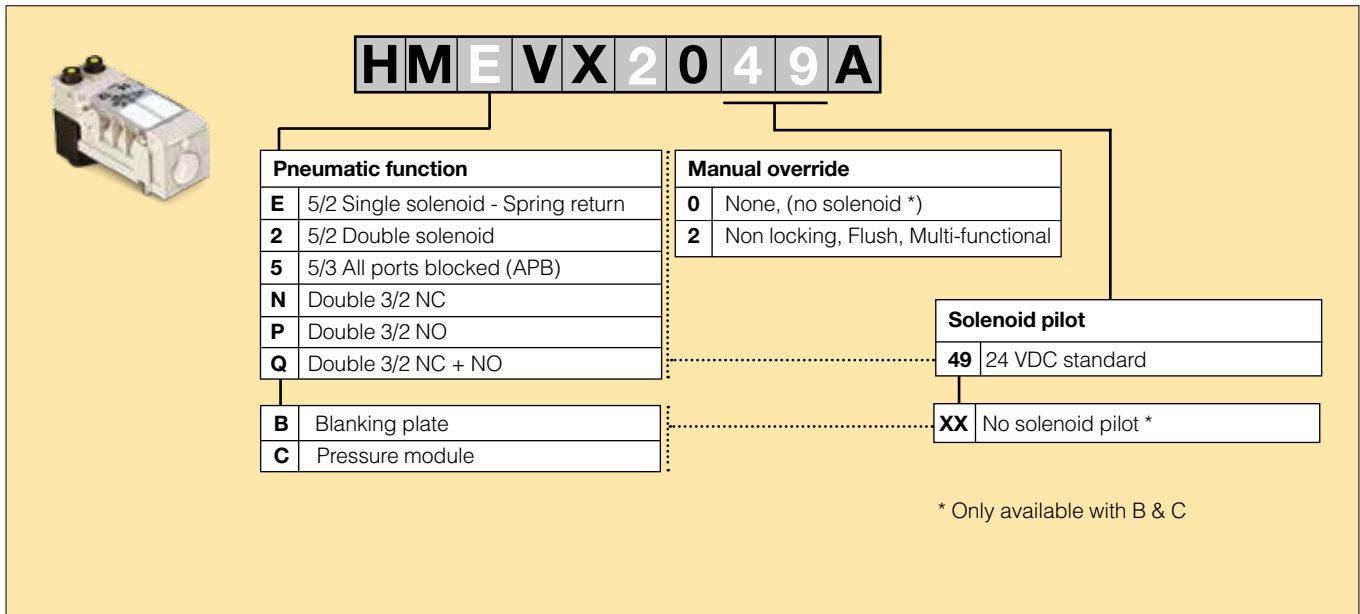


Operating pressure :	2,7 to 8,3 bar
Change-over time	Actua. 20 ms Return 20 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1 NI/s x bar b = 0,14 Qn = 3,8 NI/s Qmax = 6,7 NI/s

**Characteristics**

Fluid :	Air or inert gas Filtered 40 μ Class 5 (according to ISO 8573-1)	Operating pressure :	-0.9 to 8,3 bar with external pressure 6 bar
Storage temperature :	-40 °C to + 70 °C	Piloting pressure :	2.7 to 8.3 bar
Working temperature	-15 °C to + 50°C	Exhaust collection :	Independant exhaust collection
Vibration :	according to IEC 68-2-6 2G to 150 Hz	Rated coil voltage :	24 VDC -15 % / +10 %
Shock :	according to IEC 68-2-27 15G 11 ms	Electrical connection:	Not polarised
		Coil insulation :	Class B
		Power consumption :	1 W (42 mA) with LED
		Duty factor :	100 % at 20°C

Valve ordering chart



**HMEVX2049A**

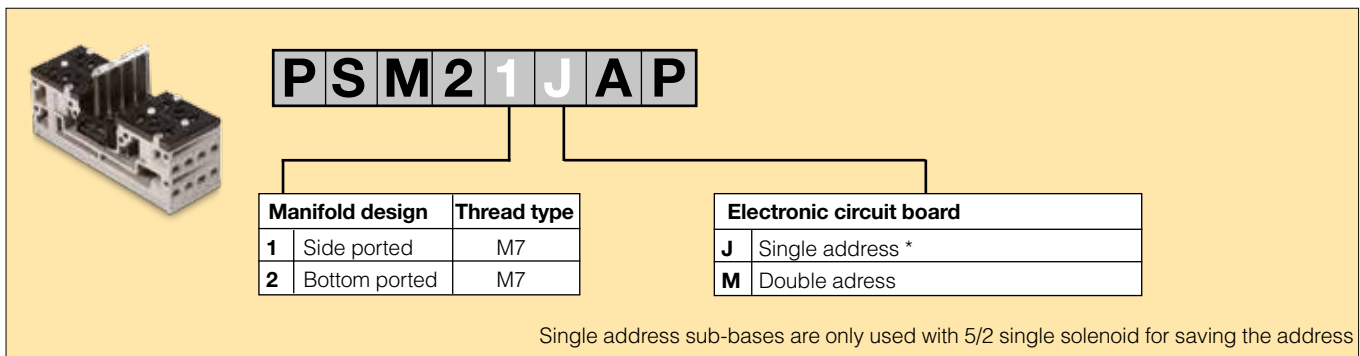
Pneumatic function		Manual override	
<b>E</b>	5/2 Single solenoid - Spring return	<b>0</b>	None, (no solenoid *)
<b>2</b>	5/2 Double solenoid	<b>2</b>	Non locking, Flush, Multi-functional
<b>5</b>	5/3 All ports blocked (APB)		
<b>N</b>	Double 3/2 NC		
<b>P</b>	Double 3/2 NO		
<b>Q</b>	Double 3/2 NC + NO		

Solenoid pilot	
<b>49</b>	24 VDC standard
<b>XX</b>	No solenoid pilot *

<b>B</b>	Blanking plate
<b>C</b>	Pressure module

\* Only available with B & C

Manifold ordering chart (without valve module and fitting)



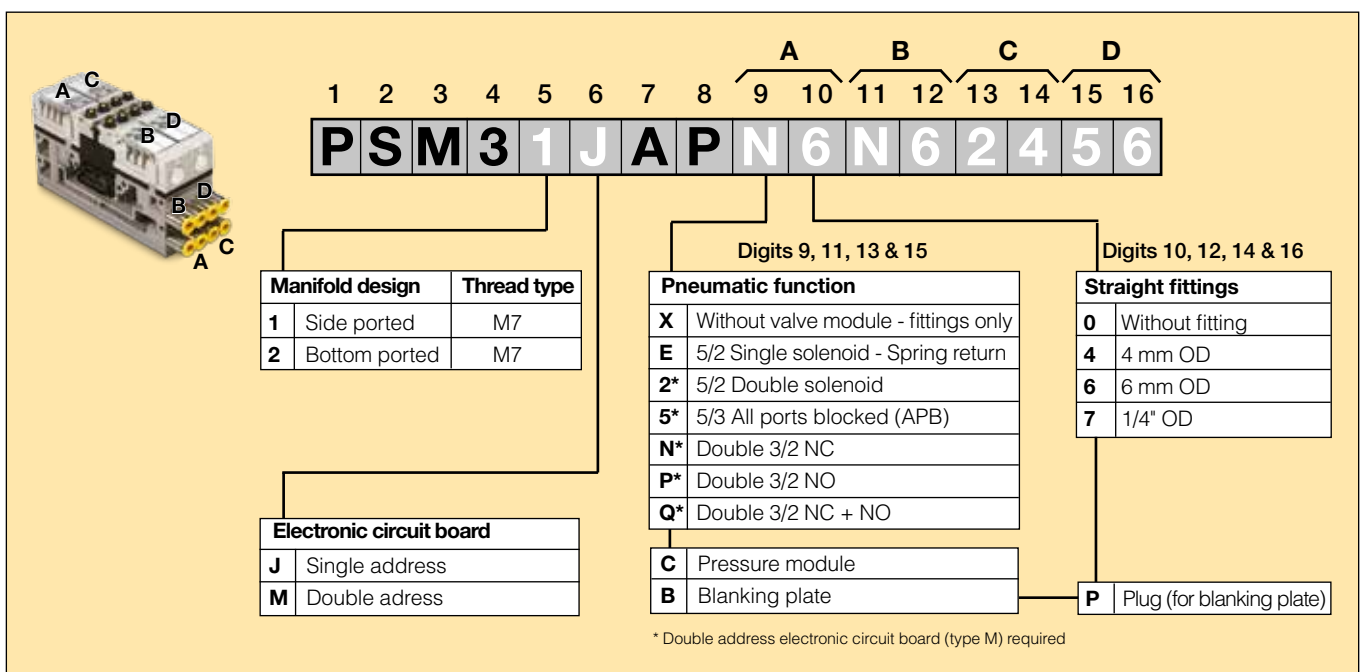
**PSM21JAP**

Manifold design	Thread type
<b>1</b>	Side ported M7
<b>2</b>	Bottom ported M7

Electronic circuit board	
<b>J</b>	Single address *
<b>M</b>	Double address

Single address sub-bases are only used with 5/2 single solenoid for saving the address

Manifold ordering chart (complete with valve modules and/or fittings)



**PSM31JAPN6N62456**

Manifold design	Thread type
<b>1</b>	Side ported M7
<b>2</b>	Bottom ported M7

Electronic circuit board	
<b>J</b>	Single address
<b>M</b>	Double address











Pneumatic function	
<b>X</b>	Without valve module - fittings only
<b>E</b>	5/2 Single solenoid - Spring return
<b>2*</b>	5/2 Double solenoid
<b>5*</b>	5/3 All ports blocked (APB)
<b>N*</b>	Double 3/2 NC
<b>P*</b>	Double 3/2 NO
<b>Q*</b>	Double 3/2 NC + NO

Straight fittings	
<b>0</b>	Without fitting
<b>4</b>	4 mm OD
<b>6</b>	6 mm OD
<b>7</b>	1/4" OD



<b>C</b>	Pressure module
<b>B</b>	Blanking plate
<b>P</b>	Plug (for blanking plate)

\* Double address electronic circuit board (type M) required











### Solenoid operated valve fitted with 24 VDC solenoid

	Symbol	Description	Weight (g)	Order code
 <p>Including multi-function manual override cap</p>		Double 3/2 NC + NC	60	<b>HMNVX2049A</b>
		Double 3/2 NO + NO	60	<b>HMPVX2049A</b>
		Double 3/2 NC + NO	60	<b>HMQVX2049A</b>
		5/2 single solenoid - Spring return	49	<b>HMEVX2049A</b>
		5/2 double solenoid	60	<b>HM2VX2049A</b>
		5/3 all ports blocked (APB)	65	<b>HM5VX2049A</b>
		Blanking module kit (including two M7 plugs for manifold)	30	<b>HMBVX00XXA</b>
		Additional pressure module	30	<b>HMCVX00XXA</b>



### Metal manifold for 4 valves (M7 threaded)

	Description	Weight (g)	Order code
 <p>Side ported</p>	4 position manifold single electrical address	332	<b>PSM21JAP</b>
	4 position manifold double electrical address	332	<b>PSM21MAP</b>
 <p>Bottom ported</p>	4 position manifold single electrical address	310	<b>PSM22JAP</b>
	4 position manifold double electrical address	310	<b>PSM22MAP</b>


### Complete manifold without fitting (M7 threaded)

	Symbol	Description	Weight (g)	Order code
 <p>Side ported</p>		4 x Double 3/2 NC + NC	572	<b>PSM31MAPN0N0N0N0</b>
		4 x 5/2 single solenoid - Spring return	528	<b>PSM31JAPE0E0E0E0</b>
		4 x 5/2 double solenoid	572	<b>PSM31MAP20202020</b>
		4 x 5/3 all ports blocked (APB)	592	<b>PSM31MAP50505050</b>
 <p>Bottom ported</p>		4 x Double 3/2 NC + NC	550	<b>PSM32MAPN0N0N0N0</b>
		4 x 5/2 single solenoid - Spring return	506	<b>PSM32JAPE0E0E0E0</b>
		4 x 5/2 double solenoid	550	<b>PSM32MAP20202020</b>
		4 x 5/3 all ports blocked (APB)	570	<b>PSM32MAP50505050</b>


## Pneumatic accessories

	Description	Size	Tube OD	Material	Order code
	Straight pneumatic connector for sub-base and <b>Px</b>	M7	4 mm	Metal	<b>F28PMB4M7MD</b>
		M7	6 mm	Metal	<b>F28PMB6M7MD</b>
	Straight pneumatic connector for <b>Ex</b>	1/8"	6 mm	Metal	<b>F4PMB6-1/8</b>
		3/8"	8 mm	Metal	<b>F4PB8-3/8</b>
		3/8"	10 mm	Metal	<b>F4PB10-3/8</b>
Straight pneumatic connector for Pressure and Exhaust ports	3/8"	12 mm	Metal	<b>F4PB12-3/8</b>	
	Muffler for <b>Ex</b>	1/8"		Metal	<b>ESB12MC</b>
		1/8"		Plastic	<b>P6M-PAB1</b>
	Muffler for exhaust port	3/8"		Sintered metal	<b>9090050900</b>

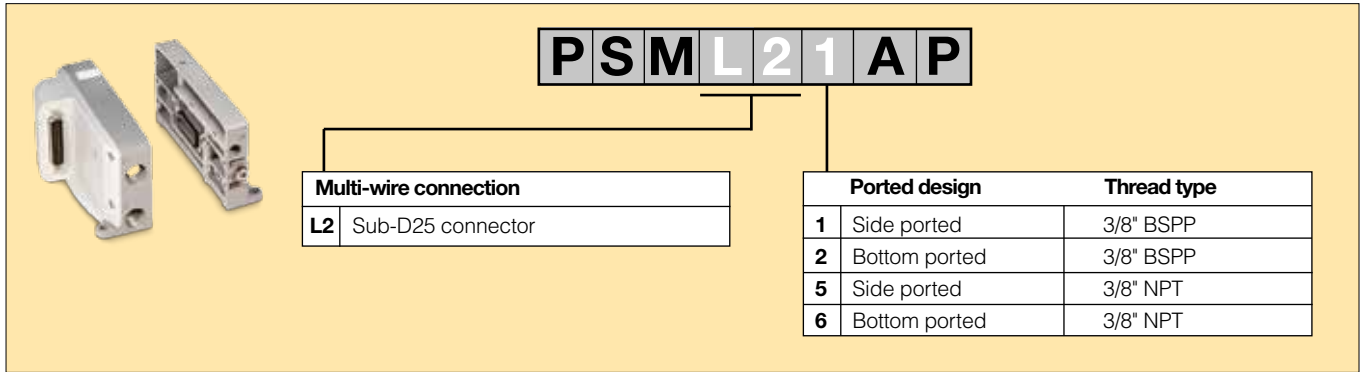
## Multi-pressure inter-manifold seal plate

	Description	Pressure port	Exhaust port	Weight (g)	Order code
	Inter-manifold seal plate	Passing / Passing	Passing	16	<b>PSM0001</b>
		Passing / Block	Passing	20	<b>PSM0002</b>
		Passing / Block	Block	30	<b>PSM0003</b>
		Block / Block	Block	40	<b>PSM0004</b>

## Spare parts

	Description	Weight (g)	Order code
	24 VDC Pilot solenoid with screws	11	<b>PSM0010</b>
	Set of 10 multifunction manual override caps	15	<b>PSM0011</b>
	Set of 5 valve manifold gaskets and 10 screws	25	<b>PSM0012</b>
	Set of 10 M7 plugs for auxiliary pressure selection	30	<b>PSM0013</b>
	Set of 10 labels (in the P/N, <b>x</b> has to be replaced with the valve function letter, see page 14)	5	<b>PSM002x</b>
	Set of 10 manifold to manifold M3 screws	20	<b>PSM0014</b>

**Multi-connection head module**



**P S M L 2 1 A P**

Multi-wire connection	
<b>L2</b>	Sub-D25 connector

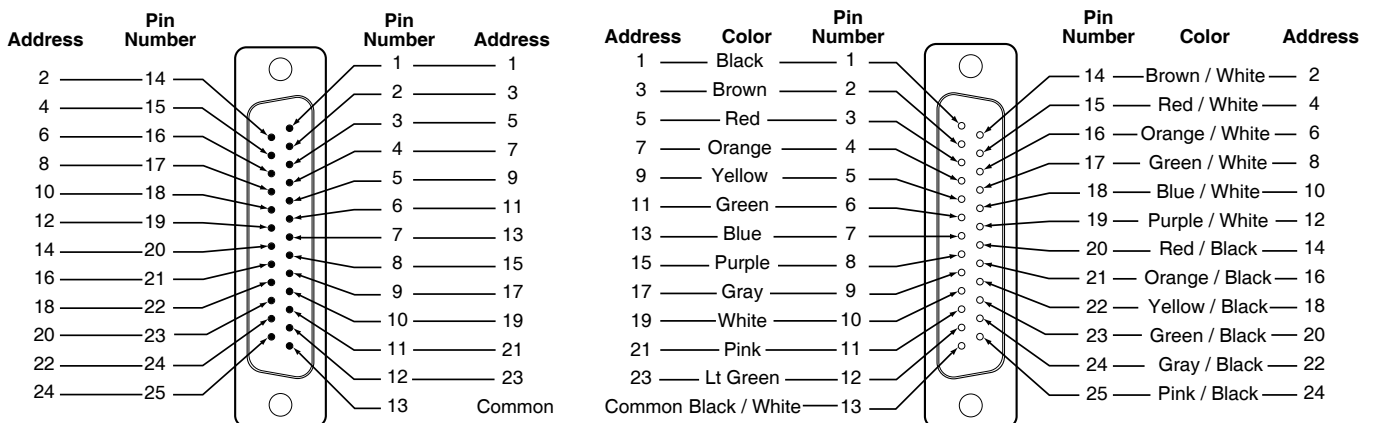
Ported design		Thread type
<b>1</b>	Side ported	3/8" BSPP
<b>2</b>	Bottom ported	3/8" BSPP
<b>5</b>	Side ported	3/8" NPT
<b>6</b>	Bottom ported	3/8" NPT

**Sub-D25 connection**

Up to 24 solenoids on standard Sub-D25 connector.




**Technical data**




Rated voltage :	24 VDC
Maximum addresses :	24
Maximum energised simultaneously :	24
Electrical connection :	Sub-D25 pin DIN 41652, MIL-C-24308, NFC93425 type HE5
Polarity :	PNP and NPN compatible (solenoids not polarized)
Dust and water protection :	IP65 rated with properly assembled IP65 rated cable

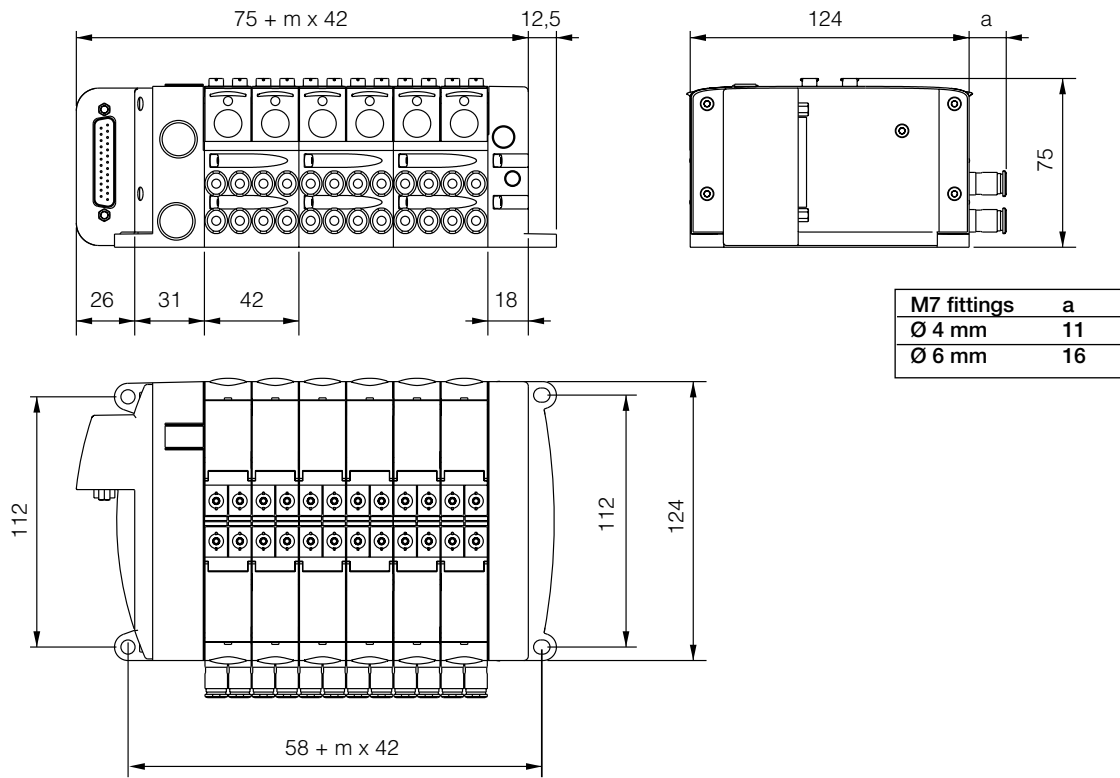
**Electrical multi-pole end modules**

	Description	Sub-base design	Thread type	Weight (g)	Order code
	Sub-D25 ends module	Side ported	3/8" BSPP	250	<b>PSML21AP</b>
		Bottom ported	3/8" BSPP	250	<b>PSML22AP</b>

**Electrical accessories**

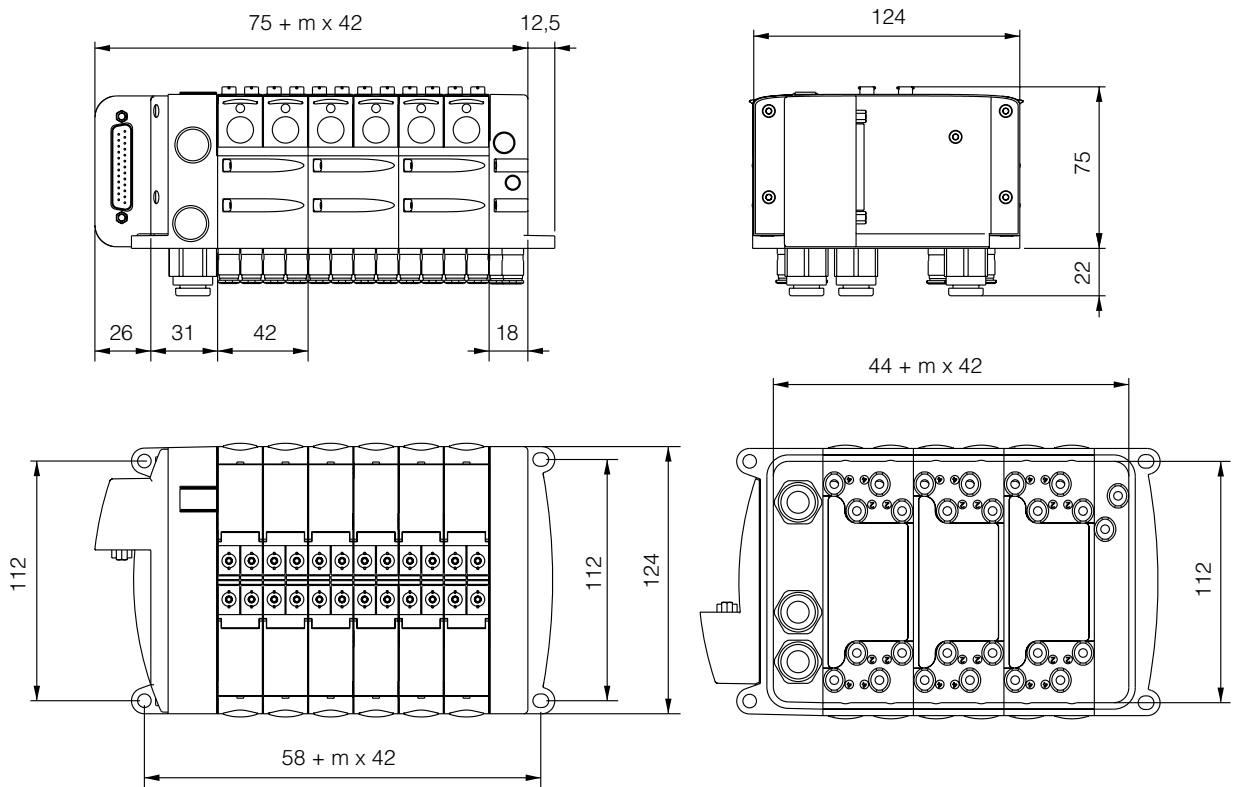
	Description	Cable length	Weight (g)	Order code
	Sub-D25 connector IP40 with flying leads multi-cable	3 m	380	<b>P8LMH25M3A</b>
		9 m	780	<b>P8LMH25M9A</b>
<b>P8LMH25M3A</b>	Sub-D25 connector IP65 with flying leads multi-cable	9 m	790	<b>P8LMH25B9A</b>

**SubD25 - Side ported**



**Note:**  
 m = number of manifolds  
 (one manifold for 4 valves  
 modules)

**SubD25 - Bottom ported**







aerospace  
 climate control  
 electromechanical  
 filtration  
 fluid & gas handling  
 hydraulics  
**pneumatics**  
 process control  
 sealing & shielding



# ISOMAX DX ISO Valve Series

Catalogue PDE2568TCUK June 2016

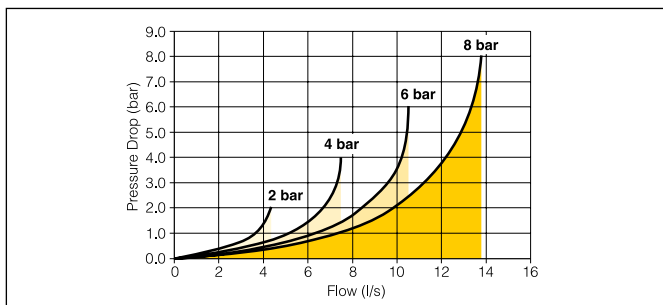


ENGINEERING YOUR SUCCESS.

## ISOMAX Flow Characteristics

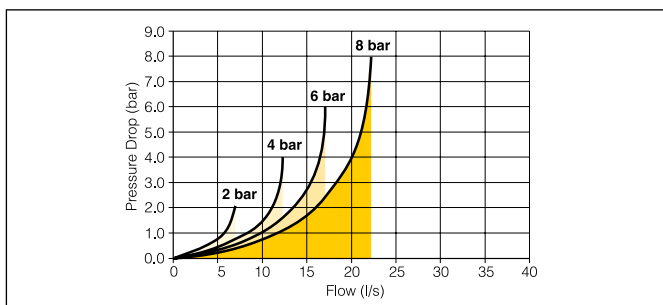
Flow capacities in accordance with ISO6358, for 5/2 function. 5/3 function are around 10 to 20% less.

### Technical Data ISOMAX Size 02



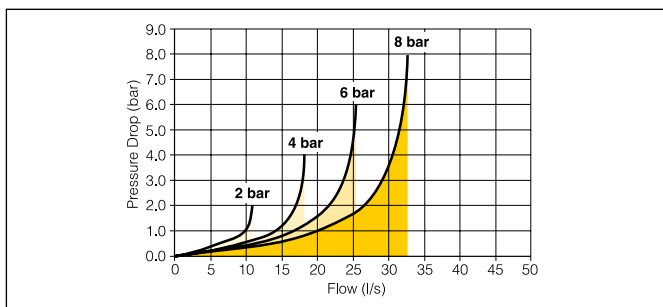
Operating pressure.	
5/2 Spring return	4,0 - 10 bar
5/2 Differential	3,0 - 10 bar
5/2 Double solenoid or pneumatic	2,0 - 10 bar
5/3 Double solenoid or pneumatic	4,0 - 10 bar
Working temperature.	
-10°C to + 60°C	
Flow (acc. to ISO 6358)	
c = 1,5 NI/s x bar	
b = 0,25	
Qn = 6,3 l/s	
Qmax = 10,6 l/s	

### Technical Data ISOMAX Size 01



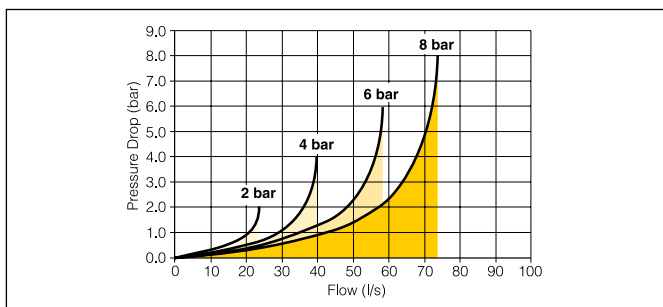
Operating pressure.	
5/2 Spring return	4,0 - 10 bar
5/2 Differential	3,0 - 10 bar
5/2 Double solenoid or pneumatic	2,0 - 10 bar
5/3 Double solenoid or pneumatic	4,0 - 10 bar
Working temperature.	
-10°C to + 60°C	
Flow (acc. to ISO 6358)	
c = 2,5 NI/s x bar	
b = 0,25	
Qn = 9,8 l/s	
Qmax = 17,1 l/s	

### Technical Data ISOMAX Size 1



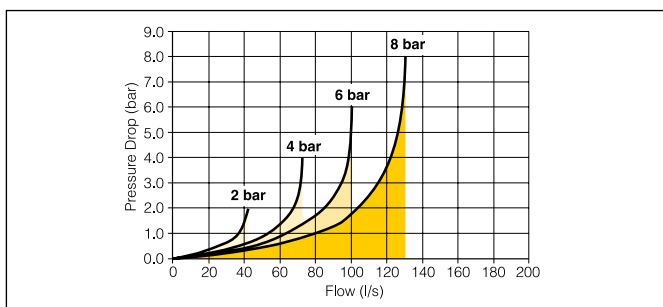
Operating pressure.	
5/2 Spring return	3,0 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,5 - 10 bar
Pneumatic version	
12 bar	
Working temperature.	
-10°C to + 60°C	
Flow (acc. to ISO 6358)	
c = 3,8 NI/s x bar	
b = 0,35	
Qn = 17,2 l/s	
Qmax = 25,5 l/s	

### Technical Data ISOMAX Size 2



Operating pressure.	
5/2 Spring return	2,5 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,0 - 10 bar
Pneumatic version	
12 bar	
Working temperature.	
-10°C to + 60°C	
Flow (acc. to ISO 6358)	
c = 8,2 NI/s x bar	
b = 0,35	
Qn = 38,3 l/s	
Qmax = 58,7 l/s	

### Technical Data ISOMAX Size 3




Operating pressure.	
5/2 Spring return	2,5 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,0 - 10 bar
Pneumatic version	
12 bar	
Working temperature.	
-10°C to + 60°C	
Flow (acc. to ISO 6358)	
c = 14,5 NI/s x bar	
b = 0,35	
Qn = 64,0 l/s	
Qmax = 101,0 l/s	

**ISOMAX - ISO 5599-1 - Sizes 1, 2 & 3**

**Pneumatic remote pilot or CNOMO operator - DIN or M12 connection**

**Order chart**



**For Electro-Pneumatic pilot valve only  
Solenoid valve operator definition**

**DX 1 - 6 51 - B L 49**

Size	
1	Size 1
2	Size 2
3	Size 3

Pilot	
4	Pneumatic
6	Electro-Pneumatic

Valve function	
----------------	--

Internal pilot supply	
06	5/2 double solenoid
56	5/2 double solenoid, 14 prioritised
21	5/2 single solenoid, spring return
51	5/2 single solenoid, differential return
11	5/3 double solenoid vented centre
13	5/3 double solenoid pressurised center *
16	5/3 double solenoid closed centre

External pilot 14 supply / Capture exhaust 12	
05	5/2 double solenoid
59	5/2 double solenoid, 14 prioritised
23	5/2 single solenoid, spring return
54	5/2 single solenoid, differential return
09	5/3 double solenoid vented centre
14	5/3 double solenoid pressurised center *
19	5/3 double solenoid closed centre

Voltage	
---------	--

Blank	Operator only (without coil)
-------	------------------------------

M12 connection	
----------------	--

19	24 Vdc
----	--------

DIN connector	
---------------	--

45	12 Vdc
49	24 Vdc
40	12 Vac - 50/60 Hz
42	24 Vac - 50/60 Hz
53	110 Vac - 50Hz / 120 Vac - 60Hz
57	230 Vac - 50/60 Hz

Solenoid enclosure	
--------------------	--

CNOMO 30 x 30 Operator for Low Power Coil	
---	--

L	Operator with coil
N	Operator only without coil

M12 connector	
---------------	--

2	One connector per distributor
6	One built-in connector per coil

Manual override	
-----------------	--

On Pneumatic Valves or Electric Valves without operator	
---	--

60	Without direct spool override
70	With direct spool override

On electric operator *	
------------------------	--

A	Without any
B	Non locking - Flush - Metal
C	Locking - Flush - Plastic





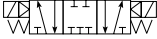
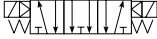
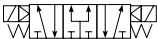
\* Without direct valve spool manual override

Shaded part numbers constituted with shaded voltage code are available from stock.  
 Shaded part numbers constituted by unshaded voltage code are available on request but are subject to a minimum order quantity. Otherwise, select « Blank » as voltage code and order coil separately.

## ISOMAX - ISO 5599-1 - Sizes 1, 2 & 3

### CNOMO operator with 30 x 30 DIN Form A / 24 Vdc / 2,7 W solenoid

With non locking manual override on solenoid valve operator - Without direct valve spool manual override





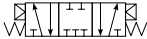

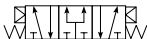
Symbol	Description	Size	Weight (g)	Order code	
		5/2 Single solenoid - Spring return	1 - 43 mm	500	<b>DX1-621-BL49</b>
		2 - 56 mm	750	<b>DX2-621-BL49</b>	
		3 - 71 mm	1250	<b>DX3-621-BL49</b>	
		5/2 Single solenoid - Differential	1 - 43 mm	500	<b>DX1-651-BL49</b>
		2 - 56 mm	750	<b>DX2-651-BL49</b>	
		3 - 71 mm	1250	<b>DX3-651-BL49</b>	
		5/2 Double solenoid	1 - 43 mm	650	<b>DX1-606-BL49</b>
		2 - 56 mm	900	<b>DX2-606-BL49</b>	
		3 - 71 mm	1400	<b>DX3-606-BL49</b>	
	5/3 Closed Center	1 - 43 mm	560	<b>DX1-616-BL49</b>	
	2 - 56 mm	900	<b>DX2-616-BL49</b>		
	3 - 71 mm	1400	<b>DX3-616-BL49</b>		
	5/3 Vented Center	1 - 43 mm	650	<b>DX1-611-BL49</b>	
	2 - 56 mm	900	<b>DX2-611-BL49</b>		
	3 - 71 mm	1400	<b>DX3-611-BL49</b>		
	5/3 Pressurised Center	1 - 43 mm	650	<b>DX1-613-BL49</b>	
	2 - 56 mm	900	<b>DX2-613-BL49</b>		

Solenoid connectors & cable plug to be ordered separately. See solenoid section

## ISOMAX - ISO 5599-1 - Sizes 1, 2 & 3

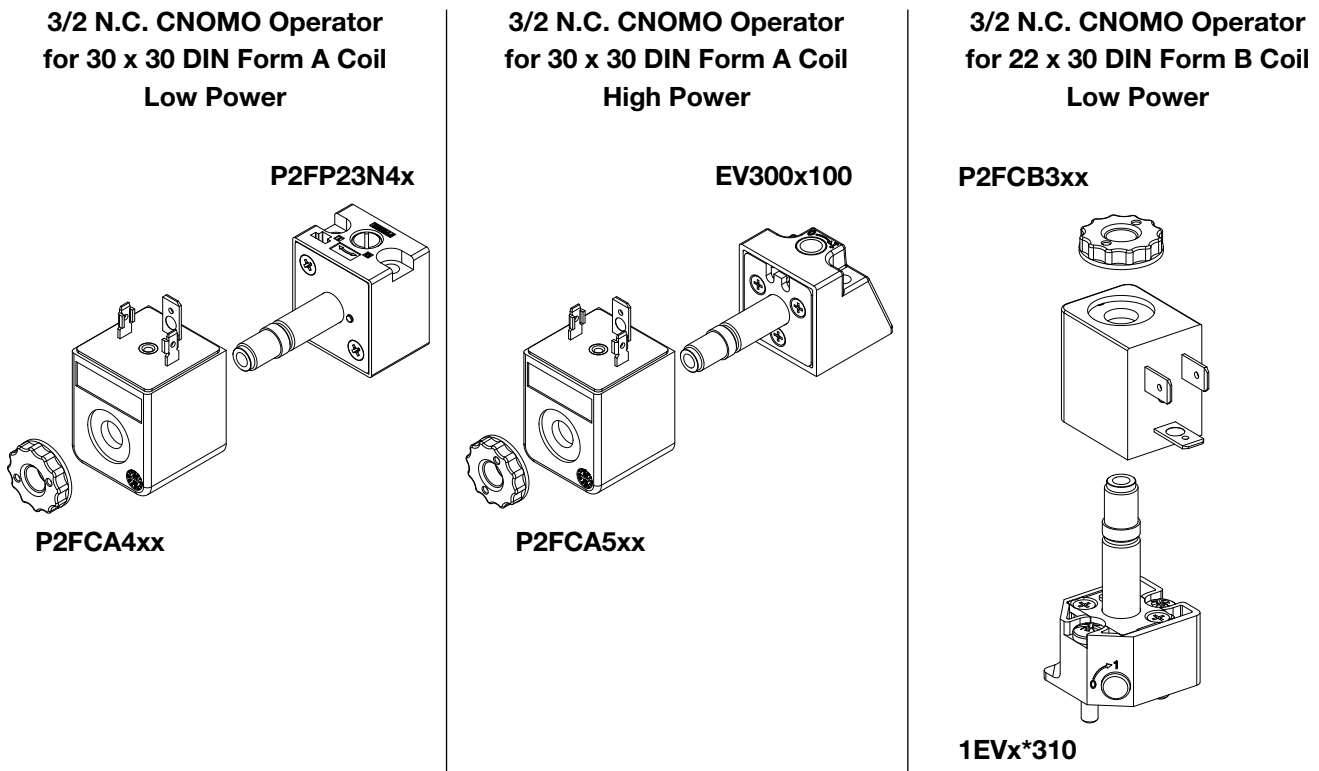
### CNOMO operator without coil

With non locking manual override on solenoid valve operator - Without direct valve spool manual override

Symbol	Description	Size	Weight (g)	Order code	
		5/2 Single solenoid - Spring return	1 - 43 mm	400	<b>DX1-621-BN</b>
		2 - 56 mm	650	<b>DX2-621-BN</b>	
		3 - 71 mm	1150	<b>DX3-621-BN</b>	
		5/2 Single solenoid - Differential	1 - 43 mm	400	<b>DX1-651-BN</b>
		2 - 56 mm	650	<b>DX2-651-BN</b>	
		3 - 71 mm	1150	<b>DX3-651-BN</b>	
		5/2 Double solenoid	1 - 43 mm	550	<b>DX1-606-BN</b>
		2 - 56 mm	800	<b>DX2-606-BN</b>	
		3 - 71 mm	1300	<b>DX3-606-BN</b>	
	5/3 Closed Center	1 - 43 mm	550	<b>DX1-616-BN</b>	
	2 - 56 mm	800	<b>DX2-616-BN</b>		
	3 - 71 mm	1300	<b>DX3-616-BN</b>		
	5/3 Vented Center	1 - 43 mm	550	<b>DX1-611-BN</b>	
	2 - 56 mm	800	<b>DX2-611-BN</b>		
	3 - 71 mm	1300	<b>DX3-611-BN</b>		
	5/3 Pressurised Center	1 - 43 mm	550	<b>DX1-613-BN</b>	
	2 - 56 mm	800	<b>DX2-613-BN</b>		

30 x 30 DIN Form A or 22 x 30 DIN Form B coil & coil connectors to be ordered separately. See solenoid section

### 3/2 N.C. CNOMO Operator for 30 x 30 DIN Form A or 22 x 30 DIN Form B coils






### Technical data - Solenoid operator & Coil combinations


		3/2 N.C. CNOMO Operators		
		30 x 30 DIN Form A Coil		22 x 30 DIN Form B Coil
		Low Power	High Power	Low Power
Working pressure		0 to 10 bar		
Ambient temperature		-10°C to 60°C (1)	-10°C to 60°C (1)	-25°C to 60°C (1)
Orifice		1.3/1.5mm	1.3/1.5mm	1.2/1.3mm
Nominal Flow Qn		0.84 dm <sup>3</sup> /s	0.84 dm <sup>3</sup> /s	0.7 dm <sup>3</sup> /s
Power	AC Voltages	2,5W	4,5W	3 W
	DC Voltages	3VA	5VA	50 Hz : 5 VA / 60 Hz : 4,2 VA
Voltage tolerance		+/- 10%		
Duty cycle		100%		
Insulation class		F		
Electric connection		DIN A		DIN B
Protection IP65		IP65		
Shock		According to IEC 68-2-6 (2G - from 2 to 150 Hz)		
Vibration		According to IEC 68 - 2 - 7 (15G - 11 m/s)		
Working media		All neutral media such as compressed air and inert gases		




### 3/2 N.C. CNOMO Operator - Without Coil

Description	Manual override	W (g)	Order code
 Solenoid operator for 30 x 30 DIN Form A Coil Dedicated to Low Power 2,5W / 3VA Coil	No manual override	65	<b>P2FP23N4A</b>
	Pulse non locking	65	<b>P2FP23N4B</b>
	Locking	65	<b>P2FP23N4C</b>
 Solenoid operator for 30 x 30 DIN Form A Coil Dedicated to High Power 4,5W / 5VA Coil	No manual override	65	<b>EV3000100</b>
	Pulse non locking	65	<b>EV3001100</b>
	Locking	65	<b>EV3003100</b>
 Solenoid operator for 22 x 30 DIN Form B Coil Dedicated to Low Power 2,5W / 4,5VA Coil	No manual override	65	<b>1EV0*310</b>
	Pulse non locking	65	<b>1EV1*310</b>
	Locking	65	<b>1EV3*310</b>



### 30 x 30 DIN Form A and 22 x 30 DIN Form B Coils for CNOMO Operator

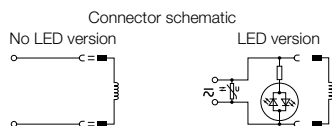
Voltage	W (g)	30 x 30 DIN Form A		22 x 30 DIN Form B		
		Low Power (to be used with P2FP23N4x) Order code	High Power (to be used with EV300x100) Order code	Low Power (to be used with 1EVx*310) Order code		
	12 Vdc	105	<b>P2FCA445</b>	<b>P2FCA545</b>	93	<b>P2FCB345</b>
	24 Vdc	105	<b>P2FCA449</b>	<b>P2FCA549</b>	93	<b>P2FCB349</b>
	48 Vdc	105	<b>P2FCA453</b>	<b>P2FCA551</b>	93	<b>P2FCB351</b>
	12 Vac 50/60 Hz	105	<b>P2FCA440</b>	<b>P2FCA540</b>	93	<b>P2FCB340</b>
	24 Vac 50/60 Hz	105	<b>P2FCA445</b>	<b>P2FCA545</b>	93	<b>P2FCB345</b>
	48 Vac 50/60 Hz	105	<b>P2FCA449</b>	<b>P2FCA549</b>	93	<b>P2FCB349</b>
	110 Vac 50 Hz / 120 Vac 60 Hz	105	<b>P2FCA453</b>	<b>P2FCA553</b>	93	<b>P2FCB353</b>
	230 Vac 50 Hz / 240 Vac 60 Hz	105	<b>P2FCA457</b>	<b>P2FCA557</b>	93	<b>P2FCB357</b>

### Spare Solenoid Nuts

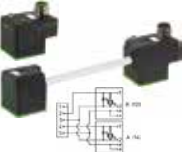
Description	Usage	W (g)	Order code	
	Plastic knurled nut	For valve requiring Captured exhaust	5	<b>P2FNPA</b>
	Diffuser plastic nut	For valve requiring Vented exhaust	5	<b>P2FNDA</b>

### 30 x 30 DIN Form A and 22 x 30 DIN Form B Solenoid Connectors

Description	Characteristic	Visualisation	Cable length	W (g)	Order code
 30 x 30 DIN Form A connector With standard screw	Standard IP65	No LED	No cable	15	<b>3EV290V10</b>
		24 Vdc/Vac LED	No cable	30	<b>3EV290V20-24</b>
			5 meters	355	<b>3EV290V20-24L5</b>
		110 Vac LED	No cable	30	<b>3EV290V20-110</b>
			5 meters	470	<b>3EV290V20-110L5</b>
		230 Vac LED	No cable	30	<b>3EV290V20-230</b>
 22 x 30 DIN Form B connector With standard screw	Standard IP65	No LED	No cable	15	<b>3EV10V10</b>
			24 Vdc/Vac LED	No cable	20
		5 meters		350	<b>3EV10V20-24L5</b>
		110 Vac LED	No cable	25	<b>3EV10V20-110</b>
			5 meters	355	<b>3EV10V20-110L5</b>
		230 Vac LED	No cable	25	<b>3EV10V20-230</b>
			5 meters	360	<b>3EV10V20-230L5</b>



### M12 Adaptor for 30 x 30 DIN Form A Coil

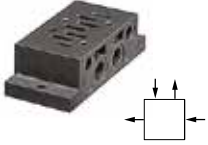
Description	Characteristics	Visualisation	Cable	W (g)	Order code
 M12 Connector for one coil	24 V AC/DC - 4A	LED	No cable	30	<b>P8C-A626C</b>
	M12 Connector for two coils	24 V AC/DC - 4A	LED	No cable	70

**Note:** Solenoid pilot operators are fitted to the ISO valve range.  
 Order the above part numbers for spares.  
 The operators are supplied with mounting screws and interface 'O' rings.  
**Coils and connectors must be ordered separately.**






## ISO 5599-1 Subbase & Manifolds


### VDMA Side Ported Subbases

Description	Size	Port size	Weight (g)	Order code
 <p><b>Subbases VDMA</b> Side port according to VDMA</p>	1 - 43mm	G1/4	160	<b>P2N-VS512SD</b>
	2 - 56mm	G3/8	280	<b>P2N-WS513SD</b>
	3 - 71mm	G1/2	350	<b>P2N-YS514SD</b>


### VDMA Bottom Ported Manifold

Description	Size	Port size	Weight (g)	Order code
 <p><b>VDMA Form C</b> Bottom port according to VDMA</p>	1 - 43mm	G1/4	240	<b>P2N-VM512MB</b>
	2 - 56mm	G3/8	360	<b>P2N-WM513MB</b>
	3 - 71mm	G1/2	700	<b>P2N-YM514MB</b>
<p><b>VDMA Transition plate</b> Size 1 to Size 3 <b>Kit includes:</b> Transition plate only</p> 	1 to 3	G1/4		<b>P2N-VM500AK</b>
<p><b>VDMA Form D - End plate</b> According to VDMA</p> 	1 - 43mm	G3/8	210	<b>P2N-VM513ES</b>
	2 - 56mm	G1/2	360	<b>P2N-WM514ES</b>
	3 - 71mm	G1	680	<b>P2N-YM518ES</b>
<p><b>VDMA Isolation - Main galley</b> According to VDMA</p> <p><b>Kit includes:</b> (1) Isolator plug.</p>	1 - 43mm			<b>P2N-VK0P</b>
	2 - 56mm			<b>P2N-WK0P</b>
	3 - 71mm			<b>P2N-YK0P</b>


### Accessories

Description	Size	Port size	Weight (g)	Order code
 <p><b>Blanking plate</b></p> <p><b>Kit includes:</b> (1) Blanking plate, (1) Gasket and (4) Mounting bolts</p>	1 - 43mm	G1/4	100	<b>P2N-AA5B</b>
	2 - 56mm	G3/8	150	<b>P2N-BA5B</b>
	3 - 71mm	G1/2	200	<b>P2N-CA5B</b>




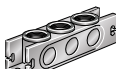

## Side ported subbases

Description	Size	Port size	Weight (g)	Order code BSP	Order code NPT
 <p><b>Single subbase</b>                      1 3 5 2 4 ports &amp; 12 14</p>	1 - 43mm	G1/4	160	<b>PL1-1/4-70</b>	<b>PL1-1/4-80</b>
		G3/8	160	<b>PL1-3/8-70</b>	
	2 - 56mm	G3/8	280	<b>PL2-3/8-70</b>	<b>PL2-3/8-80</b>
		G1/2		<b>P2N-HS514SS</b>	
	3 - 71mm	G1/2		<b>PL3-1/2-70</b>	<b>PL3-1/2-80</b>
		G3/4		<b>P2N-JS516SD</b>	



## Bottom ported subbases

Description	Size	Port size	Weight (g)	Order code BSP	Order code NPT
 <p><b>Single subbase</b>                      1 3 5 2 4 ports &amp; 12 14</p>	1 - 43mm	G1/4	370	<b>PD1-1/4-70</b>	<b>PD1-1/4-80</b>
	2 - 56mm	G3/8	590	<b>PD2-3/8-70</b>	<b>PD2-3/8-80</b>
	3 - 71mm	G1/2	590	<b>PD3-1/2-70</b>	

## Size 1 bottom ported manifold

Description	Size	Port size	Weight (g)	Order code
 <p><b>Manifold</b>                      with bottom ports low profile</p>	1 - 43mm	G1/4	20	<b>P2N-AM512MB</b>
 <p><b>Connecting block</b>                      Top or bottom ported connecting block for above manifold "low profile"</p>	1 - 43mm	G3/8	150	<b>P2N-AM513GT</b>
 <p><b>End</b>                      End piece for above manifold "low profile"</p>	1 - 43mm	no	6	<b>P2N-AM500J</b>
 <p><b>Intermediate supply</b>                      Top or bottom ported intermediate supply for above manifold "low profile"</p>	1 - 43mm	G3/8	140	<b>P2N-AM513BT</b>
 <p><b>Isolation plugs</b>                      isolating seal for above manifold "low profile"</p>	1 - 43mm		070	<b>P2N-AK0P</b>

## Sizes 1 & 2 side ported manifold

Description	Size	Port size	Weight (g)	Order code
 <p><b>Manifold</b>                      Manifold with side port</p>	1 - 43mm	G1/4	240	<b>P2N-EM512MD</b>
	2 - 56mm	G3/8	210	<b>P2N-FM513MD</b>
 <p><b>End</b>                      Side ported connecting kit for above manifold with side ports</p>	1 - 43mm	G3/8	360	<b>P2N-EM513ES</b>
	2 - 56mm	G1/2	290	<b>P2N-FM514ES</b>



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# Tryckknapps-ventiler och signalögon

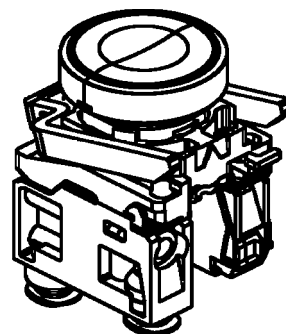
Serie PXB och PXV

Katalog PDE2587TCSE April 2012



ENGINEERING YOUR SUCCESS.

- Panelmonterade ventiler
- Normalt öppna eller normalt stängda 3/2-utföranden
- Pneumatiska ventiler kan kombineras med elektriska brytare
- Modulkonstruktion (upp till 3 ventiler per tryckknapp)
- Stort utbud av trycken och vred



## Tekniska data

### Arbetstryck

PXB-B3••

1-9 bar

PXB-B4••

1-10 bar

### Arbetstemperatur

-15 till +60 °C

### Flöde

(enligt ISO 6358)

PXB-B3••

Q<sub>max</sub> = 60 l/minQ<sub>n</sub> = 30 l/min

PXB-B4••

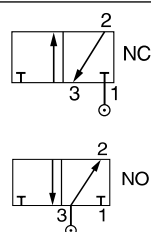
Q<sub>max</sub> = 200 l/minQ<sub>n</sub> = 100 l/min

### Anslutningar

Ø 4 mm rak instickskoppling som standard

Ø 4 mm vridbar vinkelkoppling på begäran

M5 på begäran



Samtliga PXB-B4-ventiler kan anslutas som antingen normalt stängda (NC) eller normalt öppna (NO) 3/2-ventiler efter behov, genom inkoppling av primärluft till port 1 respektive port 3.


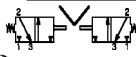
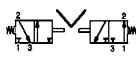
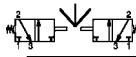
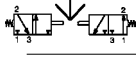

## Återfjädrande tryckknappar – metall, inkl. ventil med Ø 4 mm raka instickskopplingar

Symbol	Färg	Returnering	Omställningskraft vid 6 bar, N	Flöde l/min	Vikt kg	Beställn.nr.
		Fjäder	8,5	60	0,077	<b>PXB-B3111BA2</b>
			6,0	240	0,082	<b>PXB-B4131BA2</b>
		Fjäder	8,5	60	0,077	<b>PXB-B3111BA3</b>
			6,0	240	0,082	<b>PXB-B4131BA3</b>
	Röd	Fjäder	8,5	60	0,077	<b>PXB-B3111BA4</b>
	6,0		240	0,082	<b>PXB-B4131BA4</b>	
	Svart	Fjäder	16,5	60	0,087	<b>PXB-B3251BA2</b>
	14,0		240	0,092	<b>PXB-B4231BA2</b>	



## Svamptrycken Ø 40 mm – metall, inkl. ventil med Ø 4 mm raka instickskopplingar

Symbol	Färg	Returnering	Omställningskraft vid 6 bar, N	Flöde l/min	Vikt kg	Beställn.nr.
		Fjäder	12	60	0,122	<b>PXB-B3111BC2</b>
			6,5	240	0,127	<b>PXB-B4131BC2</b>
		Röd	Drag	48	60	0,125
	42,5	240		0,127	<b>PXB-B4131BT4</b>	
	Röd	Drag	49	60	0,125	<b>PXB-B3121BT4</b>
	43,5		240	0,127	<b>PXB-B4131BT4</b>	





## Vred – metall, svart, inkl. ventil med Ø 4 mm raka instickskopplingar

Symbol	Typ	Returnering	Flöde Nl/min	Vikt kg	Beställn.nr.
	2-läges	Kvarstående	60	0,092	<b>PXB-B3111BD2</b>
			240	0,097	<b>PXB-B4131BD2</b>
	2-läges	Kvarstående	60	0,102	<b>PXB-B3211BD2</b>
			240	0,107	<b>PXB-B4231BD2</b>
	2-läges	Kvarstående	60	0,102	<b>PXB-B3251BD2</b>
			240	0,107	<b>PXB-B4231BD2</b>
	3-läges	Kvarstående	60	0,102	<b>PXB-B3211BD3</b>
			240	0,107	<b>PXB-B4231BD3</b>
	3-läges	Kvarstående	60	0,102	<b>PXB-B3251BD3</b>
			240	0,107	<b>PXB-B4231BD3</b>
	3-läges med långt vred	Fjäder	60	0,103	<b>PXB-B3211BJ5</b>
			240	0,108	<b>PXB-B4231BJ5</b>

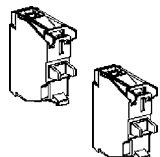
## Ventiler med fäste för metalltrycke – Ø 4 mm raka instickskopplingar

Symbol	Aktivering	Returnering	Omställnings- kraft vid 6 bar, N	Flöde Nl/min	Vikt kg	Beställn.nr.
	Plunge	Fjäder	7	60	0,048	<b>PXB-B3111B</b>
			4,5	240	0,053	<b>PXB-B4131B</b>
	Plunge	Fjäder	8	60	0,048	<b>PXB-B3121B</b>
			4,5	240	0,053	<b>PXB-B4131B</b>

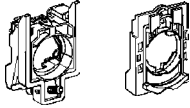
## Ventiler utan fäste – Ø 4 mm instickskopplingar

Symbol	Aktivering/ koppling	Returnering	Omställnings- kraft vid 6 bar, N	Flöde Nl/min	Vikt kg	Beställn.nr.
	Plunge Rak koppling	Fjäder	7	60	0,010	<b>PXB-B3911</b>
			4,5	240	0,015	<b>PXB-B4931</b>
	Plunge Rak koppling	Fjäder	8	60	0,010	<b>PXB-B3921</b>
			4,5	240	0,015	<b>PXB-B4931</b>
	Plunge Vridbar vinkelkoppling	Fjäder	7	60	0,015	<b>PXB-B3912</b>
			4,5	240	0,021	<b>PXB-B4932</b>
	Plunge Vridbar vinkelkoppling	Fjäder	8	60	0,015	<b>PXB-B3922</b>
			4,5	240	0,021	<b>PXB-B4932</b>

## Elektriska kontaktdon

Anslutningar	Typ av Kontakt	Vikt kg	Beställn.nr.
	Normalt öppen (NO)	0,011	<b>ZBE-101</b>
	Normalt stängd (NC)	0,011	<b>ZBE-102</b>




## Monteringsfäste för ventiler och trycken

	Beskrivning	För metalltrycke ZB4		För plasttrycke ZB5	
		Vikt kg	Beställn.nr.	Vikt kg	Beställn.nr.
	<b>Monteringsfäste för ventiler och trycken</b> Kombineras med ett trycke och omställningsventil(er), till en komplett enhet.	0,038	<b>ZB4-BZ009</b>	0,006	<b>ZB5-AZ009</b>


## Trycken

Avsedda för ventiler med fäste, PXB-B3 och PXB-B4

### Återfjädrande tryckknappar

	Beskrivning	Färg	Metalltrycke		Plasttrycke	
			Vikt kg	Beställn.nr.	Vikt kg	Beställn.nr.
	Infälld	Svart	0,029	<b>ZB4-BA2</b>	0,018	<b>ZB5-AA2</b>
		Grön	0,029	<b>ZB4-BA3</b>	0,018	<b>ZB5-AA3</b>
		Röd	0,029	<b>ZB4-BA4</b>	0,018	<b>ZB5-AA4</b>
		Set*	0,029	<b>ZB4-BA9</b>	0,018	<b>ZB5-AA9</b> *
Set om 6 färgade tryckplattor (vit, svart, grön, röd, gul, blå)						
	Utstickande	Svart	0,030	<b>ZB4-BL2</b>	0,019	<b>ZB5-AL2</b>
		Grön	0,030	<b>ZB4-BL3</b>	0,019	<b>ZB5-AL3</b>
		Röd	0,030	<b>ZB4-BL4</b>	0,019	<b>ZB5-AL4</b>
	Infälld med gummitätning	Svart	0,034	<b>ZB4-BP2</b>		




### Tryckknapp, tryck/tryck-funktion

	Beskrivning	Färg	Metalltrycke	
			Vikt kg	Beställn.nr.
	Infälld	Svart	0,029	<b>ZB4-BH02</b>
		Grön	0,029	<b>ZB4-BH03</b>
		Röd	0,029	<b>ZB4-BH04</b>

### Dubbelknapp med fjäderretur

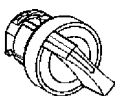
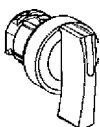
	Beskrivning	Färg-märkning	Metalltrycke	
			Vikt kg	Beställn.nr.
	Infälld	Grön/röd I/O	0,047	<b>ZB4-BA8234</b>

### Svamptryckknappar

	Beskrivning	Funktion	Färg	Metalltrycke		Plasttrycke	
				Vikt kg	Beställn.nr.	Vikt kg	Beställn.nr.
	Ø 40 mm Svamptrycke	Återfjädrande	Svart	0,074	<b>ZB4-BC2</b>		
			Grön	0,074	<b>ZB4-BC3</b>		
			Röd	0,074	<b>ZB4-BC4</b>		
		Tryck/drag	Röd	0,077	<b>ZB4-BT4</b>		
	Ø 60 mm Svamptrycke	Återfjädrande	Svart	0,093	<b>ZB4-BR2</b>		
	Ø 40 mm Svamptrycke	Låsande	Röd	0,070	<b>ZB4-BS54</b>	0,044	<b>ZB5-AS54</b>
		Låsande Frigöres genom vridning	Röd	0,070	<b>ZB4-BS14</b>		
		Låsande Frigöres med nyckel (nr 455)	Röd	0,070	<b>ZB4-BS14</b>		



## Vred

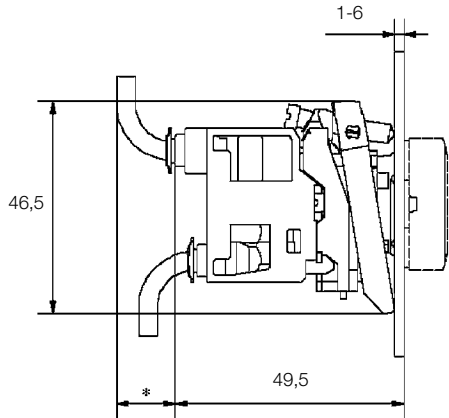
	Beskrivning	Funktion	Metall		Plast		
			Vikt kg	Beställn.nr	Vikt kg	Beställn.nr.	
	Standard, svart vred	2 lägen	Stannar i läge	0,044	<b>ZB4-BD2</b>	0,024	<b>ZB5-AD2</b>
		3 lägen	Stannar i läge	0,044	<b>ZB4-BD3</b>	0,024	<b>ZB5-AD3</b>
		3 lägen	Återfjädrande till mittläge	0,044	<b>ZB4-BD5</b>	0,024	<b>ZB5-AD5</b>
	Långt svart vred	2 lägen	Stannar i läge	0,045	<b>ZB4-BJ2</b>		
		3 lägen	Stannar i läge	0,045	<b>ZB4-BJ3</b>		
			Återfjädrande till mittläge	0,045	<b>ZB4-BJ5</b>		
			1 fjäderretur från vänster till mittläge	0,045	<b>ZB4-BJ7</b>		

	Beskrivning	Funktion	Urtagning av nyckel	Vikt kg	Beställn.nr.
	<b>Nyckelaktiverad</b> (Nyckel nr 455)	2 fasta lägen	Vänster	0,069	<b>ZB4-BG2</b>
			Vänster och höger	0,069	<b>ZB4-BG4</b>

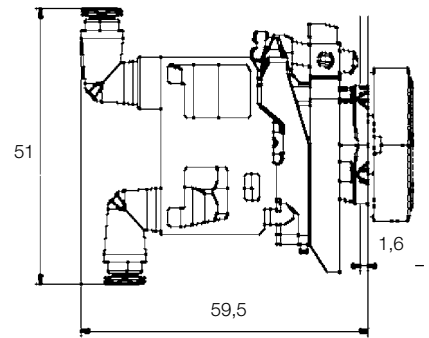
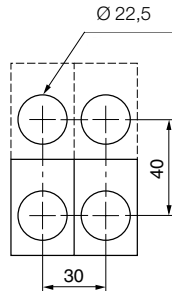
## Verktyg

	Beskrivning	Vikt kg	Beställn.nr.
	För åtdragning av 0,160 ZB5 plasttrycken		<b>ZB5-AZ905</b>

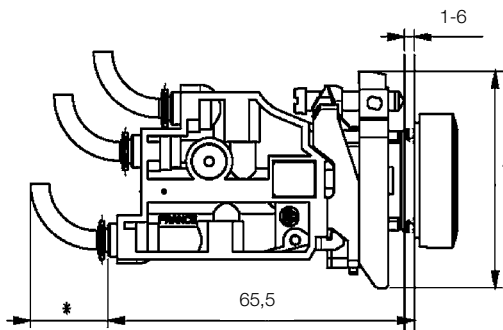
**PXB-B3**



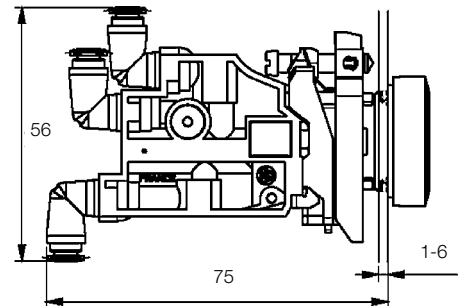
Bredd 30 mm  
 \* med rör 2 x 4 mm = 10  
 med rör 2,7 x 4 mm = 15



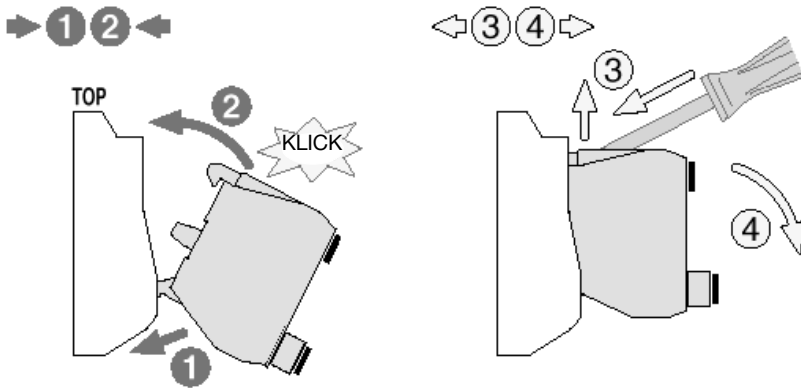
**PXB-B4**



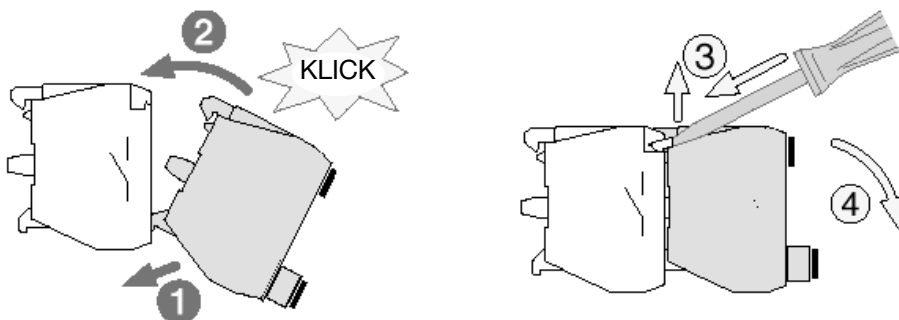
Bredd 30 mm  
 \* med rör 2 x 4 mm = 10  
 med rör 2,7 x 4 mm = 15



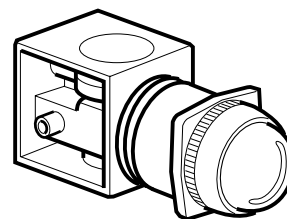
**Montering av PXB-B3- och PXB-B4-ventiler på monteringsfäste**



**Montering av PXB-B3- och PXB-B4-ventiler på baksidan på elektrisk kontakt**



- Snabb omställning
- Enkel, driftsäker konstruktion
- Mycket hög kontrast
- Syns från snäv vinkel
- En enda röranslutning
- Underlättar vid felsökning



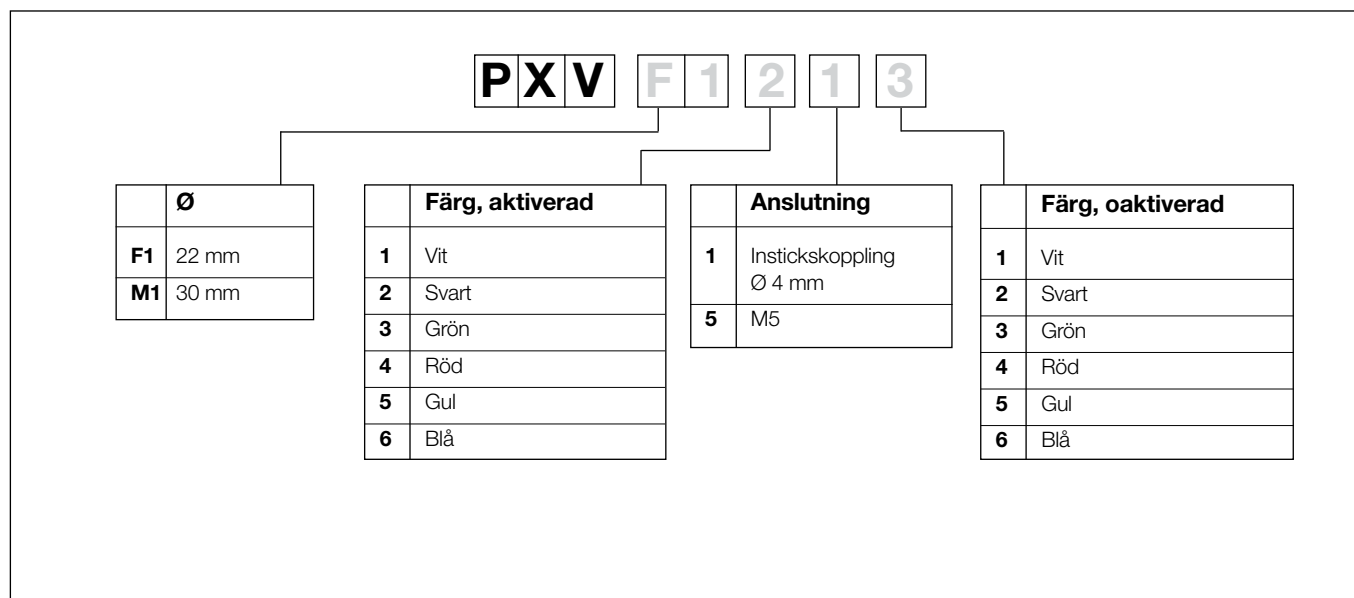
## Tekniska data

Arbetstryck 1-8 bar  
Arbetstemperatur -15 till +60 °C

## Övrig information

Anslutningar Rak instickskoppling Ø 4 mm som standard


## Beställningsnyckel



**Signalögon Ø 22 mm**

Svart plastinfattning


Färg i aktiverat läge

Symbol	Färg*	Vikt kg	Beställn.nr.
	Grön	0,080	<b>PXV-F131</b>
	Röd	0,080	<b>PXV-F141</b>
	Gul	0,080	<b>PXV-F151</b>
	Blå	0,080	<b>PXV-F161</b>
	Vit	0,080	<b>PXV-F111</b>

**Signalögon Ø 22 mm**

Svart plastinfattning

Färg i oaktiverat läge

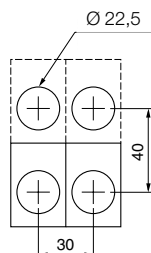
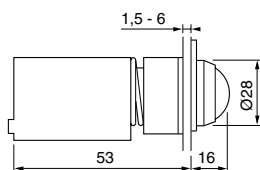
Symbol	Färg*	Vikt kg	Beställn.nr.
	Grön	0,080	<b>PXV-F1213</b>
	Röd	0,080	<b>PXV-F1214</b>
	Gul	0,080	<b>PXV-F1215</b>
	Blå	0,080	<b>PXV-F1216</b>
	Vit	0,080	<b>PXV-F1211</b>

\* Pneumatiskt styrda indikatorlampor, s k signalögon, är svarta i det ena läget och färgade i det andra. Det färgade läget indikerar antingen tryck (aktiverad) eller frånvaro av tryck (oaktiverad). Indikatorer med två färger på förfrågan.

**Signalögon Ø 22 mm**

PXV-F1••

Minimivstånd mellan två signalögon





aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# Parker Global Air Preparation System

Catalogue PDE2676TCUK September 2015



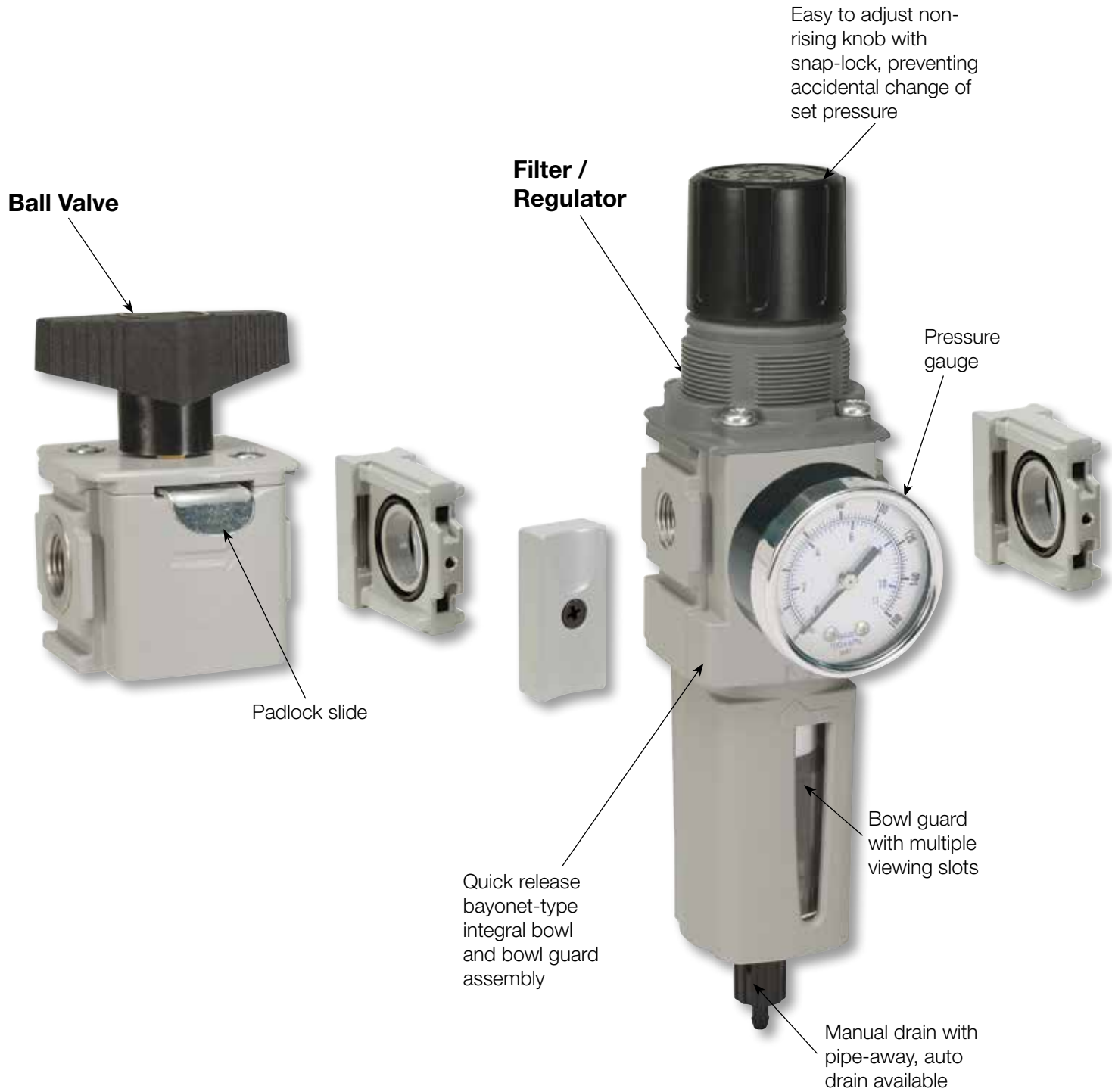
**log** LOGICSYSTEM AB  
Industriautomation

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# A completely modular air preparation system





# Air Preparation

## P31 Mini Series

40mm body width  
 1/4" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	12	(25)
Coalescer	3.6	(7.5)
Regulator	32	(68)
Filter/Regulator	35	(74)
Lubricator	19	(40)

Features:

- Space saving integral gauge
- Manifold style regulators available
- OSHA compliant shut-off valves
- Soft-Start & Quick Dump valves
- Electronic Proportional Regulator



## P32 Compact Series

60mm body width  
 1/4", 3/8", & 1/2" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	39	(82)
Coalescer	17	(36)
Regulator	78	(165)
Filter/Regulator	64	(136)
Lubricator	42	(90)

Features:

- Manifold style regulators available
- OSHA Compliant shut-off valves
- Soft-Start & Quick Dump valves
- Electronic Proportional Regulator



## P33 Standard Series

73mm body width  
 1/2" & 3/4" Ported

Flows up to:	dm <sup>3</sup> /s	(SCFM)
Filter	40	(85)
Coalescer	34	(72)
Regulator	111	(233)
Filter/Regulator	108	(230)
Lubricator	71	(150)

Features:

- OSHA Compliant shut-off valves
- Soft-Start & Quick Dump valves (Utilizes P32 size only)
- Electronic proportional regulator (Utilizes P32 size only)






# Application Guide

**FRL to Valve:** The chart below contains recommendations for the correct selection of Global Air Preparation units to suit the number and size of valves in a typical application.

	P31 Mini Series				P32 Compact Series						P33 Standard Series					
	Number of valves that would actuate at once															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Moduflex 1</b>	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>Isys Micro</b>	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>HB / Viking Xtreme</b>	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>Moduflex 2</b>	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>HA / Global ISO</b>	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
<b>See Larger Parker FRL Offering</b>																

**Actuator to FRL:** The chart below contains recommendations for the correct selection of Global Air Preparation units suitable for each cylinder size. If you have a tube length over 2 m, choose one tube size larger than the chart. The table is based on a Maximum cylinder speed of 0.5m/s

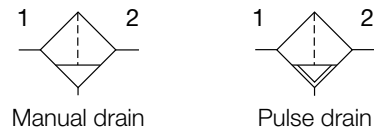
Cyl Ø mm Cyl Ø inches		Cylinder bore size														
		5 (5/16)	10 (7/16)	16 (9/16)	20 (3/4)	25 (1)	28 (1-1/8)	32 (1-1/4)	40 (1-1/2)	45 (1-3/4)	50 (2)	63 (2-1/2)	75 (3)	80 (3-1/4)	100 (4)	
Tube Ø mm Tube Ø inches		Tube diameter external														
		4 (5/32)	4 (5/32)	4 (5/32)	6 (1/4)	6 (1/4)	6 (1/4)	6 (1/4)	8 (5/16)	8 (5/16)	8 (5/16)	10 (3/8)	10 (3/8)	12 (1/2)	12 (1/2)	
<b>Number of cylinders actuating at once</b>	1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	3	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	5	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	6	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	7	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	8	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	9	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	10	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
		<b>P31 Mini Series</b>				<b>P32 Compact Series</b>				<b>P33 Standard Series</b>				<b>See Larger Parker FRL Offering</b>		
																

**Note:** Data listed above is simply a guideline for a typical application only. Proper sizing and correct flow requirements must be taken into account.

**Mini Particulate Filter - P31**



**Symbols**



- Integral 1/4" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- One hand operation for easy element cartridge removal
- Positive bayonet latch to ensure correct & safe fitting

**Options:**

**P31FB**   **2** **E**     **N**

<b>Basic series</b> Global modular mini particulate filter	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/4 2	<b>Element</b> 5µ Element E	<b>Drain type</b> M Manual drain B Pulse drain	<b>Mounting</b> N No bracket
			<b>Bowl type</b> G Poly bowl with bowl guard M Metal bowl without sight gauge		

**Bold items are most common.**

Port size	Description	Flow† dm³/s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	Poly bowl - manual drain	12 (25)	10 (150)	124.8 (4.91)	40 (1.58)	40 (1.58)	<b>P31FB12EGMN</b>
1/4"	Poly bowl - pulse drain	12 (25)	10 (150)	119.6 (4.71)	40 (1.58)	40 (1.58)	<b>P31FB12EGBN</b>
1/4"	Metal bowl - manual drain	12 (25)	17 (250)	124.8 (4.91)	40 (1.58)	40 (1.58)	<b>P31FB12EMMN</b>
1/4"	Metal bowl - pulse drain	12 (25)	17 (250)	119.6 (4.71)	40 (1.58)	40 (1.58)	<b>P31FB12EMBN</b>

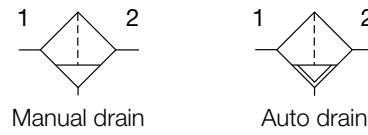
† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 (4.9 psig) pressure drop.



**Compact Particulate Filter - P32**



**Symbols**



- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting

**Options:**

**P32FB** [ ] [ ] **E** [ ] [ ] **N**

<b>Basic series</b> Global modular compact particulate filter <b>P32FB</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9	<b>Port size</b> 1/4 <b>2</b> 3/8 3 1/2 4	<b>Element</b> 5µ Element <b>E</b>	<b>Drain type</b> M Manual drain A Auto drain	<b>Mounting</b> N No bracket	<b>Bowl type</b> G Poly bowl with bowl guard S Metal bowl with sight gauge
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**Bold items are most common.**

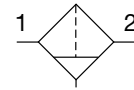
Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	Poly bowl - manual drain	24 (50)	10 (150)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB12EGMN</b>
1/4"	Poly bowl - auto drain	24 (50)	10 (150)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB12EGAN</b>
1/4"	Metal bowl - manual drain	24 (50)	17 (250)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB12ESMN</b>
1/4"	Metal bowl - auto drain	24 (50)	17 (250)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB12ESAN</b>
3/8"	Poly bowl - manual drain	37 (78)	10 (150)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB13EGMN</b>
3/8"	Poly bowl - auto drain	37 (78)	10 (150)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB13EGAN</b>
3/8"	Metal bowl - manual drain	37 (78)	17 (250)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB13ESMN</b>
3/8"	Metal bowl - auto drain	37 (78)	17 (250)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB13ESAN</b>
1/2"	Poly bowl - manual drain	39 (82)	10 (150)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB14EGMN</b>
1/2"	Poly bowl - auto drain	39 (82)	10 (150)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB14EGAN</b>
1/2"	Metal bowl - manual drain	39 (82)	17 (250)	190.3 (7.49)	60 (2.36)	60 (2.36)	<b>P32FB14ESMN</b>
1/2"	Metal bowl - auto drain	39 (82)	17 (250)	184.3 (7.26)	60 (2.36)	60 (2.36)	<b>P32FB14ESAN</b>

<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.  
<sup>‡</sup> Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 (4.9 psig) pressure drop.

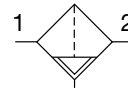
Standard Particulate Filter - P33



Symbols



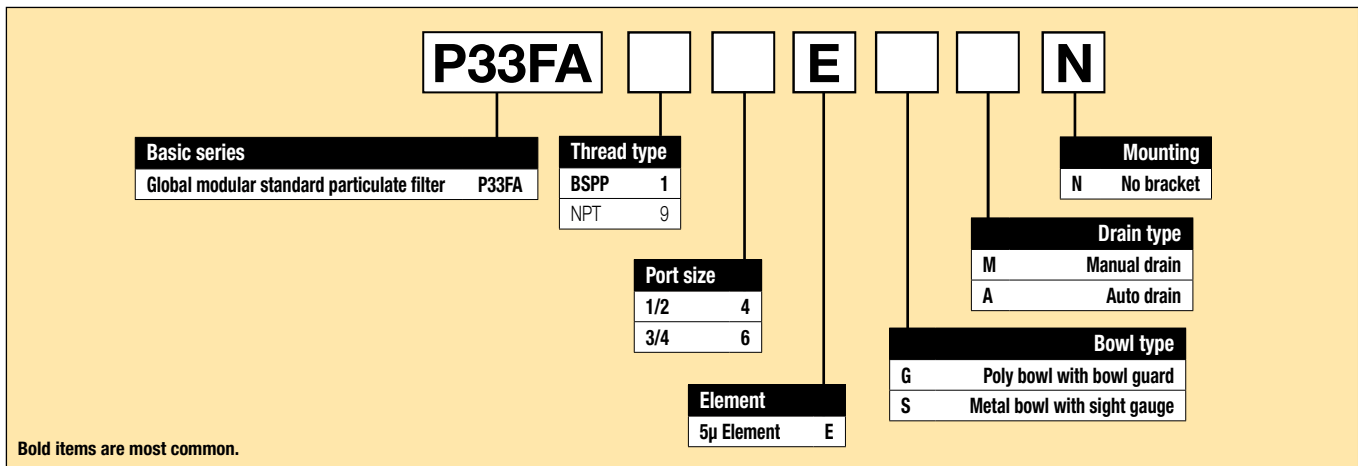
Manual drain



Auto drain

- Integral 1/2" or 3/4" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting

Options:



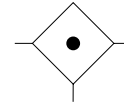
Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/2"	Poly bowl - manual drain	40 (85)	10 (150)	213 (8.39)	73 (2.87)	73 (2.87)	<b>P33FA14EGMN</b>
1/2"	Poly bowl - auto drain	40 (85)	10 (150)	207 (8.15)	73 (2.87)	73 (2.87)	<b>P33FA14EGAN</b>
1/2"	Metal bowl - manual drain	40 (85)	17 (250)	213 (8.39)	73 (2.87)	73 (2.87)	<b>P33FA14ESMN</b>
1/2"	Metal bowl - auto drain	40 (85)	17 (250)	207 (8.15)	73 (2.87)	73 (2.87)	<b>P33FA14ESAN</b>
3/4"	Poly bowl - manual drain	48 (102)	10 (150)	213 (8.39)	73 (2.87)	73 (2.87)	<b>P33FA16EGMN</b>
3/4"	Poly bowl - auto drain	48 (102)	10 (150)	207 (8.15)	73 (2.87)	73 (2.87)	<b>P33FA16EGAN</b>
3/4"	Metal bowl - manual drain	48 (102)	17 (250)	213 (8.39)	73 (2.87)	73 (2.87)	<b>P33FA16ESMN</b>
3/4"	Metal bowl - auto drain	48 (102)	17 (250)	207 (8.15)	73 (2.87)	73 (2.87)	<b>P33FA16ESAN</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.

‡ Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 (4.9 psig) pressure drop.

**Mini Coalescing and Adsorber Filters - P31**

**Symbol**



- Integral 1/4" ports (NPT & BSPP)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- Differential Pressure Indicator (DPI) standard on Coalescing Filters
- Positive bayonet latch to ensure correct and safe fitting
- Adsorbing activated carbon element removes oil vapors and most hydrocarbons

**Note:** To optimize the life of coalescing element, it is advisable to install a P31F pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of an Adsorber it is advisable to install a P31 Coalescing Filter upstream of the Adsorber. Adsorber element should be replaced approximately every 1000 hours of service.

**Options:**

**P31FB** [ ] **2** [ ] [ ] [ ] **N**

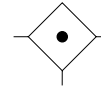
<b>Basic series</b> Global modular mini coalescing filter	<b>P31FB</b>	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/4 2	<b>Element</b> 0.01µ Element C 0.01µ Element with DPI D 1µ Element 9 1µ Element with DPI Q Adsorber A	<b>Drain type</b> B Pulse drain M Manual drain	<b>Bowl type</b> G Poly bowl with bowl guard M Metal bowl without sight gauge	<b>Mounting</b> N No bracket
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**Bold items are most common.**

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	Poly bowl - 0.01 micron - manual drain	3.6 (7.5)	10 (150)	136.9 (5.39)	40 (1.58)	40 (1.58)	<b>P31FB12DGMN</b>
1/4"	Poly bowl - 0.01 micron - pulse drain	3.6 (7.5)	10 (150)	131.7 (5.19)	40 (1.58)	40 (1.58)	<b>P31FB12DGBN</b>
1/4"	Metal bowl - 0.01 micron - manual drain	3.6 (7.5)	10 (150)	136.9 (5.39)	40 (1.58)	40 (1.58)	<b>P31FB12DMMN</b>
1/4"	Metal bowl - 0.01 micron - pulse drain	3.6 (7.5)	10 (150)	131.7 (5.19)	40 (1.58)	40 (1.58)	<b>P31FB12DMBN</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 6.3 bar (91.3 psig) inlet pressure and 0.2 (3 psig) pressure drop.

**Compact Coalescing and Adsorber Filter - P32 Symbol**



- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- Differential Pressure Indicator (DPI) standard on Coalescing Filters
- Positive bayonet latch to ensure correct & safe fitting
- Adsorbing activated carbon element removes oil vapors and most hydrocarbons

**Note:** To optimize the life of coalescing element, it is advisable to install a P32F pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of an Adsorber it is advisable to install a P32 Coalescing Filter upstream of the Adsorber. Adsorber element should be replaced approximately every 1000 hours of service.

**Options:**

**P32FB**

<b>Basic series</b> Global modular compact coalescing filter <b>P32FB</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9	<b>Port size</b> 1/4 <b>2</b> 3/8 <b>3</b> 1/2 <b>4</b>	<b>Element</b> <b>0.01µ Element C</b> <b>0.01µ Element with DPI D</b> 1µ Element 9 1µ Element with DPI Q <b>Adsorber A</b>	<b>Drain type</b> M <b>Manual drain</b> A <b>Auto drain</b>	<b>Bowl type</b> G <b>Poly bowl with bowl guard</b> S <b>Metal bowl with sight gauge</b>	<b>Mounting</b> N <b>No bracket</b>
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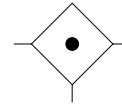
**Bold items are most common.**

Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	Poly bowl - 0.01 micron, manual drain	17 (36)	10 (150)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB12DGMM</b>
1/4"	Poly bowl - 0.01 micron, auto drain	17 (36)	10 (150)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB12DGAN</b>
1/4"	Metal bowl - 0.01 micron, manual drain	17 (36)	17 (250)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB12DSMN</b>
1/4"	Metal bowl - 0.01 micron, auto drain	17 (36)	17 (250)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB12DSAN</b>
3/8"	Poly bowl - 0.01 micron, manual drain	17 (36)	10 (150)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB13DGMM</b>
3/8"	Poly bowl - 0.01 micron, auto drain	17 (36)	10 (150)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB13DGAN</b>
3/8"	Metal bowl - 0.01 micron, manual drain	17 (36)	17 (250)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB13DSMN</b>
3/8"	Metal bowl - 0.01 micron, auto drain	17 (36)	17 (250)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB13DSAN</b>
1/2"	Poly bowl - 0.01 micron, manual drain	17 (36)	10 (150)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB14DGMM</b>
1/2"	Poly bowl - 0.01 micron, auto drain	17 (36)	10 (150)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB14DGAN</b>
1/2"	Metal bowl - 0.01 micron, manual drain	17 (36)	17 (250)	212.3 (8.36)	60 (2.36)	60 (2.36)	<b>P32FB14DSMN</b>
1/2"	Metal bowl - 0.01 micron, auto drain	17 (36)	17 (250)	206.3 (8.12)	60 (2.36)	60 (2.36)	<b>P32FB14DSAN</b>

<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.

<sup>‡</sup> Flow with 6.3 bar (91.3 psig) inlet pressure and 0.2 (3 psig) pressure drop.

**Standard Coalescing and Adsorber Filter - P33 Symbol**



- Integral 1/2" or 3/4" ports (NPT & BSPP)
- Removes liquid aerosols and sub micron particles
- Oil free air for critical applications, such as air gauging, pneumatic instrumentation and control
- Differential Pressure Indicator (DPI) standard on Coalescing Filters
- Positive bayonet latch to ensure correct & safe fitting
- Adsorbing activated carbon element removes oil vapors and most hydrocarbons

**Note:** To optimize the life of coalescing element, it is advisable to install a P33F pre-filter with a 5 micron element upstream of the coalescing filter.

To optimize the life of an Adsorber it is advisable to install a P33 Coalescing Filter upstream of the Adsorber. Adsorber element should be replaced approximately every 1000 hours of service.

**Options:**

**P33FA**

<b>Basic series</b> Global modular standard coalescing filter	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/2 4 3/4 6	<b>Element</b> 0.01µ Element <b>C</b> 0.01µ Element with DPI <b>D</b> 1µ Element 9 1µ Element with DPI Q Adsorber <b>A</b>	<b>Mounting</b> N No bracket	<b>Drain type</b> M Manual drain A Auto drain	<b>Bowl type</b> G Poly bowl with bowl guard S Metal bowl with sight gauge
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**Bold items are most common.**

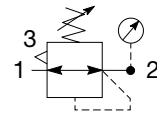
Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/2"	Poly bowl - 0.01 micron, manual drain	32 (68)	10 (150)	235 (9.25)	73 (2.87)	73 (2.87)	<b>P33FA14DGMN</b>
1/2"	Poly bowl - 0.01 micron, auto drain	32 (68)	10 (150)	229 (9.02)	73 (2.87)	73 (2.87)	<b>P33FA14DGAN</b>
1/2"	Metal bowl - 0.01 micron, manual drain	32 (68)	17 (250)	235 (9.25)	73 (2.87)	73 (2.87)	<b>P33FA14DSMN</b>
1/2"	Metal bowl - 0.01 micron, auto drain	32 (68)	17 (250)	229 (9.02)	73 (2.87)	73 (2.87)	<b>P33FA14DSAN</b>
3/4"	Poly bowl - 0.01 micron, manual drain	32 (68)	10 (150)	235 (9.25)	73 (2.87)	73 (2.87)	<b>P33FA16DGMN</b>
3/4"	Poly bowl - 0.01 micron, auto drain	32 (68)	10 (150)	229 (9.02)	73 (2.87)	73 (2.87)	<b>P33FA16DGAN</b>
3/4"	Metal bowl - 0.01 micron, manual drain	32 (68)	17 (250)	235 (9.25)	73 (2.87)	73 (2.87)	<b>P33FA16DSMN</b>
3/4"	Metal bowl - 0.01 micron, auto drain	32 (68)	17 (250)	229 (9.02)	73 (2.87)	73 (2.87)	<b>P33FA16DSAN</b>

<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.  
<sup>‡</sup> Flow with 6.3 bar (91.3 psig) inlet pressure and 0.2 (3 psig) pressure drop.

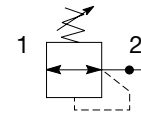
**Mini Regulator - P31**



**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/4" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar (0-60 psig), 0-8 bar (0-125 psig), 0-16 bar (0-232 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

<b>P31RB</b>			<b>2</b>		<b>N</b>		<b>P</b>								
<b>Basic series</b>		<b>Thread type</b>		<b>Port size</b>		<b>Relief</b>									
Global modular mini regulator <b>P31RB</b>		BSPP 1 NPT 9		1/4 <b>2</b>		Relieving <b>B</b> Non-relieving N Reverse flow / Relieving R									
						<b>Mounting</b>									
						P Plastic panel mount nut									
						<b>Adjustment range</b>									
						<b>With square gauge</b>									
						<table border="1"> <tr> <th>psig</th> <th>bar</th> </tr> <tr> <td><b>1 = 30*</b></td> <td><b>V = 2*</b></td> </tr> <tr> <td><b>3 = 60</b></td> <td><b>S = 4</b></td> </tr> <tr> <td><b>5 = 125</b></td> <td><b>T = 8</b></td> </tr> </table>		psig	bar	<b>1 = 30*</b>	<b>V = 2*</b>	<b>3 = 60</b>	<b>S = 4</b>	<b>5 = 125</b>	<b>T = 8</b>
psig	bar														
<b>1 = 30*</b>	<b>V = 2*</b>														
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						<b>With round gauge</b>									
						<table border="1"> <tr> <td>Z</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td>M</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td>G</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td>J</td> <td>16 bar; 232 psig; 1.6 MPa</td> </tr> </table>		Z	2 bar; 30 psig; 0.2 MPa	M	4 bar; 60 psig; 0.4 MPa	G	8 bar; 125 psig; 0.8 MPa	J	16 bar; 232 psig; 1.6 MPa
Z	2 bar; 30 psig; 0.2 MPa														
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						<b>Without gauge</b>									
						<table border="1"> <tr> <td><b>Y</b></td> <td><b>2 bar; 30 psig; 0.2 MPa</b></td> </tr> <tr> <td><b>L</b></td> <td><b>4 bar; 60 psig; 0.4 MPa</b></td> </tr> <tr> <td><b>N</b></td> <td><b>8 bar; 125 psig; 0.8 MPa</b></td> </tr> <tr> <td><b>H</b></td> <td><b>16 bar; 232 psig; 1.6 MPa</b></td> </tr> </table>		<b>Y</b>	<b>2 bar; 30 psig; 0.2 MPa</b>	<b>L</b>	<b>4 bar; 60 psig; 0.4 MPa</b>	<b>N</b>	<b>8 bar; 125 psig; 0.8 MPa</b>	<b>H</b>	<b>16 bar; 232 psig; 1.6 MPa</b>
<b>Y</b>	<b>2 bar; 30 psig; 0.2 MPa</b>														
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<b>N</b>	<b>8 bar; 125 psig; 0.8 MPa</b>														
<b>H</b>	<b>16 bar; 232 psig; 1.6 MPa</b>														

\* Unit comes with 0-4 bar or 0-60 psig gauge respectively.  
 Bar gauges fitted to BSPP  
 PSI gauges fitted to NPT

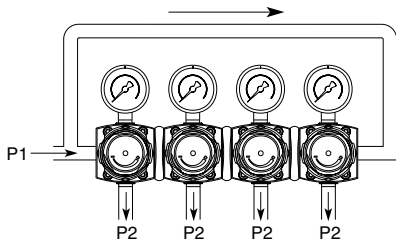
**Bold items are most common.**

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	8 bar (125 psig) relieving	32 (68)	20 (300)	104.1 (4.1)	40 (1.58)	40 (1.58)	<b>P31RB12BNNP</b>
1/4"	8 bar (125 psig) + gauge	32 (68)	20 (300)	104.1 (4.1)	40 (1.58)	61.3 (2.41)	<b>P31RB12BNTP</b>

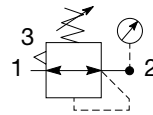
† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.



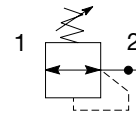
**Mini Common - P1 Regulator - P31**



**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Manifold style regulator with line pressure on both sides
- Pressure output is at front or rear
- Inlet port 1/4" (NPT & BSPP)
- Working port 1/8"
- Robust construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-16 bar (0-232 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

<b>P31HB</b>		<b>2</b>	<b>N</b>	<b>P</b>
<b>Basic series</b> Global modular mini common regulator <b>P31HB</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9	<b>Port size †</b> 1/4 <b>2</b> † Working port 1/8".	<b>Relief</b> Relieving <b>B</b> Non-relieving N Reverse flow / Relieving R	<b>Mounting</b> <b>P</b> Plastic panel mount nut
		<b>Adjustment range</b>		
		<b>With square gauge</b>	<b>Without gauge</b>	
		psig	bar	Y <b>2 bar; 30 psig; 0.2 MPa</b>
		1 = 30*	V = 2*	L <b>4 bar; 60 psig; 0.4 MPa</b>
		3 = 60	S = 4	N <b>8 bar; 125 psig; 0.8 MPa</b>
		5 = 125	T = 8	H <b>16 bar; 232 psig; 1.6 MPa</b>

\* Unit comes with 0-4 bar or 0-60 psig gauge respectively.  
 Bar gauges fitted to BSPP  
 PSI gauges fitted to NPT

**Bold items are most common.**

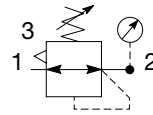
Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	8 bar (125 psig) relieving	20 (42)	20 (300)	104.1 (4.1)	40 (1.58)	40 (1.58)	<b>P31HB12BNNP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

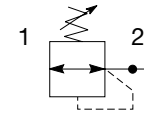
**Compact Regulator – P32**



**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

<b>P32RB</b>				<b>N</b>		<b>P</b>
<b>Basic series</b> Global modular compact regulator <b>P32RB</b>	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/4 2 3/8 3 1/2 4	<b>Relief</b> Relieving B Non-relieving N	<b>Mounting</b> P Plastic panel mount nut		
				<b>Adjustment range</b>		
				<b>With square gauge</b>		<b>With round gauge</b>
				psig	bar	Z 2 bar; 30 psig; 0.2 MPa
				1 = 30*	V = 2*	M 4 bar; 60 psig; 0.4 MPa
				3 = 60	S = 4	G 8 bar; 125 psig; 0.8 MPa
				5 = 125	T = 8	J 17 bar; 250 psig; 1.7 MPa
				<b>Without gauge</b>		
				Y 2 bar; 30 psig; 0.2 MPa		
				L 4 bar; 60 psig; 0.4 MPa		
				N 8 bar; 125 psig; 0.8 MPa		
				H 17 bar; 250 psig; 1.7 MPa		

**Bold items are most common.**

Note: Regulators will reverse flow as standard.

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	8 bar (125 psig) relieving	70 (148)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB12BNNP</b>
1/4"	8 bar (125 psig) relieving + gauge	70 (148)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB12BNGP</b>
3/8"	8 bar (125 psig) relieving	78 (165)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB13BNNP</b>
3/8"	8 bar (125 psig) relieving + gauge	78 (165)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB13BNGP</b>
1/2"	8 bar (125 psig) relieving	78 (165)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB14BNNP</b>
1/2"	8 bar (125 psig) relieving + gauge	78 (165)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB14BNGP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

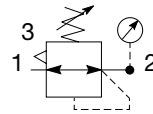
**CAUTION:**

**REGULATOR PRESSURE ADJUSTMENT** – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

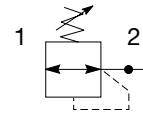
<b>WARNING</b>
<b>Product rupture can cause serious injury.                  Do not connect regulator to bottled gas.                  Do not exceed Maximum primary pressure rating.</b>

**Compact Semi-Precision Regulator – P32**

**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

**P32RB** [ ] [ ] [ ] **N** [ ] **P**

<b>Basic series</b> Global modular compact regulator <b>P32RB</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9	<b>Port size</b> 1/4 <b>2</b> 3/8 <b>3</b> 1/2 <b>4</b>	<b>Relief</b> Relieving <b>P</b> Non-relieving E	<b>Mounting</b> <b>P</b> Plastic panel mount nut	<b>Adjustment range</b> <b>With round gauge</b> Z <b>2 bar; 30 psig; 0.2 MPa</b> M <b>4 bar; 60 psig; 0.4 MPa</b> G <b>8 bar; 125 psig; 0.8 MPa</b> J <b>17 bar; 250 psig; 1.7 MPa</b> <b>Without gauge</b> Y <b>2 bar; 30 psig; 0.2 MPa</b> L <b>4 bar; 60 psig; 0.4 MPa</b> N <b>8 bar; 125 psig; 0.8 MPa</b> H <b>17 bar; 250 psig; 1.7 MPa</b>
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**Bold items are most common.**

Note: Regulators will reverse flow as standard.

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	8 bar (125 psig) relieving	25 (53)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB12PNNP</b>
1/4"	8 bar (125 psig) relieving + gauge	25 (53)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB12PNGP</b>
3/8"	8 bar (125 psig) relieving	25 (53)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB13PNNP</b>
3/8"	8 bar (125 psig) relieving + gauge	25 (53)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB13PNGP</b>
1/2"	8 bar (125 psig) relieving	25 (53)	20 (300)	136 (5.4)	60 (2.36)	60 (2.36)	<b>P32RB14PNNP</b>
1/2"	8 bar (125 psig) relieving + gauge	25 (53)	20 (300)	136 (5.4)	60 (2.36)	93 (3.66)	<b>P32RB14PNGP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

**CAUTION:**

**REGULATOR PRESSURE ADJUSTMENT** – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

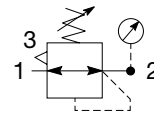
**⚠ WARNING**

**Product rupture can cause serious injury.  
 Do not connect regulator to bottled gas.  
 Do not exceed Maximum primary pressure rating.**

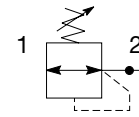
**Standard Regulator - P33**



**Symbols**



Self relieving regulator with gauge



Non relieving regulator

- Integral 1/2" or 3/4" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation
- Relieving & Non-relieving types
- Non-rising knob

**Options:**

**P33RA** [ ] [ ] [ ] **N** [ ] **P**

<b>Basic series</b>	<b>Thread type</b>	<b>Mounting</b>
Global modular standard regulator <b>P33RA</b>	BSPP <b>1</b> NPT 9	P Plastic panel mount nut

<b>Port size</b>	<b>Relief</b>
1/2 <b>4</b> 3/4 <b>6</b>	Relieving <b>B</b> Non-relieving N Reverse flow-relieving R

<b>Adjustment range</b>
<b>With round gauge</b>
Z 2 bar; 30 psig; 0.2 MPa
M 4 bar; 60 psig; 0.4 MPa
G 8 bar; 125 psig; 0.8 MPa
J 17 bar; 250 psig; 1.7 MPa
<b>Without gauge</b>
Y 2 bar; 30 psig; 0.2 MPa
L 4 bar; 60 psig; 0.4 MPa
<b>N 8 bar; 125 psig; 0.8 MPa</b>
H 17 bar; 250 psig; 1.7 MPa

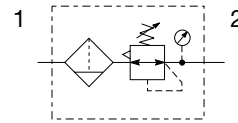
**Bold items are most common.**

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Part number†
1/2"	8 bar (125 psig) relieving	110 (233)	20 (300)	149 (5.87)	73 (2.87)	<b>P33RA14BNNP</b>
1/2"	8 bar (125 psig) relieving + gauge	110 (233)	20 (300)	149 (5.87)	108 (4.27)	<b>P33RA14BNGP</b>
3/4"	8 bar (125 psig) relieving	110 (233)	20 (300)	149 (5.87)	73 (2.87)	<b>P33RA16BNNP</b>
3/4"	8 bar (125 psig) relieving + gauge	110 (233)	20 (300)	149 (5.87)	108 (4.27)	<b>P33RA16BNGP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3) psig) set pressure and 1 bar (14.5 psig) pressure drop.

**Mini Filter / Regulator - P31**

**Symbols**



- Integral 1/4" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-16 bar (0-232 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation

**Options:**

**P31EB** **2** **E** **N** **P**

<b>Basic series</b> Global modular mini filter / regulator <b>P31EB</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9	<b>Element</b> 5µ Element <b>E</b>	<b>Relief</b> B Relieving N Non-relieving	<b>Mounting</b> P Plastic panel mount nut																																												
	<b>Port size</b> 1/4 <b>2</b>		<b>Drain type</b> B Pulse drain M Manual drain																																													
	<b>Bowl type</b> Poly bowl with bowl guard <b>G</b> Metal bowl without sight gauge <b>M</b>		<b>Adjustment range</b>																																													
			<table border="1"> <thead> <tr> <th colspan="2">With square gauge</th> <th colspan="2">With round gauge</th> </tr> <tr> <th>psig</th> <th>bar</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td><b>1 = 30*</b></td> <td><b>V = 2*</b></td> <td>Z</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td><b>3 = 60</b></td> <td><b>S = 4</b></td> <td>M</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td><b>5 = 125</b></td> <td><b>T = 8</b></td> <td>G</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td></td> <td></td> <td>J<sup>§</sup></td> <td>16 bar; 232 psig; 1.6 MPa</td> </tr> <tr> <td colspan="4"><b>Without gauge</b></td> </tr> <tr> <td></td> <td></td> <td><b>Y</b></td> <td><b>2 bar; 30 psig; 0.2 MPa</b></td> </tr> <tr> <td></td> <td></td> <td><b>L</b></td> <td><b>4 bar; 60 psig; 0.4 MPa</b></td> </tr> <tr> <td></td> <td></td> <td><b>N</b></td> <td><b>8 bar; 125 psig; 0.8 MPa</b></td> </tr> <tr> <td></td> <td></td> <td><b>H<sup>§</sup></b></td> <td><b>16 bar; 232 psig; 1.6 MPa</b></td> </tr> </tbody> </table>		With square gauge		With round gauge		psig	bar			<b>1 = 30*</b>	<b>V = 2*</b>	Z	2 bar; 30 psig; 0.2 MPa	<b>3 = 60</b>	<b>S = 4</b>	M	4 bar; 60 psig; 0.4 MPa	<b>5 = 125</b>	<b>T = 8</b>	G	8 bar; 125 psig; 0.8 MPa			J <sup>§</sup>	16 bar; 232 psig; 1.6 MPa	<b>Without gauge</b>						<b>Y</b>	<b>2 bar; 30 psig; 0.2 MPa</b>			<b>L</b>	<b>4 bar; 60 psig; 0.4 MPa</b>			<b>N</b>	<b>8 bar; 125 psig; 0.8 MPa</b>			<b>H<sup>§</sup></b>	<b>16 bar; 232 psig; 1.6 MPa</b>
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\* Unit comes with 0-4 bar or 0-60 psig gauge respectively.  
 § Not available with poly bowl with bowl guard.  
 Bar gauges fitted to BSPP  
 PSI gauges fitted to NPT

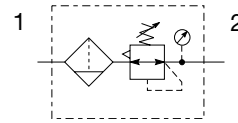
**Bold items are most common.**

Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	8 bar (125 psig) relieving - poly bowl - manual drain	35 (74)	10 (150)	176.9 (6.96)	40 (1.58)	61.3 (2.41)	<b>P31EB12EGMBNTP</b>
1/4"	8 bar (125 psig) relieving - poly bowl - pulse drain	35 (74)	10 (150)	172.0 (6.77)	40 (1.58)	61.3 (2.41)	<b>P31EB12EGBBNT</b>
1/4"	8 bar (125 psig) relieving - metal bowl - manual drain	35 (74)	17 (250)	176.9 (6.96)	40 (1.58)	61.3 (2.41)	<b>P31EB12EMMBNTP</b>
1/4"	8 bar (125 psig) relieving - metal bowl - pulse drain	35 (74)	17 (250)	172.0 (6.77)	40 (1.58)	61.3 (2.41)	<b>P31EB12EMBBNTP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

**Compact Filter / Regulator - P32**

**Symbols**



- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation

**Options:**

<b>P32EB</b>				<b>E</b>				<b>N</b>		<b>P</b>																																								
<b>Basic series</b> Global modular compact filter / regulator <b>P32EB</b>	<b>Thread type</b> BSPP 1 NPT 9	<b>Element</b> 5µ Element <b>E</b>	<b>Port size</b> 1/4 2 3/8 3 1/2 4	<b>Bowl type</b> Poly bowl with bowl guard <b>G</b> Metal bowl with sight gauge <b>S</b>	<b>Relief</b> B Relieving N Non-relieving	<b>Drain type</b> M Manual drain A Auto drain	<b>Adjustment range</b>		<b>Mounting</b> P Plastic panel mount nut																																									
							<table border="1"> <tr> <th colspan="2">With square gauge</th> <th colspan="2">With round gauge</th> </tr> <tr> <td>psig</td> <td>bar</td> <td>Z</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td>1 = 30*</td> <td>V = 2*</td> <td>M</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td>3 = 60</td> <td>S = 4</td> <td>G</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td>5 = 125</td> <td>T = 8</td> <td>J<sup>§</sup></td> <td>17 bar; 250 psig; 1.7 MPa</td> </tr> <tr> <td colspan="4"><b>Without gauge</b></td> </tr> <tr> <td></td> <td></td> <td>Y</td> <td>2 bar; 30 psig; 0.2 MPa</td> </tr> <tr> <td></td> <td></td> <td>L</td> <td>4 bar; 60 psig; 0.4 MPa</td> </tr> <tr> <td></td> <td></td> <td>N</td> <td>8 bar; 125 psig; 0.8 MPa</td> </tr> <tr> <td></td> <td></td> <td>H<sup>§</sup></td> <td>17 bar; 250 psig; 1.7 MPa</td> </tr> </table>		With square gauge		With round gauge		psig	bar	Z	2 bar; 30 psig; 0.2 MPa	1 = 30*	V = 2*	M	4 bar; 60 psig; 0.4 MPa	3 = 60	S = 4	G	8 bar; 125 psig; 0.8 MPa	5 = 125	T = 8	J <sup>§</sup>	17 bar; 250 psig; 1.7 MPa	<b>Without gauge</b>						Y	2 bar; 30 psig; 0.2 MPa			L	4 bar; 60 psig; 0.4 MPa			N	8 bar; 125 psig; 0.8 MPa			H <sup>§</sup>	17 bar; 250 psig; 1.7 MPa		
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<b>Bold items are most common.</b>					<p>* Unit comes with 0-4 bar or 0-60 psig gauge respectively.                  § Not available with poly bowl with bowl guard.</p>																																													

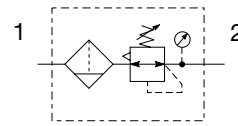
Port size	Description	Flow <sup>†</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	8 bar (125 psig) relieving - poly bowl - manual drain	42 (89)	10 (150)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB12EGMBNGP</b>
1/4"	8 bar (125 psig) relieving - poly bowl - auto drain	42 (89)	10 (150)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB12EGABNGP</b>
1/4"	8 bar (125 psig) relieving - metal bowl - manual drain	42 (89)	17 (250)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB12ESMBNGP</b>
1/4"	8 bar (125 psig) relieving - metal bowl - auto drain	42 (89)	17 (250)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB12ESABNGP</b>
3/8"	8 bar (125 psig) relieving - poly bowl - manual drain	58 (123)	10 (150)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB13EGMBNGP</b>
3/8"	8 bar (125 psig) relieving - poly bowl - auto drain	58 (123)	10 (150)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB13EGABNGP</b>
3/8"	8 bar (125 psig) relieving - metal bowl - manual drain	58 (123)	17 (250)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB13ESMBNGP</b>
3/8"	8 bar (125 psig) relieving - metal bowl - auto drain	58 (123)	17 (250)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB13ESABNGP</b>
1/2"	8 bar (125 psig) relieving - poly bowl - manual drain	64 (136)	10 (150)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB14EGMBNGP</b>
1/2"	8 bar (125 psig) relieving - poly bowl - auto drain	64 (136)	10 (150)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB14EGABNGP</b>
1/2"	8 bar (125 psig) relieving - metal bowl - manual drain	64 (136)	17 (250)	261.6 (10.3)	60 (2.36)	93 (3.66)	<b>P32EB14ESMBNGP</b>
1/2"	8 bar (125 psig) relieving - metal bowl - auto drain	64 (136)	17 (250)	255.6 (10.1)	60 (2.36)	93 (3.66)	<b>P32EB14ESABNGP</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.



**Standard Filter / Regulator - P33**

**Symbols**



- Integral 1/2" or 3/4" ports (NPT & BSPP)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminum construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 0-2 bar (0-30 psig), 0-4 bar, (0-60 psig), 0-8 bar (0-125 psig), 0-17 bar (0-250 psig)
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation

**Options:**

<b>P33EA</b>				<b>E</b>				<b>N</b>		<b>P</b>
<b>Basic series</b> Global modular standard filter / regulator <b>P33EA</b>	<b>Thread type</b> BSPP <b>1</b> NPT 9		<b>Element</b> 5µ Element <b>E</b>				<b>Relief</b> <b>B</b> Relieving N Non-relieving		<b>Mounting</b> <b>P</b> Plastic panel mount nut	
	<b>Port size</b> 1/2 <b>4</b> 3/4 <b>6</b>					<b>Drain type</b> <b>M</b> Manual drain <b>A</b> Auto drain		<b>Adjustment range</b>		
			<b>Bowl type</b> Poly bowl with bowl guard <b>G</b> Metal bowl with sight gauge <b>S</b>				<b>With round gauge</b> <b>Z</b> 2 bar; 30 psig; 0.2 MPa <b>M</b> 4 bar; 60 psig; 0.4 MPa <b>G</b> 8 bar; 125 psig; 0.8 MPa <b>J<sup>§</sup></b> 17 bar; 250 psig; 1.7 MPa <b>Without gauge</b> <b>Y</b> 2 bar; 30 psig; 0.2 MPa <b>L</b> 4 bar; 60 psig; 0.4 MPa <b>N</b> 8 bar; 125 psig; 0.8 MPa <b>H<sup>§</sup></b> 17 bar; 250 psig; 1.7 MPa			

**Bold items are most common.**

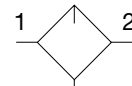
§ Not available with poly bowl with bowl guard.

Port size	Description	Flow <sup>‡</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/2"	8 bar (125 psig) relieving - poly bowl - manual drain	99 (210)	10 (150)	291 (11.44)	73 (2.87)	108 (4.27)	<b>P33EA14EGMBNGP</b>
1/2"	8 bar (125 psig) relieving - poly bowl - auto drain	99 (210)	10 (150)	285 (11.22)	73 (2.87)	108 (4.27)	<b>P33EA14EGABNGP</b>
1/2"	8 bar (125 psig) relieving - metal bowl - manual drain	99 (210)	17 (250)	291 (11.44)	73 (2.87)	108 (4.27)	<b>P33EA14ESMBNGP</b>
1/2"	8 bar (125 psig) relieving - metal bowl - auto drain	99 (210)	17 (250)	285 (11.22)	73 (2.87)	108 (4.27)	<b>P33EA14ESABNGP</b>
3/4"	8 bar (125 psig) relieving - poly bowl - manual drain	108 (230)	10 (150)	291 (11.44)	73 (2.87)	108 (4.27)	<b>P33EA16EGMBNGP</b>
3/4"	8 bar (125 psig) relieving - poly bowl - auto drain	108 (230)	10 (150)	285 (11.22)	73 (2.87)	108 (4.27)	<b>P33EA16EGABNGP</b>
3/4"	8 bar (125 psig) relieving - metal bowl - manual drain	108 (230)	17 (250)	291 (11.44)	73 (2.87)	108 (4.27)	<b>P33EA16ESMBNGP</b>
3/4"	8 bar (125 psig) Relieving - Metal bowl - Auto drain	108 (230)	17 (250)	285 (11.22)	73 (2.87)	108 (4.27)	<b>P33EA16ESABNGP</b>

<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.  
<sup>‡</sup> Flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

**Mini Lubricator - P31**

**Symbol**



Lubricator with drain

- Integral 1/4" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Proportional oil delivery over a wide range of air flows
- Finger tip ratchet control for precise oil drip rate adjustment

**Options:**

**P31LB**   **2**   **L**   **N**   **N**

<b>Basic series</b> Global modular mini lubricator <b>P31LB</b>	<b>Thread type</b> BSPP   1 NPT   9	<b>Port size</b> 1/4   2	<b>Lube type</b> Oil mist standard sight dome <b>L</b>	<b>Drain type</b> N   No drain closed end	<b>Mounting</b> N   No bracket
				<b>Bowl type</b> G   Poly bowl with bowl guard M   Metal bowl without sight gauge	

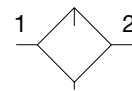
**Bold items are most common.**

Port size	Description	Flow† dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number†
1/4"	Poly bowl - No drain	19 (40)	10 (150)	153.3 (6.04)	40 (1.58)	40 (1.58)	<b>P31LB12LGNN</b>
1/4"	Metal bowl - No drain	19 (40)	17 (250)	153.3 (6.04)	40 (1.58)	40 (1.58)	<b>P31LB12LMNN</b>

† Standard part numbers shown in bold. For other models refer to Options chart above.  
 ‡ Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 bar (4.9 psig) pressure drop.

**Compact Lubricator - P32**

**Symbol**



Lubricator with drain

- Integral 1/4", 3/8" or 1/2" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Proportional oil delivery over a wide range of air flows
- Finger tip ratchet control for precise oil drip rate adjustment
- Fill from top under system pressure

**Options:**

**P32LB** [ ] [ ] **L** [ ] **N** **N**

<b>Basic series</b> Global modular compact lubricator <b>P32LB</b>	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/4 2 3/8 3 1/2 4	<b>Lube type</b> Oil mist standard sight dome <b>L</b>	<b>Drain type</b> N No drain closed end	<b>Mounting</b> N No bracket	<b>Bowl type</b> G Poly bowl with bowl guard S Metal bowl with sight gauge
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**Bold items are most common.**

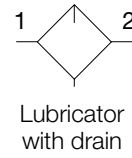
Port size	Description	Flow <sup>‡</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/4"	Poly bowl - No drain	17 (35)	10 (150)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB12LGNN</b>
1/4"	Metal bowl - No drain	17 (35)	17 (250)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB12LSNN</b>
3/8"	Poly bowl - No drain	33 (70)	10 (150)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB13LGNN</b>
3/8"	Metal bowl - No drain	33 (70)	17 (250)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB13LSNN</b>
1/2"	Poly bowl - No drain	42 (90)	10 (150)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB14LGNN</b>
1/2"	Metal bowl - No drain	42 (90)	17 (250)	217.3 (8.56)	60 (2.36)	60 (2.36)	<b>P32LB14LSNN</b>

<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.

<sup>‡</sup> Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 bar (4.9 psig) pressure drop.

**Standard Lubricator - P33**

**Symbol**



- Integral 1/2" or 3/4" ports (NPT & BSPP)
- Robust but lightweight aluminum construction
- Proportional oil delivery over a wide range of air flows
- Finger tip ratchet control for precise oil drip rate adjustment
- Fill from top under system pressure

**Options:**

**P33LA** [ ] [ ] **L** [ ] **N** **N**

<b>Basic series</b> Global modular standard lubricator P33LA	<b>Thread type</b> BSPP 1 NPT 9	<b>Port size</b> 1/2 4 3/4 6	<b>Lube type</b> Oil mist standard sight dome L	<b>Drain type</b> N No drain closed end	<b>Bowl type</b> G Poly bowl with bowl guard S Metal bowl with sight gauge	<b>Mounting</b> N No bracket
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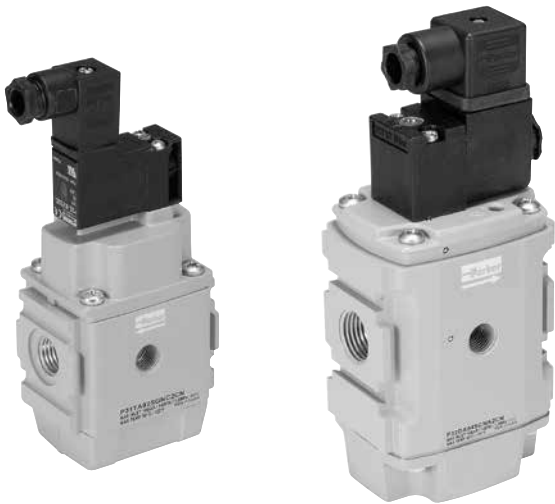
**Bold items are most common.**

Port size	Description	Flow <sup>‡</sup> dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Part number <sup>†</sup>
1/2"	Poly bowl - No drain	52 (110)	10 (150)	234 (9.21)	73 (2.9)	73 (2.9)	<b>P33LA14LGNN</b>
1/2"	Metal bowl - No drain	52 (110)	17 (250)	234 (9.21)	73 (2.9)	73 (2.9)	<b>P33LA14LSNN</b>
3/4"	Poly bowl - No drain	71 (150)	10 (150)	234 (9.21)	73 (2.9)	73 (2.9)	<b>P33LA16LGNN</b>
3/4"	Metal bowl - No drain	71 (150)	17 (250)	234 (9.21)	73 (2.9)	73 (2.9)	<b>P33LA16LSNN</b>

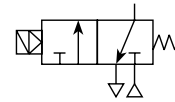
<sup>†</sup> Standard part numbers shown in bold. For other models refer to Options chart above.

<sup>‡</sup> Flow with 6.3 bar (91.3 psig) inlet pressure and 0.34 bar (4.9 psig) pressure drop.

**Dump Valve**



**Symbol**



- Modular design with 1/4" or 1/2" integral ports (NPT & BSPP)
- The 3-way, 2-position function automatically dumps downstream pressure on the loss of pilot signal
- Solenoid or air pilot options
- High flow & exhaust capability
- Silencer included

Remotely operated dump valves automatically shut off upstream pressure and exhaust the downstream pressure when the pilot pressure is released.

To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version must be maintained. The valve will automatically dump when the holding signal is removed.

**Options:**

**P31DA** [ ] [ ] [ ] [ ] **N**

**Body size**

Dump valve (1/4")	<b>P31DA</b>
Dump valve (1/2")	<b>P32DA</b>

**Thread type**

<b>BSPP</b>	<b>1</b>
NPT	9

**Actuator interface**

<b>G</b>	15mm solenoid (P31 only)
<b>C</b>	30mm solenoid
<b>P</b>	Threaded Air Pilot

**Solenoid voltage**

<b>000</b>	Solenoid / Coil not fitted
<b>2CN</b>	24VDC non locking manual override
<b>3GN</b>	120VAC non locking manual override
<b>1FN</b>	120VAC non locking manual override (P31 series only)

**Pilot type**

<b>P</b>	External air pilot
<b>S</b>	Solenoid pilot

**Solenoid type only**

<b>0</b>	None (For P32 series - operator is fitted to valve)
<b>C</b>	15mm (P31 series only)
<b>A</b>	30mm CNOMO coil (P32 only)
<b>D</b>	30mm CNOMO coil (M12 connection) (P32 only)

**Port size**

Global modular mini (1/4")	<b>2</b>
Global modular compact (1/2")	<b>4</b>

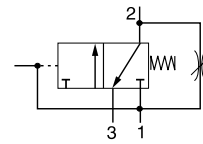
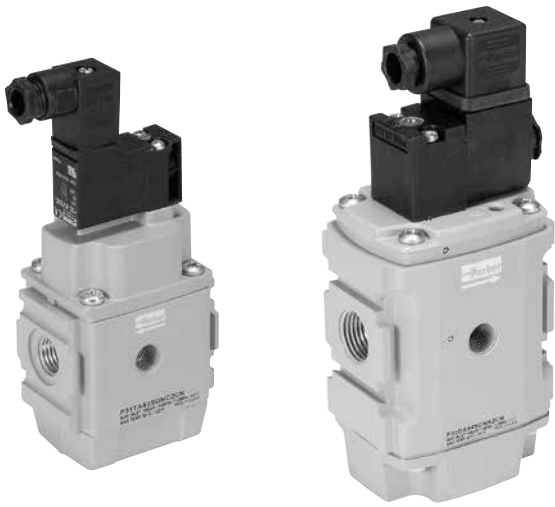
**Note:**  
P32 unit used for both P32 & P33 series  
**Bold items are most common.**

Port size	Description	Flow dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lbs)	Part number†
1/4"	Solenoid operated (not included)	17 (36)	10 (150)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37 (0.8)	<b>P31DA12SGN0000</b>
1/4"	24VDC Solenoid & cable plug	17 (36)	10 (150)	166‡ (6.5)	57 (2.2)	40 (1.5)	0.41 (0.9)	<b>P31DA12SGNC2CN</b>
1/4"	External air pilot operated	17 (36)	17 (250)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37 (0.8)	<b>P31DA12PPN</b>
1/2"	Solenoid operated (not included)	51 (108)	10 (150)	162.5‡ (6.3)	75 (2.9)	57.2 (2.2)	0.69 (1.5)	<b>P32DA14SCN0000</b>
1/2"	24VDC 30mm coil & cable plug incl.	51 (108)	10 (150)	227.5‡ (8.9)	75 (2.9)	57.2 (2.2)	0.91 (2.0)	<b>P32DA14SCNA2CN</b>
1/2"	External air pilot operated	51 (108)	17 (250)	162.5‡ (6.3)	75 (2.9)	57.2 (2.2)	0.87 (1.9)	<b>P32DA14PPN</b>

‡ Includes exhaust silencer  
† **Standard part numbers shown in bold. For other models refer to Options chart above.**

**Combined Soft Start / Dump Valve**

**Symbol**



- Modular design with 1/4" or 1/2" integral ports (NPT & BSPP)
- Provides for the safe introduction of pressure
- The 3-way, 2-position function automatically dumps downstream pressure on the loss of pilot signal
- Adjustable slow start
- Solenoid or air pilot options
- High flow & exhaust capability
- Silencer included

Parker Global Series Combined Soft Start / Dump Valves, provide for the safe introduction of pressure to machines or systems. Soft Start / Dump Valves when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up.

To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version must be maintained. The valve will automatically dump when the holding signal is removed.

**Options:**

**P31TA** [ ] [ ] [ ] [ ] **N** [ ] [ ]

**Body size**

Soft start / dump valve (1/4")	<b>P31TA</b>
Soft start / dump valve (1/2")	<b>P32TA</b>

**Thread type**

BSPP	<b>1</b>
NPT	9

**Port size**

Global modular mini (1/4")	<b>2</b>
Global modular compact (1/2")	<b>4</b>

**Actuator interface**

<b>G</b>	15mm solenoid (P31 only)
<b>C</b>	30mm solenoid
<b>P</b>	Threaded air pilot

**Pilot type**

<b>P</b>	External air pilot
<b>S</b>	Solenoid pilot

**Solenoid type only**

**Solenoid voltage**

<b>000</b>	Solenoid / Coil not fitted
<b>2CN</b>	24VDC non locking manual override
<b>3GN</b>	120VAC non locking manual override
<b>1FN</b>	120VAC non locking manual override (P31 series only)

**Solenoid type**

<b>0</b>	None (For P32 series - Operator is fitted to valve)
<b>C</b>	15mm (P31 series only)
<b>A</b>	30mm CNOMO coil (P32 only)
<b>D</b>	30mm CNOMO coil (M12 connection) (P32 only)

Note:  
P32 unit used for both P32 & P33 series  
**Bold items are most common.**

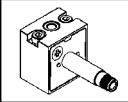
Port size	Description	Flow† dm³/s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lbs)	Part number†
1/4"	Solenoid operated (not included)	17 (36)	10 (150)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37 (0.8)	<b>P31TA12SGN0000</b>
1/4"	24VDC Solenoid & cable plug	17 (36)	10 (150)	166† (6.5)	57 (2.2)	40 (1.5)	0.41 (0.9)	<b>P31TA12SGNC2CN</b>
1/4"	External air pilot operated	17 (36)	17 (250)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37 (0.8)	<b>P31TA12PPN</b>
1/2"	Solenoid operated (not included)	46 (97)	10 (150)	162.5† (6.3)	88 (3.4)	57.2 (2.2)	0.87 (1.9)	<b>P32TA14SCN0000</b>
1/2"	24VDC 30mm coil & cable plug incl.	46 (97)	10 (150)	227.5† (8.9)	88 (3.4)	57.2 (2.2)	0.91 (2.0)	<b>P32TA14SCNA2CN</b>
1/2"	External air pilot operated	46 (97)	17 (250)	162.5† (6.3)	75 (2.9)	57.2 (2.2)	0.87 (1.9)	<b>P32TA14PPN</b>

† Includes exhaust silencer. Flow with 6.3 bar (91.3 psig) inlet and 1 bar (14.5 psig) pressure drop.  
† **Standard part numbers shown in bold. For other models refer to Options chart above.**



Solenoid operator - CNOMO

Order key

<b>P 2 F</b>	<b>P 2</b>	<b>3</b>	<b>N</b>	<b>4</b>	<b>B</b>	
<b>Operator Type</b>		<b>Pressure / Temp</b>		<b>Manual / Override</b>		
2 CNOMO 22 x 30 Plastic		N 10 bar / -10°C to +50°C		B Non locking - monostable - Flush - Brass		

Technical data - Solenoid operators, coil combinations

	NC Normal Operator with 30 x 30 standard coil	NC Normal Operator with 22 x 30 standard coil
Working pressure	0 to 10 bar	0 to 10 bar
Ambient temperature	-10 °C to 60 °C (1)	-10 °C to 60 °C (1)
Orifice	1.3/1.5mm	1.3/1.5mm
Flow Qn	0.84 dm³/s	0.84 dm³/s
Power (DC)	2.7W	4.8W
Power (AC)	4.9VA	8.5VA
Voltage tolerance	+/- 10%	+/- 10%
Duty cycle	100%	100%
Insulation class	F	F
Electric connection	Form A	Industrial B
Protection	IP65	IP65
Shock & Vibration	1g	1g
Approval	UL/CSA	
Working media	All neutral media such as compressed air and inert gases.	

(1) limited to 50°C if use with 100% duty cycle

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors/cable plugs EN175301-803 with LED's include this type of circuit protection.

Materials

Pilot Valve

Body:	Polyamide
Armature tube:	Brass
Plunger & core:	Corrosion resistant Cr-Ni steel
Seals:	FKM (Viton™)
Screws:	Stainless steel

Coil

Encapsulation material:	Thermoplastic as standard Duroplast for M12 connection
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Solenoid coils with Din A or Industrial B connection

Voltage	30mm x 30mm Weight (Kg)	Order code Industrial B Standard	22mm x 30mm Weight (Kg)	Order code Industrial B Standard
Direct current				
12V DC	<b>P2FCA445</b>	0.105	<b>P2FCB445</b>	0.093
24V DC	<b>P2FCA449</b>	0.105	<b>P2FCB449</b>	0.093
48V DC	<b>P2FCA453*</b>	0.105	<b>P2FCB451</b>	0.093
Alternative current				
12V 50/60Hz	<b>P2FCA440</b>	0.105	<b>P2FCB440</b>	0.093
24V 50/60Hz	<b>P2FCA442</b>	0.105	<b>P2FCB442</b>	0.093
48V 50/60Hz	<b>P2FCA469#</b>	0.105		
110V 50Hz, 120V 60Hz	<b>P2FCA453*</b>	0.105	<b>P2FCB453</b>	0.093
230V 50Hz, 230V 60Hz	<b>P2FCA457</b>	0.105	<b>P2FCB457</b>	0.093

\* P2FCA453 is compatible with 110 V AC and 48 V DC  
# P2FCA469 is 24 V DC 6.8W or 48 V 50Hz 9.9 VA

Solenoid coils with M12 connection

Voltage	Order code Form A 30 x 30	W (Kg)	Order code Form B 22 x 30	W (Kg)
Direct current				
24V DC	<b>P2FC6419</b>	0.065	<b>P2FC7419</b>	0.065

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code	<b>P2FNP</b>
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Valves with vented exhaust are fitted with diffuser plastic nut

Order code	<b>P2FND</b>
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Spare Solenoid Operators




Solenoid pilot operator CNOMO NC

Description	Order code	Weight (Kg)
Standard duty	<b>P2FP23N4B</b>	0.065

**Note.**  
Solenoid pilot operators are fitted to the Global range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings. **Coils and connectors must be ordered separately.**

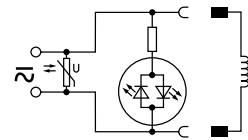
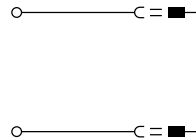
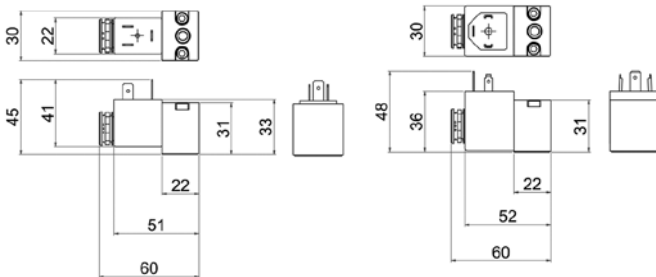


Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 15mm Form C ISO15217	Order code 22mm Form B Industrial	Order code 30mm Form A ISO4400
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65 24V DC LED and protection IP65	<b>P8C-C</b> <b>P8C-C26C</b>		
	110V AC LED and protection IP65	<b>P8C-C21E</b>		
	Standard IP65 without flying lead	<b>P8C-D</b>	<b>3EV10V10</b>	<b>3EV290V10</b>
With standard screw 	With LED and protection 24V AC/DC	<b>P8C-D26C</b>	<b>3EV10V20-24</b>	<b>3EV290V20-24</b>
	With LED and protection 110V AC	<b>P8C-D21E</b>	<b>3EV10V20-110</b>	<b>3EV290V20-110</b>
	With LED and protection 230V AC		<b>3EV10V20-230</b>	<b>3EV290V20-230</b>
	Standard with 2m cable IP65	<b>P8L-C2</b>		
With cable 	Standard with 5m cable IP65	<b>P8L-C5</b>		
	24V AC/DC, 2m cable LED and protection IP65	<b>P8L-C226C</b>		
	24V AC/DC, 5m cable LED and protection IP65	<b>P8L-C526C</b>	<b>3EV10V20-24L5</b>	<b>3EV290V20-24L5</b>
	24V AC/DC, 10m cable LED and protection IP65	<b>P8L-CA26C</b>		
	110V AC/DC, 2m cable LED and protection IP65	<b>P8L-C221E</b>		
	110V AC/DC, 5m cable LED and protection IP65	<b>P8L-C521E</b>	<b>3EV10V20-110L5</b>	<b>3EV290V20-110L5</b>
	230V AC, 5m cable LED and protection IP65		<b>3EV10V20-230L5</b>	<b>3EV290V20-230L5</b>

Solenoid Coil & Cable Plug Dimensions (mm)

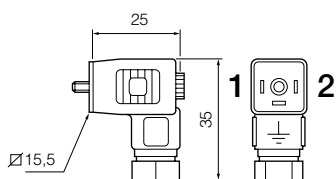
P2F - CNOMO - 22 x 30mm



<b>P8C-C</b>	<b>P8C-D26C</b>	<b>P8L-C226C</b>
<b>P8C-D</b>	<b>P8C-D21E</b>	<b>P8L-C526C</b>
<b>P8L-C2</b>	<b>P8C-C26C</b>	<b>P8L-CA26C</b>
<b>P8L-C5</b>	<b>P8C-C21E</b>	<b>P8L-C221E</b>
<b>3EV10V10</b>		<b>P8L-C521E</b>
	<b>3EV10V20-24</b>	<b>3EV10V20-24L5</b>
	<b>3EV10V20-110</b>	<b>3EV10V20-110L5</b>
	<b>3EV10V20-230</b>	<b>3EV10V20-230L5</b>

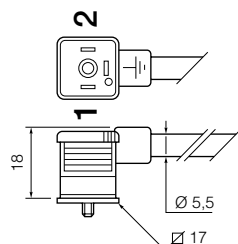
Form C  
Cable plugs

<b>P8C-C</b>
<b>P8C-C26C</b>
<b>P8C-C21E</b>
<b>P8C-D</b>
<b>P8C-D26C</b>
<b>P8C-D21E</b>



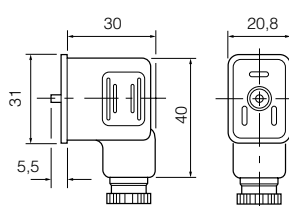
Form C  
Cable plugs

<b>P8L-C2</b>
<b>P8LC5</b>
<b>P8L-C226C</b>
<b>P8L-C526C</b>
<b>P8L-CA26C</b>
<b>P8L-C221E</b>
<b>P8L-C521E</b>



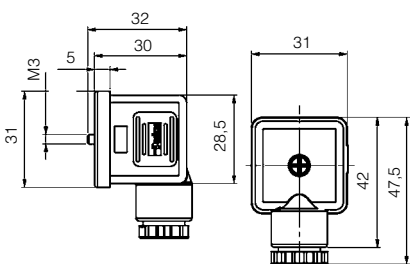
Form B  
Cable plugs

<b>3EV10V10</b>
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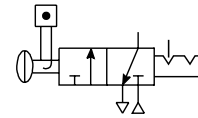
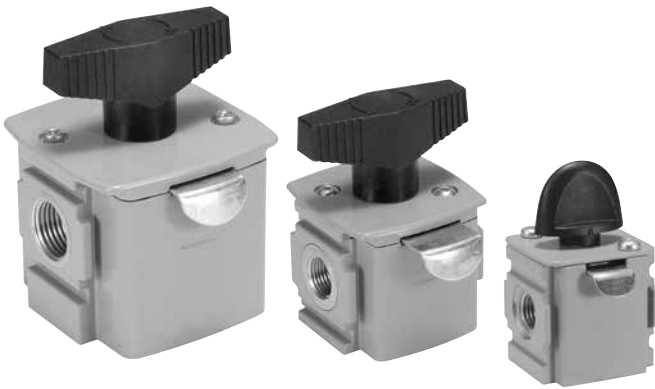
Form A  
Cable plugs

<b>3EV290V10</b>
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**Ball Valve / Lockout Valve**

**Symbol**



**Features**

The Ball / Lockout Valve shuts off downstream line pressure in the closed position with a 90° turn of the handle. In the closed position, inlet air pressure is blocked and downstream / system air is exhausted through a threaded port. To prevent unauthorized adjustment, the padlock slide may be assembled on either side. It is recommended that this slide is installed after final system assembly.

**Note:** This padlock slide is a permanent assembly and may not be removed later, any unauthorized tampering will void any warranty claims. The valve can only be locked in the closed position.

**Ordering Information**

Model type	Port size	Exhaust port	Thread type	Flow dm <sup>3</sup> /s (scfm)	Modular ball valve flow from left to right
<b>P31</b>	1/4"	1/4"	BSPP	20 (42.4)	<b>P31VB12LBNN</b>
<b>P32</b>	3/8"	1/4"	BSPP	90 (190.7)	<b>P32VB13LBNN</b>
	1/2"	1/4"	BSPP	122 (258.5)	<b>P32VB14LBNN</b>
<b>P33</b>	1/2"	1/2"	BSPP	265 (561.5)	<b>P33VB14LBNN</b>
	3/4"	1/2"	BSPP	320 (678)	<b>P33VB16LBNN</b>

For thread type: NPT **9**

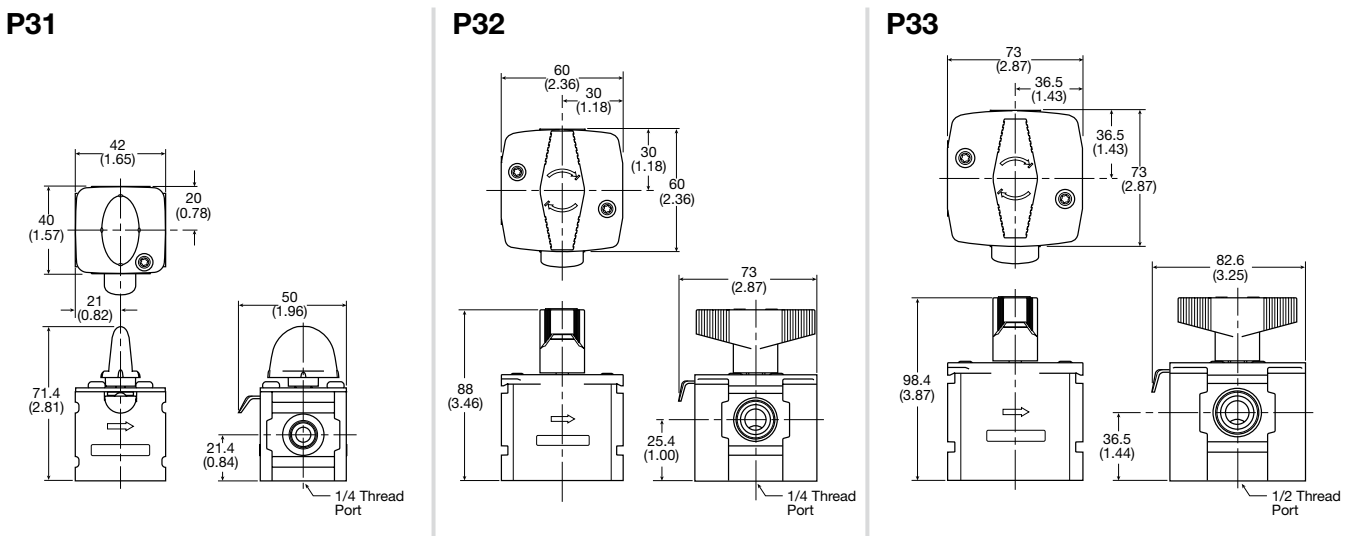
**Specifications**

Operating temperature	-40°C to 80°C (-40°F to 176°F)	
Max. supply pressure	17 bar (250 psig)	
Port size	BSPP / NPT	1/4, 3/8, 1/2, 3/4
Weight	<b>P31:</b>	0.15 kg (0.33 lbs)
	<b>P32:</b>	0.36 kg (0.79 lbs)
	<b>P33:</b>	0.55 kg (1.21 lbs)

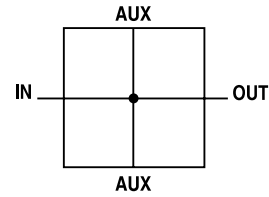
**Material Specifications**

Body	Aluminum	
Seals	PTFE	
Ball	<b>P31</b>	Stainless Steel
	<b>P32 / P33</b>	Stainless Steel

**Dimensions mm (inches)**



**Manifold Blocks**



**Features**

- Available in 1/4, 1/2 & 3/4 threaded inlet / outlet ports
- Two additional top and bottom auxiliary ports standard
- Can be mounted anywhere in the FRL system

**Manifold Blocks**

Model Type	In / Out Port Size	Auxiliary Port Size Top	Auxiliary Port Size Bottom	Thread Type	Order Code
<b>P31</b>	1/4"	1/4"	1/4"	BSPP	<b>P31MA12022N</b>
<b>P32</b>	1/2"	1/4"	1/2"	BSPP	<b>P32MA14024N</b>
<b>P33</b>	3/4"	1/4"	1/2"	BSPP	<b>P33MA16024N</b>

For thread type: BSPP **1** NPT **9**

**Branch Manifold**

<b>P32</b>	1/2"	1/4"	1/4"	BSPP	<b>P32MD14022N</b>
<b>P32</b>	1/4"	1/4"	1/4"	BSPP	<b>P32MD12022N</b>

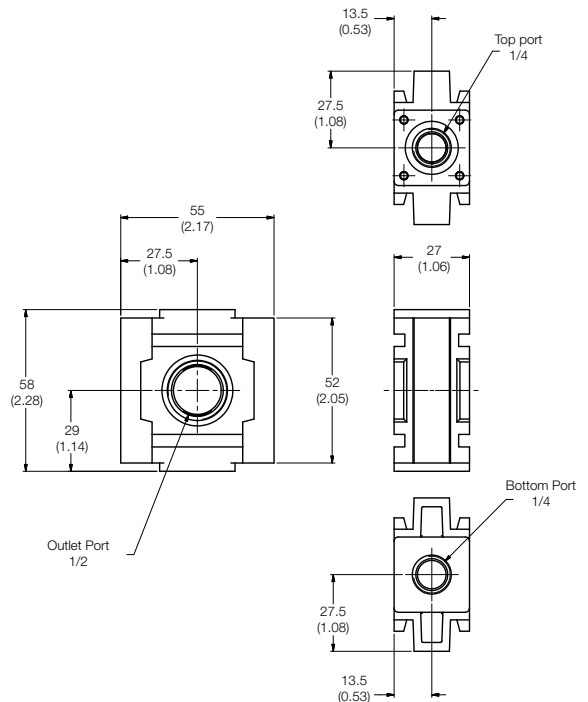
**Materials of Construction**

Body Aluminium

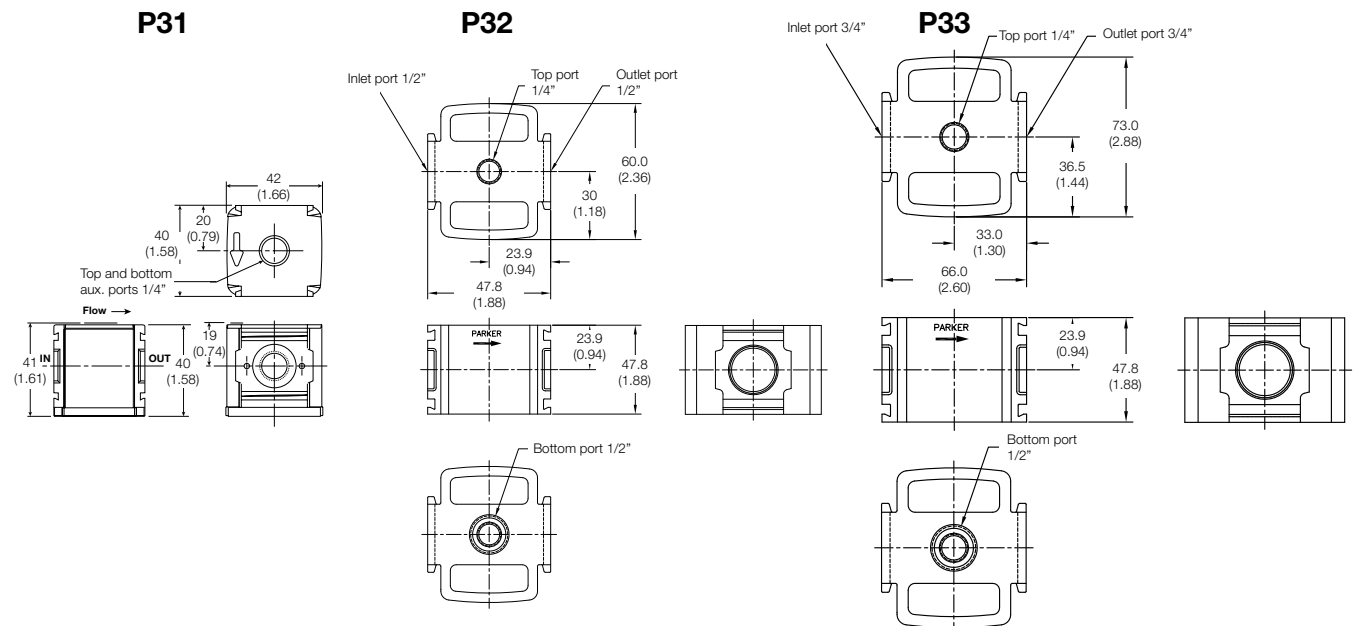
**Specifications**

Max Operating Temperature	65.5°C (150°F)
Max Supply Pressure	20.7 bar (300 psi)
Weight	<b>P31:</b> 0.19 kg (0.42 lbs) <b>P32:</b> 0.30 kg (0.66 lbs) <b>P32MD:</b> 0.14 kg (0.31 lbs) <b>P33:</b> 0.34 kg (0.75 lbs)

**Branch Manifold Dimensions - P32**



**Manifold Block - Dimensions**



**Pressure Sensors**  
**MPS-34, 2-Colour Panel Mount**

- Sensor output:  
 PNP Open collector  
 Transistor output, 30VDC, 125mA with Analog output,  
 4 to 20mA
- Output response time less than 2.0 milliseconds
- RoHS
- Air and non-corrosive gases
- Sensor face includes icons to show sensor programming status



Red ↔ Green Display

**Programming options**

Outputs change N.O. / N.C.	✓
Units of measure change	✓
Hysteresis mode	✓
Window comparator mode	✓
Auto teach mode	✓
Output response time	✓
Lockout option	✓
Password lockout	—
Max. value display	✓
Min. value display	✓
Zero reset	✓
Red / Green LED display options	✓
Error output mode	✓

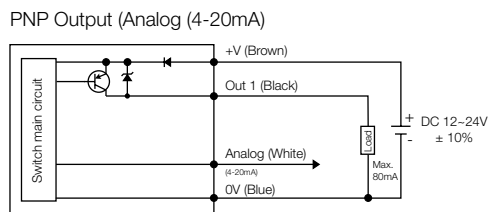
**MPS-34 Sensor Only Ordering Numbers**

Pressure range	Electrical output	Electrical connection	Order code	
			1/8 NPSF male	1/8 BSPP male
0-30 inHg	(1) PNP with (1) 4-20ma	M8, 4 Pin	<b>MPS-V34N-PCI</b>	<b>MPS-V34G-PCI</b>
0-145 PSI	(1) PNP with (1) 4-20ma	M8, 4 Pin	<b>MPS-P34N-PCI</b>	<b>MPS-P34G-PCI</b>

**MPS-34 Accessories**

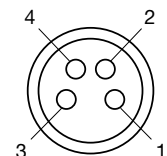
Description	Order code
M8, 4-pin, 2 meter cable	<b>CB-M8-4P-2M-PUR</b>
M8, 4-pin, 5 meter cable	<b>CB-M8-4P-5M-PUR</b>

**Internal circuit for open collector and analog output wiring**



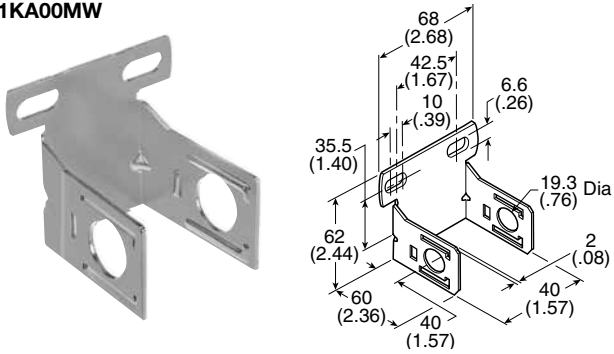
**Sensor pin out with analog output**

- Pin #**
- 1 Brown: 24VDC
  - 2 White: 4 to 20mA
  - 3 Blue: 0VDC
  - 4 Black: PNP Open Collector Output 1

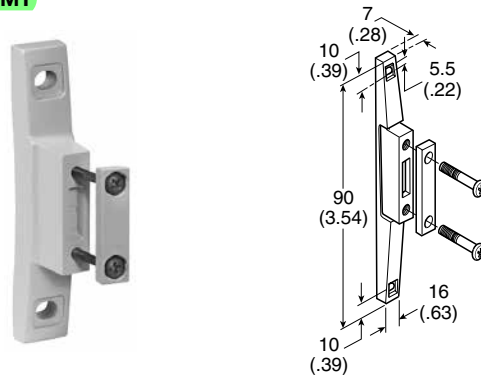


**Accessories - P31 Series**

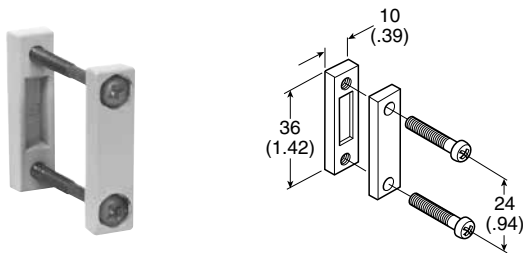
**C-Bracket**  
 (Fits to filter and lubricator body)  
**P31KA00MW**



**T-Bracket w/ Body Connector**  
 (O-ring not shown)  
**P31KA00MT**



**Body Connector**  
 (O-ring not shown)  
**P31KA00CB**



**Port Block Kit**  
 (O-ring not shown)

- 1/8 NPT ..... **P31KA91CP**
- 1/4 NPT ..... **P31KA92CP**
- 3/8 NPT ..... **P31KA93CP**
- 1/8 BSPP ..... **P31KA11CP**
- 1/4 BSPP ..... **P31KA12CP**
- 3/8 BSPP ..... **P31KA13CP**



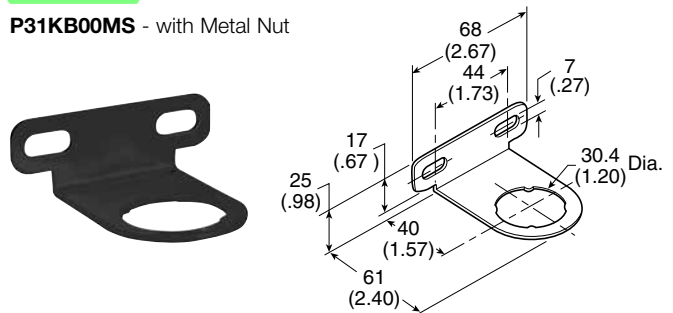
**Port Block Kit w/ T-Bracket**  
 (O-ring not shown)

- 1/8 NPT ..... **P31KA91CN**
- 1/4 NPT ..... **P31KA92CN**
- 3/8 NPT ..... **P31KA93CN**
- 1/8 BSPP ..... **P31KA11CN**
- 1/4 BSPP ..... **P31KA12CN**
- 3/8 BSPP ..... **P31KA13CN**



**Angle Bracket**  
 (Fits to regulator and filter/regulator body)

**P31KB00MR**  
**P31KB00MS - with Metal Nut**

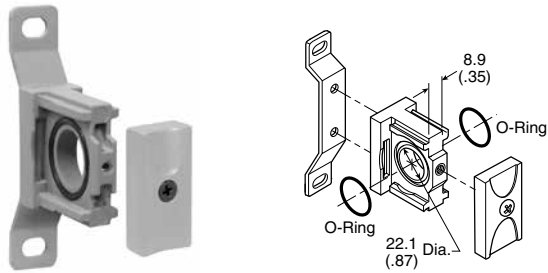




**Accessories - P32 Series**

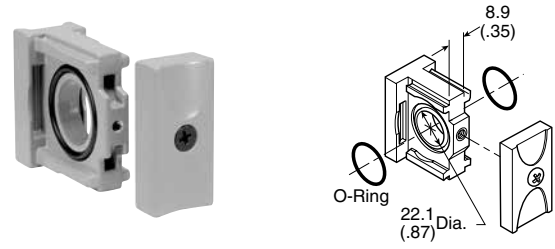
**T-Bracket w/ Body Connector**

**P32KA00MT**



**Body Connector**

**P32KA00CB**



**Port Block Kit**

- 1/4 NPT..... **P32KA92CP**
- 3/8 NPT..... **P32KA93CP**
- 1/2 NPT..... **P32KA94CP**
- 3/4 NPT..... **P32KA96CP**
- 1/4 BSPP ..... **P32KA12CP**
- 3/8 BSPP ..... P32KA13CP**
- 1/2 BSPP ..... P32KA14CP**
- 3/4 BSPP ..... P32KA16CP**

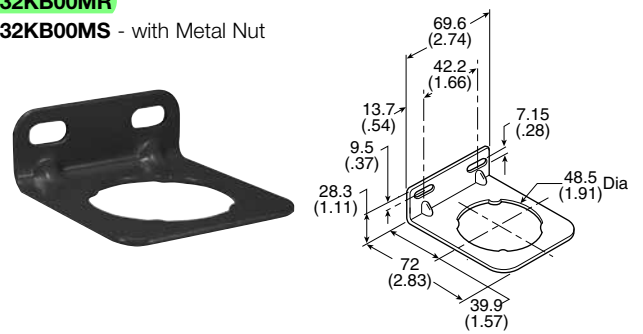


**Angle Bracket**

(Fits to regulator and filter/regulator bonnet)

**P32KB00MR**

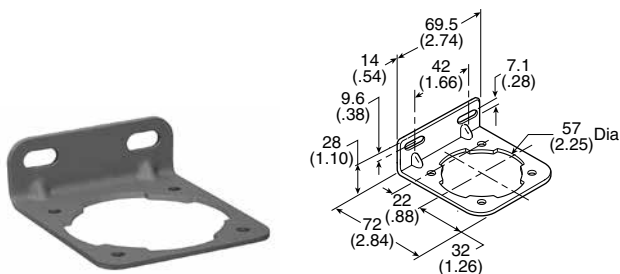
**P32KB00MS - with Metal Nut**



**L-Bracket**

(Fits to filter and lubricator body)

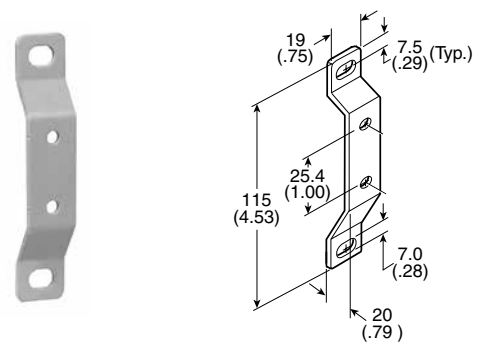
**P32KA00ML**



**T-Bracket**

(fits to body connector or port block)

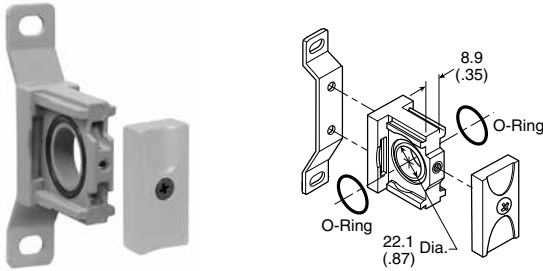
**P32KA00MB**



**Accessories - P33 Series**

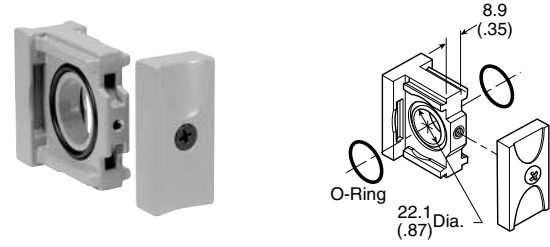
**T-Bracket w/ Body Connector**

**P32KA00MT**



**Body Connector**

**P32KA00CB**



**Port Block Kit**

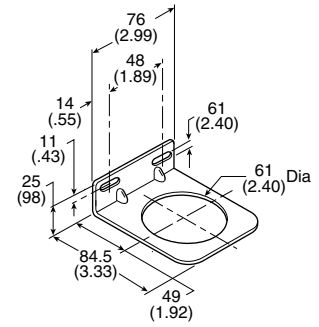
- 1/4 NPT..... **P32KA92CP**
- 3/8 NPT..... **P32KA93CP**
- 1/2 NPT..... **P32KA94CP**
- 3/4 NPT..... **P32KA96CP**
- 1/4 BSPP ..... **P32KA12CP**
- 3/8 BSPP ..... **P32KA13CP**
- 1/2 BSPP ..... **P32KA14CP**
- 3/4 BSPP ..... **P32KA16CP**



**Angle Bracket**

(Fits to regulator and filter/regulator bonnet)

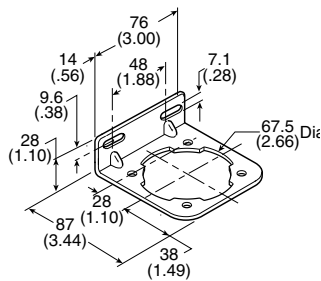
**P33KA00MR**



**L-Bracket**

(Fits to filter and lubricator body)

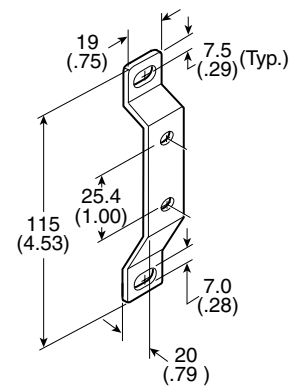
**P33KA00ML**
























**T-Bracket**

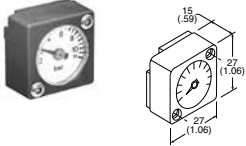
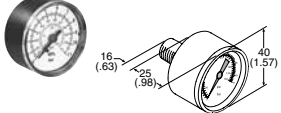
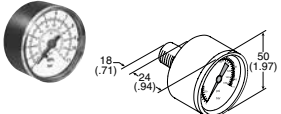



(fits to body connector or port block)

**P32KA00MB**



Series	Description	Part number	
P31 P32 P33	Panel Mount Nut (Plastic)	P31KA00MP P32KA00MP P33KA00MP	
P31 P32 P33	Panel Mount Nut (Aluminum)	P31KA00MM P32KA00MM P33KA00MM	
P31 P32 P33	5μ Element Kit	P31KA00ESE P32KA00ESE P33KA00ESE	
P31 P32 P33	1μ Element Kit	P31KA00ES9 P32KA00ES9 P33KA00ES9	
P31 P32 P33	0.01μ Element Kit	P31KA00ESC P32KA00ESC P33KA00ESC	
P31 P32 P33	Adsorber Element Kit	P31KA00ESA P32KA00ESA P33KA00ESA	
P32 / P33	Auto Drain Kit	P32KA00DA	
P31 P32 / P33	Differential Pressure Indicator Kit	P31KB00RQ P32KA00RQ	
P31 / P32 / P33	Drip Control Assembly Kit	P32KA00PH	
P31 P32 / P33	Fill Plug Kit	P31KB00RQ P32KA00PL	
P31 P32 P33	Lubricator - Plastic Bowl w/ Bowl Guard No Drain	P31KB00BGN P32KB00BGN P33KA00BGN	

Series	Description	Part number	
P31 P32 P33	Lubricator - Metal Bowl w/o Sight Gauge No Drain	<b>P31KB00BMN P32KB00BMN P33KA00BMN</b>	
P32 P33	Lubricator - Metal Bowl w/ Sight Gauge No Drain	<b>P32KB00BSN P33KA00BSN</b>	
P31 P32 P33	Metal Bowl w/o Sight Gauge & Manual Drain	<b>P31KB00BMM P32KB00BMM P33KA00BMM</b>	
P31	Metal Bowl w/o Sight Gauge & Pulse Drain	<b>P31KB00BMB</b>	
P32 P33	Metal Bowl w/o Sight Gauge & Auto Drain	<b>P32KB00BMA P33KA00BMA</b>	
P32 P33	Metal Bowl w/ Sight Gauge & Manual Drain	<b>P32KB00BSM P33KA00BSM</b>	
P32 P33	Metal Bowl w/ Sight Gauge & Auto Drain	<b>P32KB00BSA P33KA00BSA</b>	
P31 P32 P33	Plastic Bowl w/ Bowl Guard & Manual Drain	<b>P31KB00BGM P32KB00BGM P33KA00BGM</b>	
P31	Plastic Bowl w/ Bowl Guard & Pulse Drain	<b>P31KB00BGB</b>	
P32 P33	Plastic Bowl w/ Bowl Guard & Auto Drain	<b>P32KB00BGA P33KA00BGA</b>	

Series	Description	Connection	Part number
P31	Square Flush Mounting Gauge Kit	0-4 bar 0-11 bar 0-60 psig 0-160 psig	<b>K4511SCR04B</b> <b>K4511SCR11B</b> <b>K4511SCR060</b> <b>K4511SCR160</b>
			
P31	Square Mounting Gauge with Adapter Kit	0-4 bar 0-11 bar 0-60 psig 0-160 psig	<b>P6G-PR11040</b> <b>P6G-PR11110</b> <b>P6G-PR90060</b> <b>P6G-PR90160</b>
P31	40mm Round Gauge	0-30 psig / 0-2 bar 1/8" 0-60 psig / 0-4.1 bar 1/8" 0-160 psig / 0-10 bar 1/8"	<b>P3D-KAB1AYN</b> <b>P3D-KAB1ALN</b> <b>P3D-KAB1ANN</b>
			
P32 / P33	40mm Round Gauge	0-60 psig / 0-4.1 bar 1/4" 0-160 psig / 0-10 bar 1/4" 0-300 psig / 0-20 bar 1/4"	<b>P6G-ERB2040</b> <b>P6G-ERB2110</b> <b>P6G-ERB2200</b>
			
P31 P32 / P33	Body Connector O-ring (Replacement kit) (Pack of 10)		<b>P31KA00CY</b> <b>P32KA00CY</b>
			
P31 P32	Tamperproof Knob Kit		<b>P31KB00AT</b> <b>P32KB00AT</b>
			
P31 P32	Tamperproof Lockable Kit		<b>P31KB00AL</b> <b>P32KB00AL</b>
			

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