



Air Preparation & Airline Accessories



Parker Global Air Preparation System

Global.
Economical.
Modular.



*Performance you need,
wherever you need it.*

The comprehensive Global Air Preparation System is available in three body sizes with either BSPP or NPT to accommodate thread type requirements.

Full featured filters, regulators, filter/regulators, and lubricators are available with a wide range of standard options to meet air preparation needs.

Individual units can easily be assembled into various combinations, utilizing patented modular lightweight body connectors.

www.parker.com/globalfrl

Validated for transport applications



CEI/ICE 61373 1999-1 Category 2 (BS EN 61373:1999)

As you would expect from a member of the Rail Industry Association, the Global FRL meets the test specification standards enabling the Global FRL to be used as a validated product in a variety of rail applications.



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
Moduflex 1																
Isys Micro																
HB / Viking Xtreme																
Moduflex 2																
HA / Global ISO																
See Larger Parker FRL Offering																

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

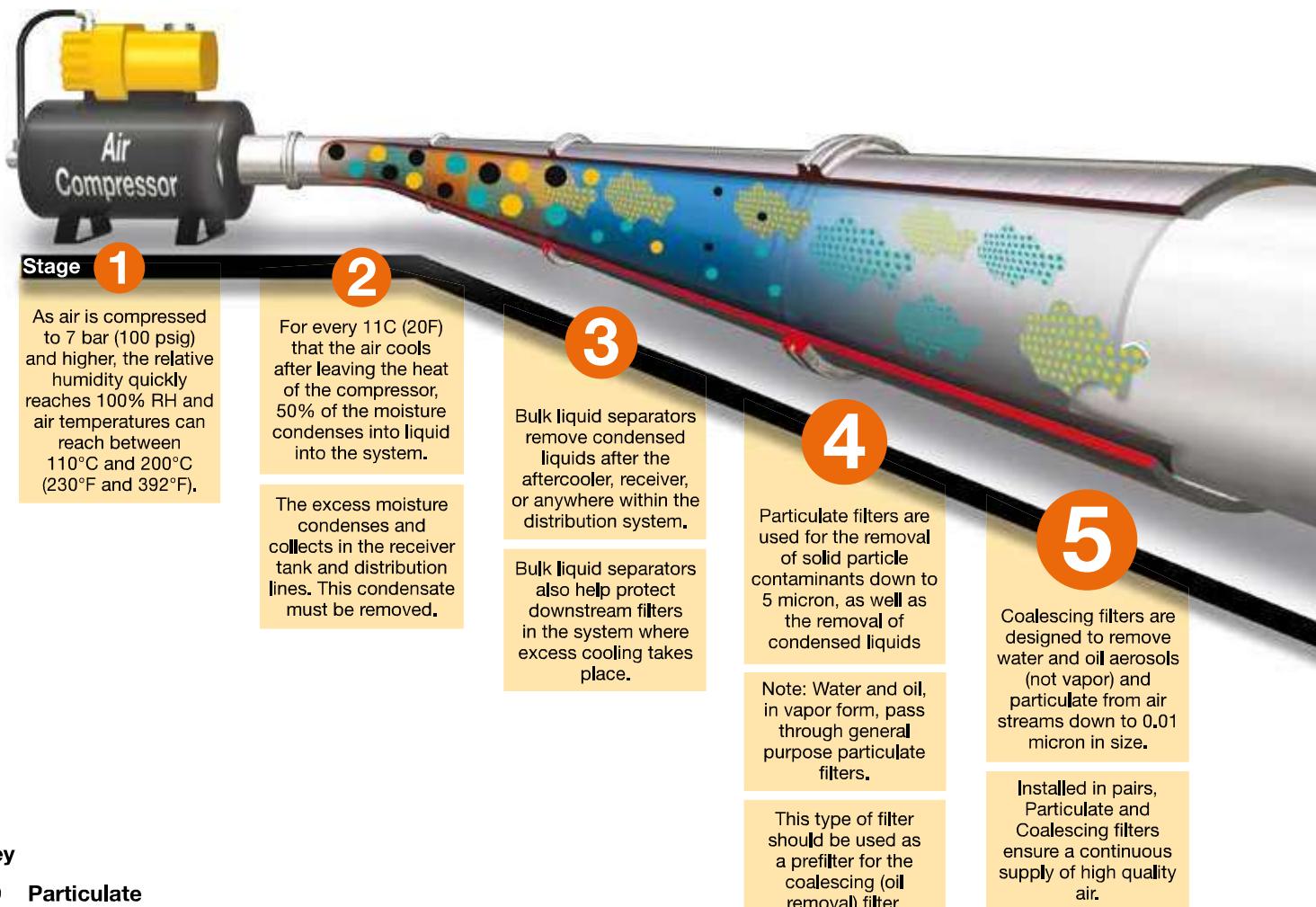
Cyl Ø mm Cyl Ø inches		Cylinder bore size														
		5 (5/16)	10 (7/16)	16 (9/16)	20 (3/4)	25 (1)	28 (1-1/8)	32 (1-1/4)	40 (1-1/2)	45 (1-3/4)	50 (2)	63 (2-1/2)	75 (3)	80 (3-1/4)	100 (4)	
Tube Ø mm Tube Ø inches		Tube diameter external														
		4 (5/32)	4 (5/32)	4 (5/32)	6 (1/4)	6 (1/4)	6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

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

Together we can power your application with clean, dry air

Fast cycle times, high product quality, and low downtime all require a clean, dry pneumatic system to function properly. Parker has what it takes to make sure pneumatic systems perform at their best.

Clean, dry pneumatic systems with Parker Global Air Preparation



Key

- Particulate
- Oil
- Water
- Oil Vapor
- Water Vapor



Stages	1 2	3	4	5	6	7
Function	Air Compressor	Bulk Liquid Removal	Particulate Filtration	Coalescing Filtration	Air Dryers	Hydrocarbon Removal
Application	All pneumatic systems	Basic pneumatic systems	Basic pneumatic systems	Systems requiring highest quality air.	Systems requiring air with reduced moisture content	Systems requiring highest quality air for critical applications
Description	Air leaving the compressor room at 93°C (200°F) releases 95% of its moisture into the piping system when it cools to 38°C (100°F)	Removes bulk liquid contamination and protects filters where excess cooling takes place in the distribution piping	Removes solid particulates down to 5 micron, and the separation of bulk contaminants.	Removes liquid aerosols and submicron particulates (not vapor) down to 0.01 micron.	Removes water vapor from air stream. Dew point reduced down to -40°C membrane and -70°C desiccant.	Removal of odors and trace vapors for critical applications.
Parker Global Air Preparation Solution	Customer supplied	P3TF Bulk Liquid Separator	P31, P32, P33 Particulate Filter	P31, P32, P33 Coalescing Filter	P3XJ Membrane Dryer P3TJ Regenerative Desiccant Dryer	P31, P32, P33 Activated Carbon (Adsorber) Filter

Clean Dry Air

6

Refrigeration, membrane and desiccant dryers lower the air's dew point by removing water vapor, providing appropriately dry air for the downstream application.

7

Hydrocarbon and oil vapors are removed using filters utilizing activated carbon. These airborne hydrocarbons are often left over from the compressor oils.



DECLARATION



We Parker Hannifin Manufacturing
Austria GmbH
 Badener Straße 12
 2700 Wiener Neustadt
 Austria

Product	Series	Category
Filter*	P31FB, P32FB, P33FA	for zone 1, 21
Regulator	P31RB, P32RB, P33RA	for zone 1, 21
Filter regulator*	P31EB, P32EB, P33EA	for zone 1, 21
Lubricator*	P31LB, P32LB, P33LA	for zone 1, 21
Ball Valve & Slide Valve	P31VB, P32VB, P33VB	for zone 1, 21
Manifold	P31MA, P32MA, P33MA	for zone 1, 21

For non-fitted solenoid product

Soft start & Dump Valve	P31TA, P32TA	for zone 1, 21
Soft Start Valve	P31SA, P32SA	for zone 1, 21
Dump Valve	P31DA, P32DA	for zone 1, 21

*Filter, Filter Regulator and Lubricator – This evaluation applies to products fitted with metal bowls only.

Following Ignition Hazard Assessments performed on the non-electrical products listed above, in accordance with the requirements of EN 13463-1:2009, it was considered that the equipment does not contain its own source of ignition, and therefore is not within the scope of directive 94/9/EC.

The products can be used in a Group II Category 2 environment assuming that the ATEX Directive and the following conditions are complied with:

- Installation and maintenance of the product must be undertaken by qualified personnel.
- Do not mount the products in an area where impact may occur.
- Filters must be used to limit the introduction of particles and to capture particles generated in service.
- Supply air quality must be within ISO 8573-1:2010 Class 1.4.2.
- Maximum working temperature to be as stated on product label.
- WARNING – pulsating pressure and/or a closed circuit can generate heat.
- Deposits of dust on the product must not exceed 5mm thickness.
 Refer to technical file for surface areas of plastics.
 The unit must be earthed via the compressed air supply line.
- The unit must not come into contact with liquid solvents, acids or alkalis
 Refer to technical file for chemicals known to be incompatible.
 Product cleaning must be undertaken using a method complying with the specifications of the ATEX zone, preferably by using mild soap and water or antistatic products.
- **Regulators, Filter Regulators:**
 Do not use Regulators or Filter Regulators within systems that can create vibration within the Regulator/Filter Regulator unit.
- **Solenoid Operated Valves:**
 Are suitable for use in an ATEX environment, (Group II Category 2) providing ATEX approved solenoids are fitted.
- Technical file available on request.

Approved by:

A handwritten signature in black ink, appearing to read 'E. Baumgaertner'.

Engineering Manager – Air Preparation EMEA

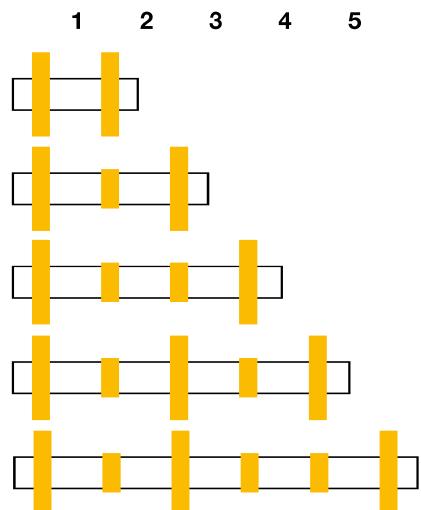
Validated for transport applications



As you would expect from a member of the Rail Industry Association, Global air preparation meets the test specification standards enabling the Global series to be used as a validated product in a variety of rail applications.



Position of T-Brackets for multiple units



CEI/ICE 61373 1999-1 Category 2 (BS EN 61373:1999)

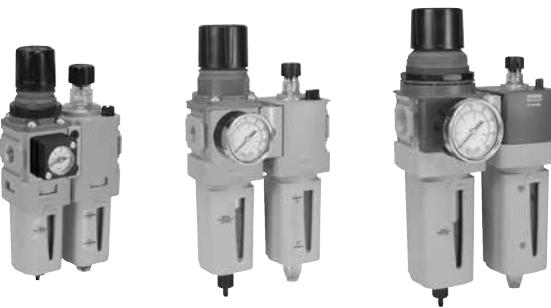
Recommended mounting / fixation method for use in transportation applications.

- The use of a port block kit and T-bracket should be used at all times (angle / L-brackets should not be used in rail applications)
- Additional security is recommended with the use of 'vibration proof adhesive' on the wall mounting screws to the port / connector block
- Inlet (P1) and Outlet (P2) ports should always have a T-Bracket fixation to eliminate product cantilever stress
- 'L' brackets should not be used in the use for rail service



For illustration purposes only

- High flow modular air-preparation series
- Space saving integral gauge (P31 size only)
- Manifold style regulators available
- OSHA compliant shut-off valves



Operating information

Working pressure :

Plastic bowl: 10 bar max

Metal bowl: 17 bar max

Working temperature :

* Plastic bowl: -10°C to +52°C

* Metal bowl: -10°C to +65.5°C

* Refer to Technical Catalogue for individual unit temperatures

Flow characteristics

40mm body width

1/4" Ported

Flow **dm³/s**

Filter 12

Coalescing Filter 3,6

Regulator 32

Filter Regulator 35

Lubricator 19

60mm body width

1/4", 3/8", & 1/2" Ported

Flow **dm³/s**

Filter 39

Coalescing Filter 17

Regulator 78

Filter Regulator 64

Lubricator 42

73mm body width

1/2" & 3/4" Ported

Flow **dm³/s**

Filter 40

Coalescing Filter 34

Regulator 111

Filter Regulator 108

Lubricator 71

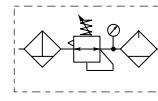
Popular Combinations - P31 Series



Filter + Regulator + Lubricator Combinations + Poly bowl

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.



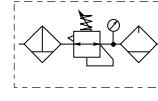
Port size	Flow dm ³ /s (scfm)	Manual Drain	Weight	Pulse Drain	Weight	
1/4"	13	27	P31CB12GEMNTLNW	0.46 kg	P31CB12GEBNTLNW	0.46 kg



Filter/Regulator + Lubricator Combinations + Poly bowl

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.



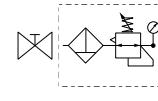
Port size	Flow dm ³ /s (scfm)	Manual Drain	Weight	Pulse Drain	Weight	
1/4"	14	28	P31CA12GEMNTLNW	0.35 kg	P31CA12GEBNTLNW	0.35 kg



Ball Valve + Filter/Regulator Combinations + Poly bowl

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.



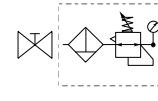
Port size	Flow dm ³ /s (scfm)	Manual Drain	Weight	Pulse Drain	Weight	
1/4"	14	28	P31QA12GEMNTLNW	0.54 kg	P31QA12GEBNTLNW	0.54 kg



Ball Valve + Filter/Regulator Combinations + Poly bowl

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.



Port size	Flow dm ³ /s (scfm)	Manual Drain	Weight	Pulse Drain	Weight	
1/4"	14	28	P31QN12GEMNTW	0.4 kg	P31QN12GEBNTW	0.4 kg

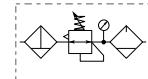
P 3 1	<input type="checkbox"/>											
Combination												
Combination	C											
Shut off + Combi ¹	Q											
Combination type												
F/R+L	A											
F+R+L	B											
F/R	N											
Thread type												
BSPP	1											
NPT	9											
Port size												
1/4	2											
Drain type												
Manual drain	M											
Pulse drain	B											
E												
N												
Adjustment range												
With square gauge												
2 bar *	V											
4 bar	S											
8 bar **	T											
L N												
W												
Add only for options with Lubricator												

* Unit comes with 0-4 bar, gauge respectively

** Unit comes with 0-10 bar, gauge respectively

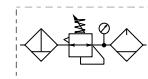
¹ Option not available with F+R+L

Popular Combinations - P32 Series



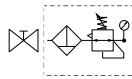
Filter + Regulator + Lubricator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Flow (scfm)	Manual Drain	Weight	Auto Drain	Weight
1/4"	20	42	P32CB12GEMNGLNW	1.29 kg	P32CB12GEANGLNW	1.29 kg
3/8"	32	68	P32CB13GEMNGLNW	1.29 kg	P32CB13GEANGLNW	1.29 kg
1/2"	40	85	P32CB14GEMNGLNW	1.29 kg	P32CB14GEANGLNW	1.29 kg



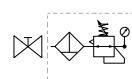
Filter/Regulator + Lubricator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Flow (scfm)	Manual Drain	Weight	Auto Drain	Weight
1/4"	22	45	P32CA12GEMNGLNW	1.03 kg	P32CA12GEANGLNW	1.03 kg
3/8"	33	70	P32CA13GEMNGLNW	1.03 kg	P32CA13GEANGLNW	1.03 kg
1/2"	43	90	P32CA14GEMNGLNW	1.03 kg	P32CA14GEANGLNW	1.03 kg



Ball Valve + Filter/Regulator + Lubricator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Flow (scfm)	Manual Drain	Weight	Auto Drain	Weight
3/8"	33	70	P32QA13GEMNGLNW	1.5 kg	P32QA13GEANGLNW	1.5 kg
1/2"	43	90	P32QA14GEMNGLNW	1.5 kg	P32QA14GEANGLNW	1.5 kg



Ball Valve + Filter/Regulator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Flow (scfm)	Manual Drain	Weight	Auto Drain	Weight
3/8"	33	70	P32QN13GEMNGW	1.1 kg	P32QN13GEANGW	1.1 kg
1/2"	43	90	P32QN14GEMNGW	1.1 kg	P32QN14GEANGW	1.1 kg

P 3 2						
Combination						
Combination	C					
Shut off + Combination ¹	Q					
Thread type						
BSPP	1					
NPT	9					
Port size						
1/4	2					
3/8	3					
1/2	4					
E						
Drain type						
Auto drain	A					
Manual drain	M					
N						
Adjustment range						
With round gauge						
0-2 bar; 0-30 psi; 0,2 MPa	Z					
4 bar; 60 psi; 0.4 MPa	M					
8 bar; 125 psi; 0.8 MPa	G					
L N						
Add only for options with Lubricator						
W						

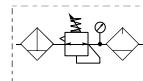
¹ Option not available with F+R+L and 1/4" port size (2)

Combination type		Bowl type	
F/R+L	A	Poly bowl with bowl guard	G
F+R+L	B	Metal bowl with sight glass	S
F/R	N		

Note: All bowl types are the same for each component

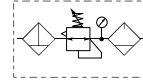
Example: If a "G" is specified for a F+L, both units would get a poly bowl with bowl guard.

Popular Combinations - P33 Series



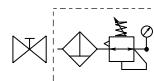
Filter + Regulator + Lubricator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Manual Drain	Weight	Auto Drain	Weight	
1/2"	43	90	P33CB14GEMNGLNW	1.84 kg (4.06 lbs)	P33CB14GEANGLNW	1.84 kg (4.06 lbs)
3/4"	52	110	P33CB16GEMNGLNW	1.84 kg (4.06 lbs)	P33CB16GEANGLNW	1.84 kg (4.06 lbs)



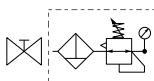
Filter/Regulator + Lubricator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Manual Drain	Weight	Auto Drain	Weight	
1/2"	52	110	P33CA14GEMNGLNW	1.51 kg (3.33 lbs)	P33CA14GEANGLNW	1.51 kg (3.33 lbs)
3/4"	71	150	P33CA16GEMNGLNW	1.51 kg (3.33 lbs)	P33CA16GEANGLNW	1.51 kg (3.33 lbs)



Ball Valve + Filter/Regulator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

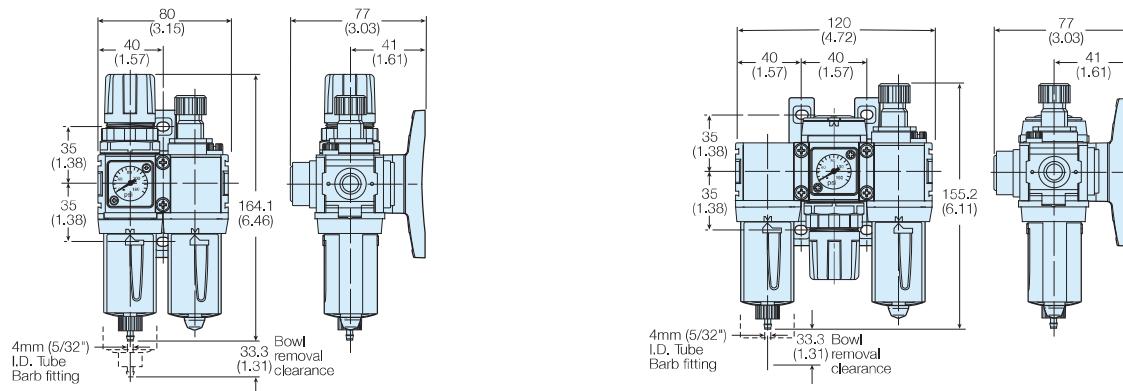
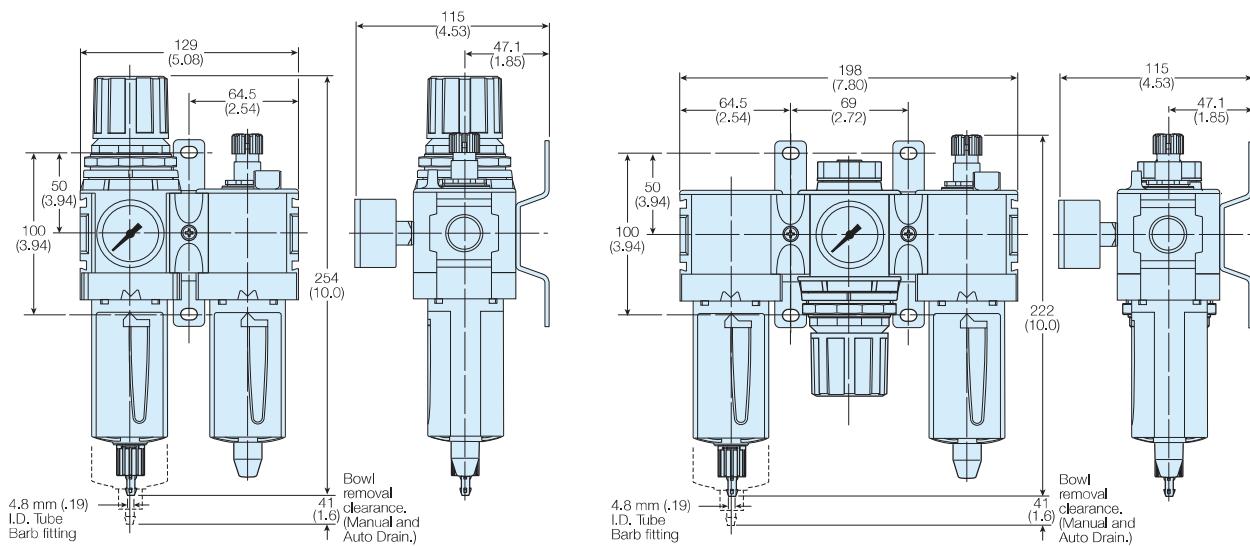
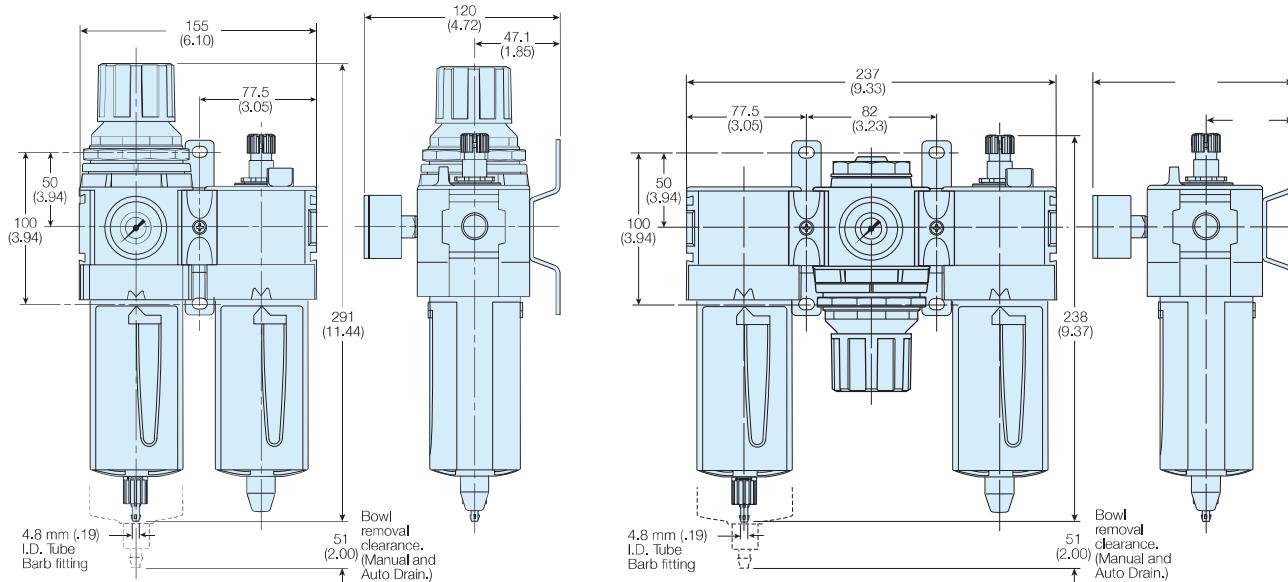
Port size	Flow dm ³ /s	Manual Drain	Weight	Auto Drain	Weight	
1/2"	52	110	P33QA14GEMNGLNW	2.35 kg (5.2 lbs)	P33QA14GEANGLNW	2.35 kg (5.2 lbs)
3/4"	71	150	P33QA16GEMNGLNW	2.35 kg (5.2 lbs)	P33QA16GEANGLNW	2.35 kg (5.2 lbs)



Ball Valve + Filter/Regulator Combinations + Poly bowl
5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets
Inlet pressure 10 bar, Secondary pressure 6.3 bar, 1 bar pressure drop.

Port size	Flow dm ³ /s	Manual Drain	Weight	Auto Drain	Weight	
1/2"	52	110	P33QN14GEMNGW	1.7 kg (3.75 lbs)	P33QN14GEANGW	1.7 kg (3.75 lbs)
3/4"	71	150	P33QN16GEMNGW	1.7 kg (3.75 lbs)	P33QN16GEANGW	1.7 kg (3.75 lbs)

P 33						
Combination		Thread type		Port size		Drain type
Combination	C	BSPP	1	1/2	4	Auto drain A
Shut off + Combination ¹	Q	NPT	9	3/4	6	Manual drain M
Combination type		Bowl type			Adjustment range	
F/R+L	A	Poly bowl with bowl guard	G		With round gauge	
F+R+L	B	Metal bowl with sight glass	S		0-2 bar; 0-30 psi; 0.2 MPa	Z
F/R	N				4 bar; 60 psi; 0.4 MPa	M
					8 bar; 125 psi; 0.8 MPa	G
¹ Option not available with F+R+L						
Note: All bowl types are the same for each component						
Example: If a "G" is specified for a F+L, both units would get a poly bowl with bowl guard.						
L N W Add only for options with Lubricator						

Popular Combination Dimensions - mm (inches)**P31****P32****P33**

**Filters - 5 µm**

Port	Description	Order code
1/4"	Poly bowl - Manual drain	P31FB12EGMN
1/4"	Poly bowl - Pulse drain	P31FB12EGBN
1/4"	Metal bowl - Manual drain	P31FB12EMMN
1/4"	Metal bowl - Pulse drain	P31FB12EMBN
1/4"	Poly bowl - Manual drain	P32FB12EGMN
1/4"	Poly bowl - Auto drain	P32FB12EGAN
1/4"	Metal bowl sight glass - Manual drain	P32FB12ESMN
1/4"	Metal bowl sight glass - Auto drain	P32FB12ESAN
3/8"	Poly bowl - Manual drain	P32FB13EGMN
3/8"	Poly bowl - Auto drain	P32FB13EGAN
3/8"	Metal bowl sight glass - Manual drain	P32FB13ESMN
3/8"	Metal bowl sight glass - Auto drain	P32FB13ESAN
1/2"	Poly bowl - Manual drain	P32FB14EGMN
1/2"	Poly bowl - Auto drain	P32FB14EGAN
1/2"	Metal bowl sight glass - Manual drain	P32FB14ESMN
1/2"	Metal bowl sight glass - Auto drain	P32FB14ESAN
1/2"	Poly bowl - Manual drain	P33FA14EGMN
1/2"	Poly bowl - Auto drain	P33FA14EGAN
1/2"	Metal bowl sight glass - Manual drain	P33FA14ESMN
1/2"	Metal bowl sight glass - Auto drain	P33FA14ESAN
3/4"	Poly bowl - Manual drain	P33FA16EGMN
3/4"	Poly bowl - Auto drain	P33FA16EGAN
3/4"	Metal bowl sight glass - Manual drain	P33FA16ESMN
3/4"	Metal bowl sight glass - Auto drain	P33FA16ESAN

**Coalescing Filters + Absorbers - 0,01 µm**

Port	Description	Order code
1/4"	Poly bowl - 0,01 µ - Manual drain	P31FB12DGMN
1/4"	Poly bowl - 0,01 µ - Pulse drain	P31FB12DGBN
1/4"	Metal bowl - 0,01 µ - Manual drain	P31FB12DMMN
1/4"	Metal bowl - 0,01 µ - Pulse drain	P31FB12DMBN
1/4"	Poly bowl - Adsorber	P31FB12AGMN
1/4"	Metal bowl - Adsorber	P31FB12AMMN
1/4"	Poly bowl - 0,01 µ, Manual drain	P32FB12DGMN
1/4"	Poly bowl - 0,01 µ, Auto drain	P32FB12DGAN
1/4"	Metal bowl sight glass - 0,01 µ, Man. drain	P32FB12DSMN
1/4"	Metal bowl sight glass - 0,01 µ, Auto drain	P32FB12DSAN
3/8"	Poly bowl - 0,01 µ, Manual drain	P32FB13DGMN
3/8"	Poly bowl - 0,01 µ, Auto drain	P32FB13DGAN
3/8"	Metal bowl sight glass - 0,01 µ, Man. drain	P32FB13DSMN
3/8"	Metal bowl sight glass - 0,01 µ, Auto drain	P32FB13DSAN
1/2"	Poly bowl - 0,01 µ, Manual drain	P32FB14DGMN
1/2"	Poly bowl - 0,01 µ, Auto drain	P32FB14DGAN
1/2"	Metal bowl sight glass - 0,01 µ, Man. drain	P32FB14DSMN
1/2"	Metal bowl sight glass - 0,01 µ, Auto drain	P32FB14DSAN
1/4"	Poly bowl - Adsorber	P32FB12AGMN
1/4"	Metal bowl sight glass - Adsorber	P32FB12ASMN
3/8"	Poly bowl - Adsorber	P32FB13AGMN
3/8"	Metal bowl sight glass - Adsorber	P32FB13ASMN
1/2"	Poly bowl - Adsorber	P32FB14AGMN
1/2"	Metal bowl sight glass - Adsorber	P32FB14ASMN
1/2"	Poly bowl - 0,01 µ, Manual drain	P33FA14DGMN
1/2"	Poly bowl - 0,01 µ, Auto drain	P33FA14DGAN
1/2"	Metal bowl sight glass - 0,01 µ, Man. drain	P33FA14DSMN
1/2"	Metal bowl sight glass - 0,01 µ, Auto drain	P33FA14DSAN
3/4"	Poly bowl - 0,01 µ, Manual drain	P33FA16DGMN
3/4"	Poly bowl - 0,01 µ, Auto drain	P33FA16DGAN
3/4"	Metal bowl sight glass - 0,01 µ, Man. drain	P33FA16DSMN
3/4"	Metal bowl sight glass - 0,01 µ, Auto drain	P33FA16DSAN
1/2"	Poly bowl - Adsorber	P33FA14AGMN
1/2"	Metal bowl sight glass - Adsorber	P33FA14ASMN
3/4"	Poly bowl - Adsorber	P33FA16AGMN
3/4"	Metal bowl sight glass - Adsorber	P33FA16ASMN

**Regulators**

Port	Description	Order code
1/4"	8 bar relieving	P31RB12BNNP
1/4"	8 bar relieving + gauge	P31RB12BNTP
1/4"	8 bar (125 psi) Relieving	P32RB12BNNP
1/4"	8 bar (125 psi) Relieving + Gauge	P32RB12BNGP
3/8"	8 bar (125 psi) Relieving	P32RB13BNNP
3/8"	8 bar (125 psi) Relieving + Gauge	P32RB13BNGP
1/2"	8 bar (125 psi) Relieving	P32RB14BNNP
1/2"	8 bar (125 psi) Relieving + Gauge	P32RB14BNGP
1/2"	8 bar (125 psi) Relieving	P33RA14BNNP
1/2"	8 bar (125 psi) Relieving + Gauge	P33RA14BNGP
3/4"	8 bar (125 psi) Relieving	P33RA16BNNP
3/4"	8 bar (125 psi) Relieving + Gauge	P33RA16BNGP



Filter Regulators - (P31) pressures 2 & 4 bar (P32/P33) pressures 2,4 & 17 bar available.

Port	Description	Order code
1/4"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P31EB12EGMBNTP
1/4"	8 bar (125 psi) Relieving - Poly bowl - Pulse drain	P31EB12EGBBNTP
1/4"	8 bar (125 psi) Relieving - Metal bowl - Manual drain	P31EB12EMMBNTP
1/4"	8 bar (125 psi) Relieving - Metal bowl - Pulse drain	P31EB12EMBBNTP
1/4"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P32EB12EGMBNGP
1/4"	8 bar (125 psi) Relieving - Poly bowl - Auto drain	P32EB12EGABNGP
1/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EB12ESMBNGP
1/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EB12ESABNGP
3/8"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P32EB13EGMBNGP
3/8"	8 bar (125 psi) Relieving - Poly bowl - Auto drain	P32EB13EGABNGP
3/8"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EB13ESMBNGP
3/8"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EB13ESABNGP
1/2"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P32EB14EGMBNGP
1/2"	8 bar (125 psi) Relieving - Poly bowl - Auto drain	P32EB14EGABNGP
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P32EB14ESMBNGP
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P32EB14ESABNGP
1/2"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P33EA14EGMBNGP
1/2"	8 bar (125 psi) Relieving - Poly bowl - Auto drain	P33EA14EGABNGP
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P33EA14ESMBNGP
1/2"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P33EA14ESABNGP
3/4"	8 bar (125 psi) Relieving - Poly bowl - Manual drain	P33EA16EGMBNGP
3/4"	8 bar (125 psi) Relieving - Poly bowl - Auto drain	P33EA16EGABNGP
3/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain	P33EA16ESMBNGP
3/4"	8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain	P33EA16ESABNGP



Lubricators

Port	Description	Order code
1/4"	Poly bowl - No drain	P31LB12LGNN
1/4"	Metal bowl - No drain	P31LB12LMNN
1/4"	Poly bowl - No drain	P32LB12LGNN
1/4"	Metal bowl - No drain	P32LB12LSNN
3/8"	Poly bowl - No drain	P32LB13LGNN
3/8"	Metal bowl - No drain	P32LB13LSNN
1/2"	Poly bowl - No drain	P32LB14LGNN
1/2"	Metal bowl - No drain	P32LB14LSNN
1/2"	Poly bowl - No drain	P33LA14LGNN
1/2"	Metal bowl - No drain	P33LA14LSNN
3/4"	Poly bowl - No drain	P33LA16LGNN
3/4"	Metal bowl - No drain	P33LA16LSNN



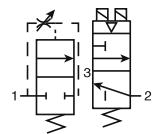
Gauges

Port	Description	Order code	
P31	Square Flush	0-4 bar	K4511SCR04B
	Mounting Gauge Kit	0-11 bar	K4511SCR11B
P31	40mm Round Gauge	0-30 psi / 0-2 bar	1/8" P3D-KAB1AYN
		0-60 psi / 0-4.1 bar	1/8" P3D-KAB1ALN
		0-160 psi / 0-10 bar	1/8" P3D-KAB1ANN
P32 / P33	40mm Round Gauge	0-60 psi / 0-4.1 bar	1/4" P6G-ERB2040
		0-160 psi / 0-10 bar	1/4" P6G-ERB2110
		0-300 psi / 0-20 bar	1/4" P6G-ERB2200

Redundant Safety Exhaust Valve

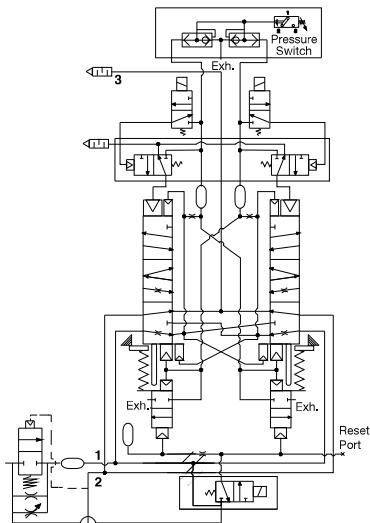


Symbol



- Proven control reliable technology with integrated soft start
- Soft start application of air to the system when energized; can be adjusted for slower or faster buildup of system pressure
- Rapid exhaust of downstream air when de-energized to remove stored energy and allow safe access
- Memory, monitoring, and air flow control functions are integrated into two identical valve elements. Valves lock-out if asynchronous movement of valve elements occurs during actuation or de-actuation, resulting in a residual outlet pressure of less than 1% of supply.
- Reset can only be accomplished by the integrated electrical (solenoid) reset. Cannot be reset by removing and re-applying supply pressure.
- Basic 3/2 normally closed valve function: Dirt tolerant, wear compensating poppet design for quick response and high flow capacity.
- LED indicators of main solenoid operation, reset solenoid operation, and status indicator condition.
- Optional transducer for monitoring of downstream pressure in the system.
- Dual exhaust silencers included.
- Not for use with clutch / brake applications.
- For use in conjunction with a safety relay or safety PLC.

P33T Schematic



Options:

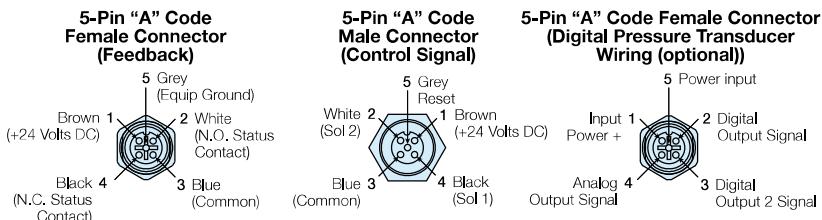
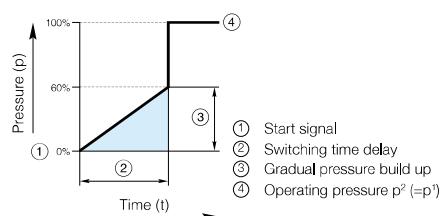
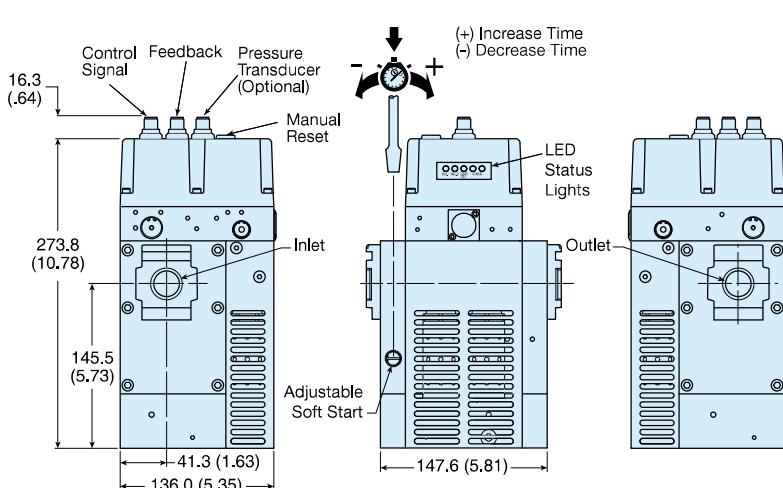
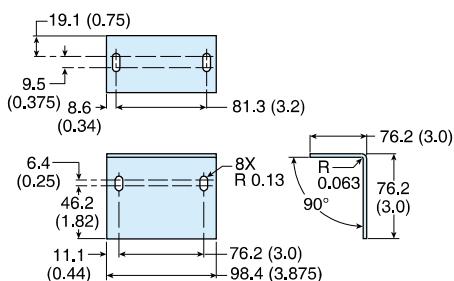
P33TA		6 R	G 4		2CN
Body size		Port size	Operator	Solenoid	Voltage
Standard	P33T	3/4"	15mm Solenoid	Dual M12 connector without transducer	24VDC with manual override
Thread type		Type	Mounting	F	2CN
BSPP	1	Solenoid pilot + gauge	Cat 4 w/ bracket	G	
NPT	9	R	4		

Port size			Cv		Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lb)	Part number*
Inlet	Outlet	Transducer	1 to 2	2 to 3					
3/4	3/4	w/o transducer	3.7	8.5	273.8 (10.78)	136.0 (5.35)	147.6 (5.81)	7.3 (16.1)	P33TA16RG4F2CN
3/4	3/4	w/ transducer	3.7	8.5	273.8 (10.78)	136.0 (5.35)	147.6 (5.81)	7.4 (16.3)	P33TA16RG4G2CN

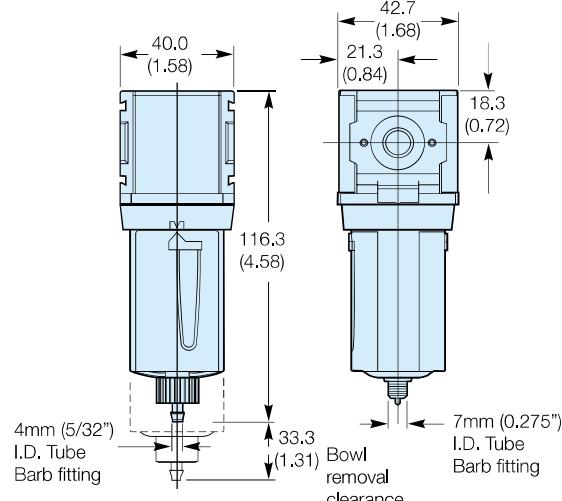
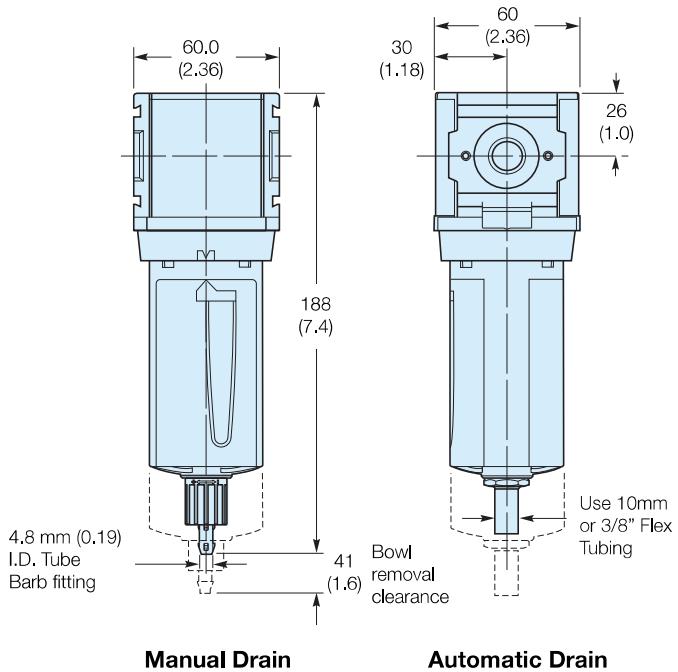
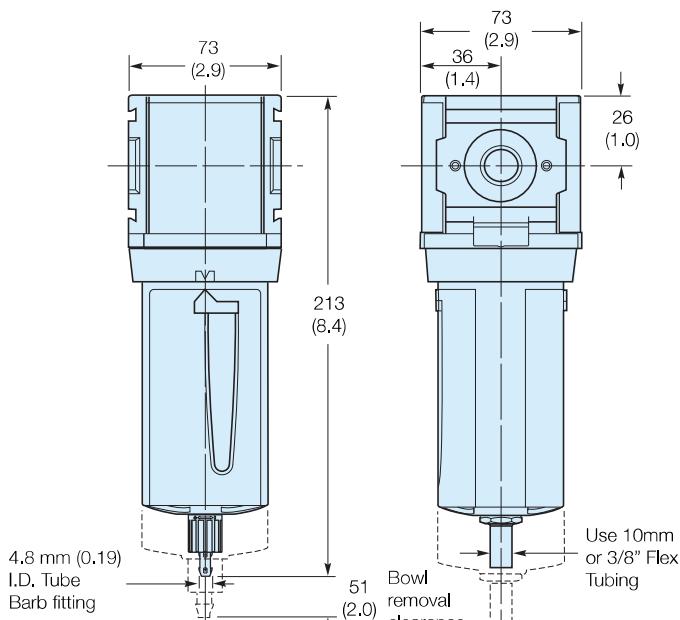
* BSPP port threads. For NPT threads, replace "1" in the part number with a "9".

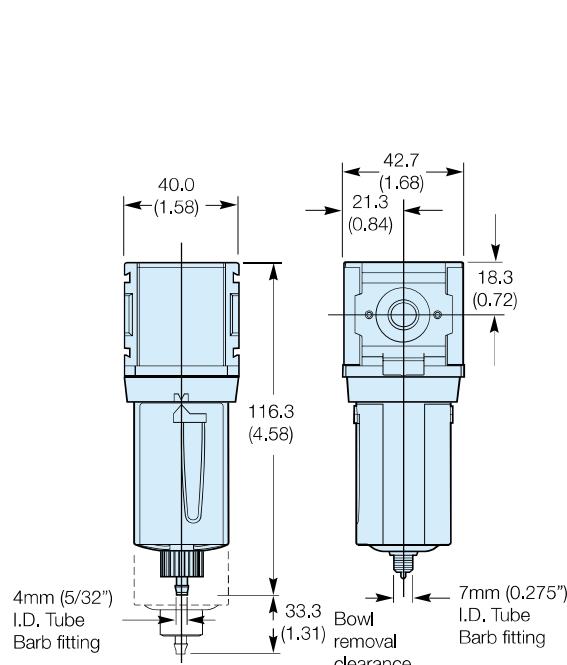
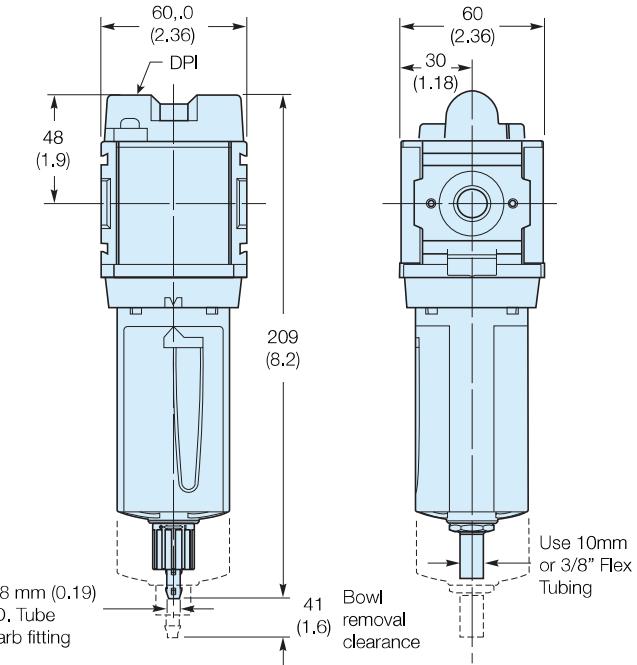
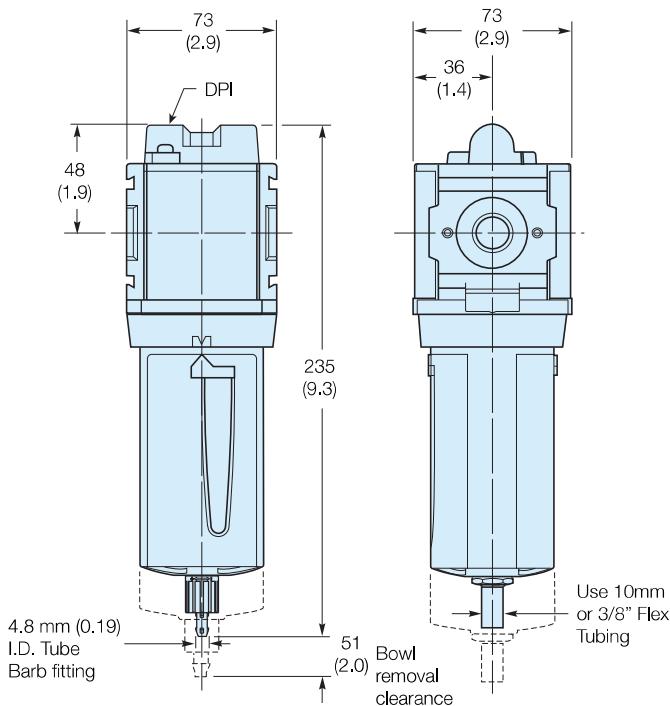
Technical Information

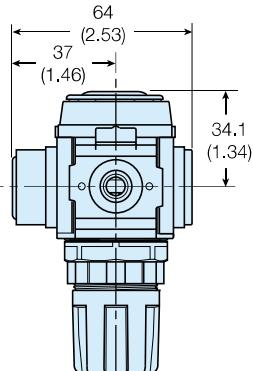
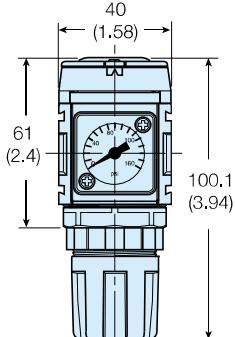
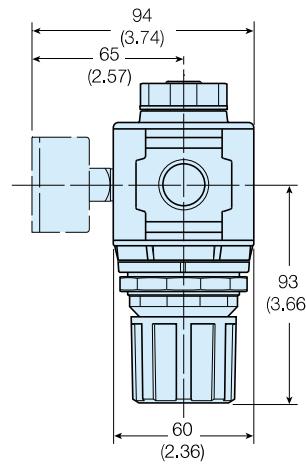
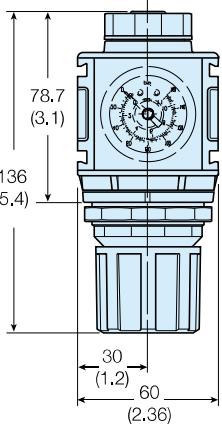
Pilot Solenoids:	According to VDE 0580
Enclosure rating:	According to DIN 400 50 IP65
Connector socket:	According to DIN 43650 Form A
	Three solenoids, rated for continuous duty
Standard voltages:	24VDC
Power consumption (each solenoid):	
for primary and reset solenoids:	1.2 Watts on DC
Enclosure rating:	IP65, IEC 60529
Electrical connection:	M12, 5-pin
Ambient temperature:	15°F to 122°F (-10°C to 50°C)
Media temperature:	40°F to 175°F (4°C to 80°C)
Flow media:	Compressed Air, Filtered to Minimum 40 Micron
Inlet pressure:	30 to 150 PSIG (2 to 10 bar)
Pressure switch rating (Status indicator):	5 Amps at 30 Volts DC.
Monitoring:	Dynamically, cyclically, internally during each actuating and de-actuating movement. Monitoring function has memory and requires an overt act to reset unit after lockout.
Mounting orientation:	Vertically with pilot solenoids on top
Port threads:	3/4 NPT, 3/4 BSPP
Control reliable:	Category 4 (Cat 4); performance Level e (PLe) in accordance with Machine directive - EN ISO 13849-1 (Certification pending)

Valve Wiring**Dimensions mm (inches)****Angle Mounting Bracket**

Note: Mounting bracket and installation screws included and required to install unit in the system.

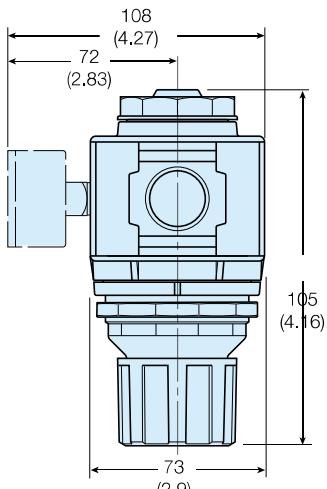
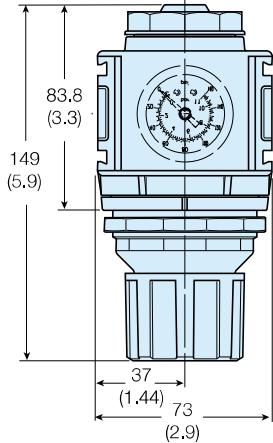
Filter Dimensions - mm (inches)**P31****P32****Manual Drain****Automatic Drain****P33****Manual Drain****Automatic Drain**

Coalescing / Adsorber Filter Dimensions - mm (inches)**P31****P32****Manual Drain****Automatic Drain****P33****Manual Drain****Automatic Drain**

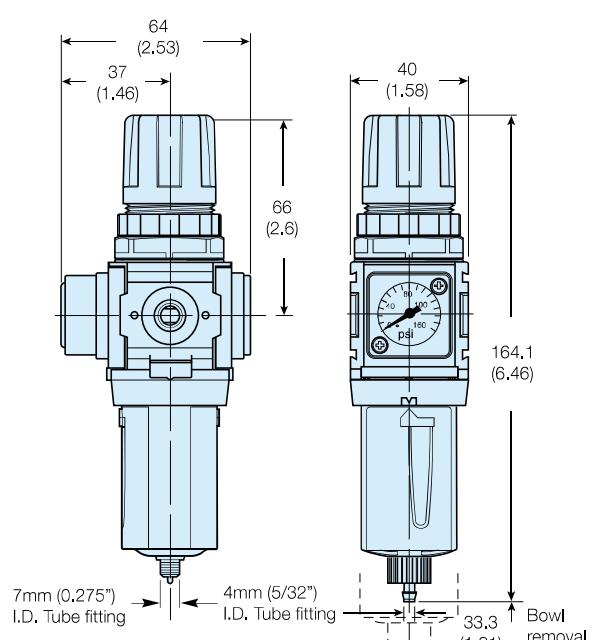
Regulator Dimensions - mm (inches)**P31****P32**

NOTE: Ø 30 mm hole required for panel nut mounting.

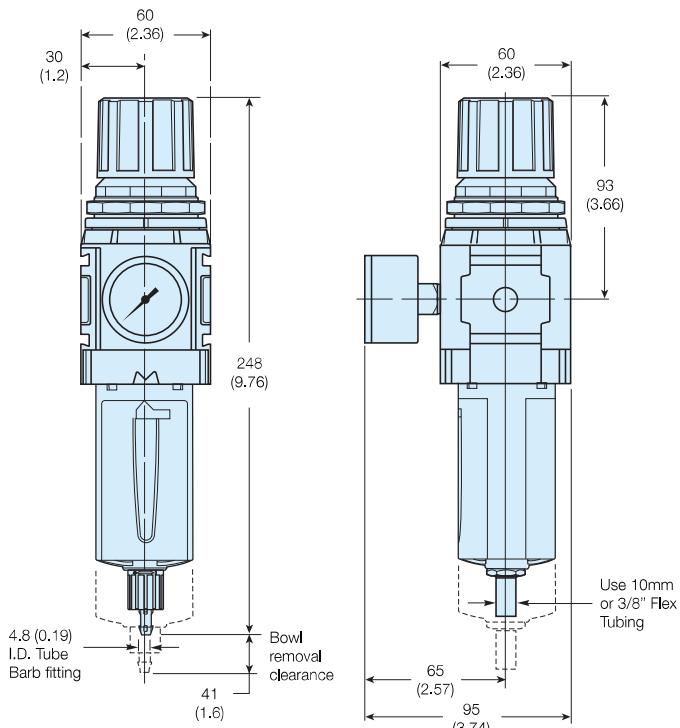
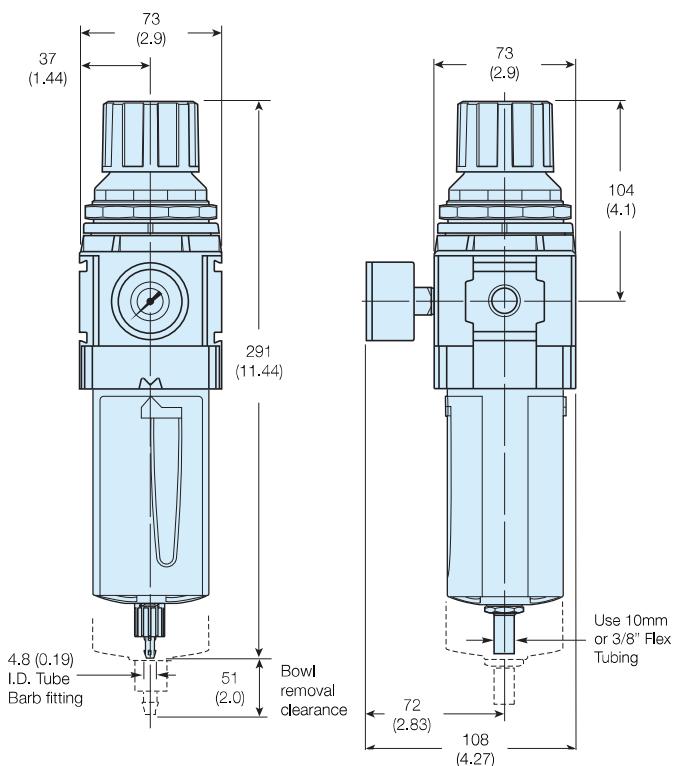
NOTE: Ø 47 mm hole required for panel nut mounting.

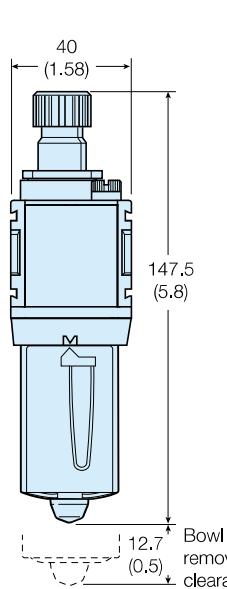
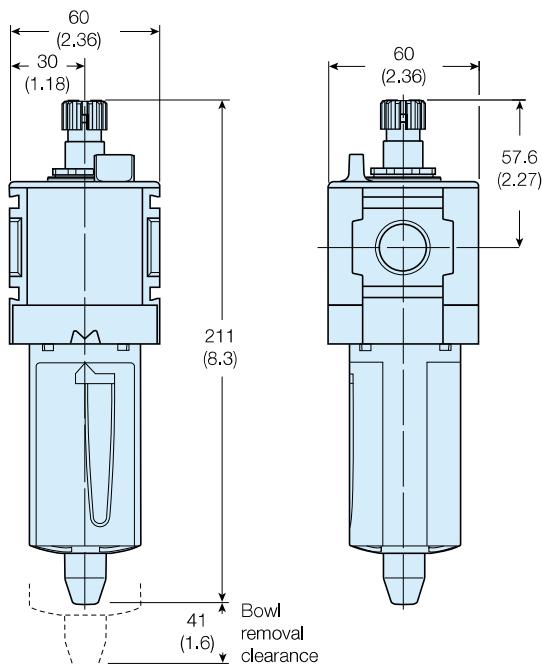
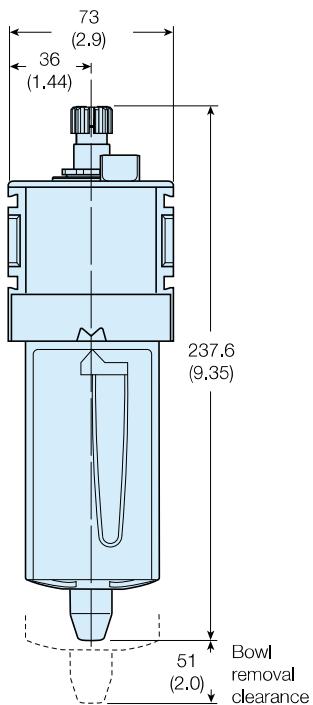
P33

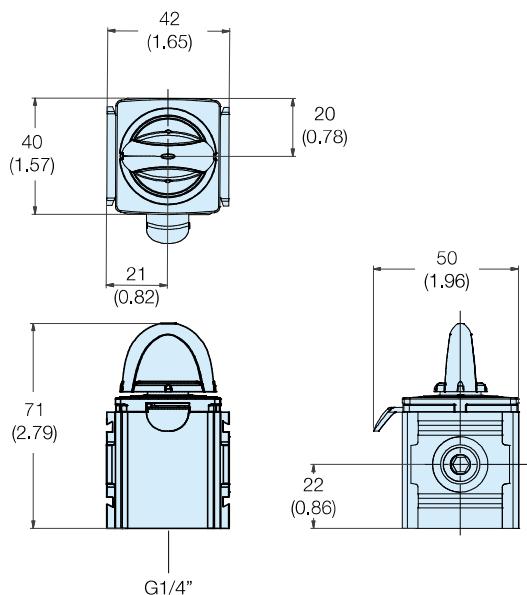
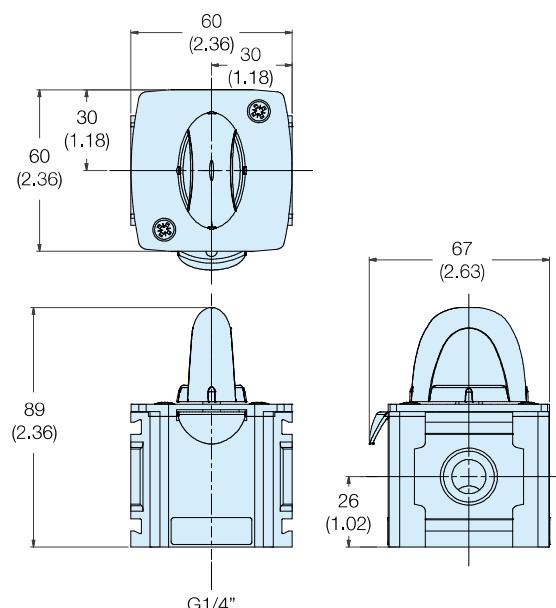
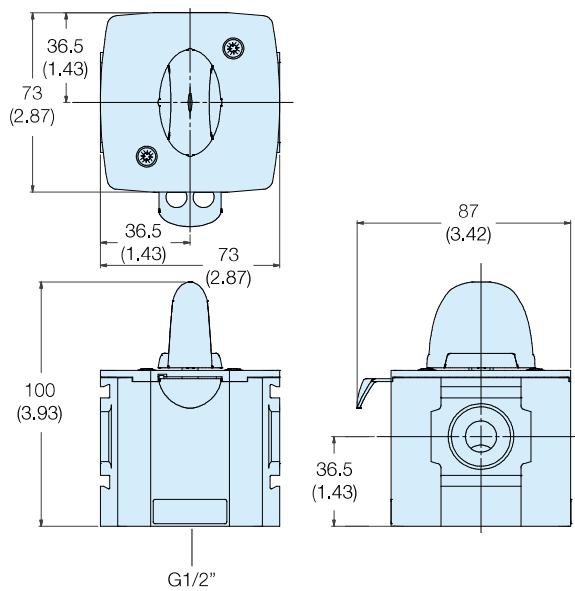
NOTE: Ø 60 mm hole required for panel nut mounting.

Filter Regulator Dimensions - mm (inches)**P31****Note:**

Flush-mounted gauge kits will not fit units originally purchased with threaded gauge ports.

P32**Manual Drain****Automatic Drain****P33****Manual Drain****Automatic Drain**

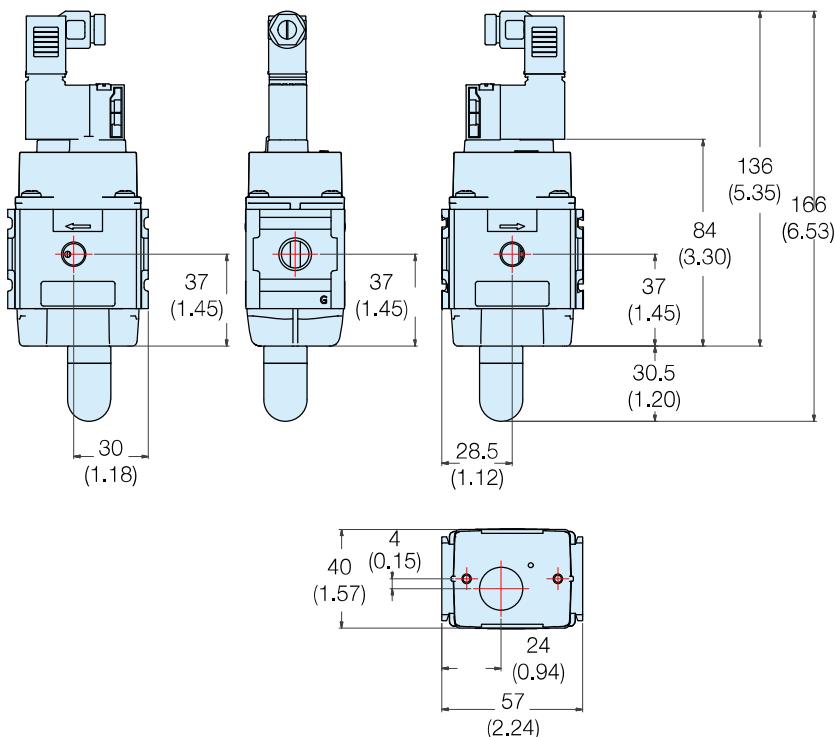
Lubricator Dimensions - mm (inches)**P31****P32****P33**

Modular Ball Valve Dimensions - mm (inches)**P31****P32****P33**

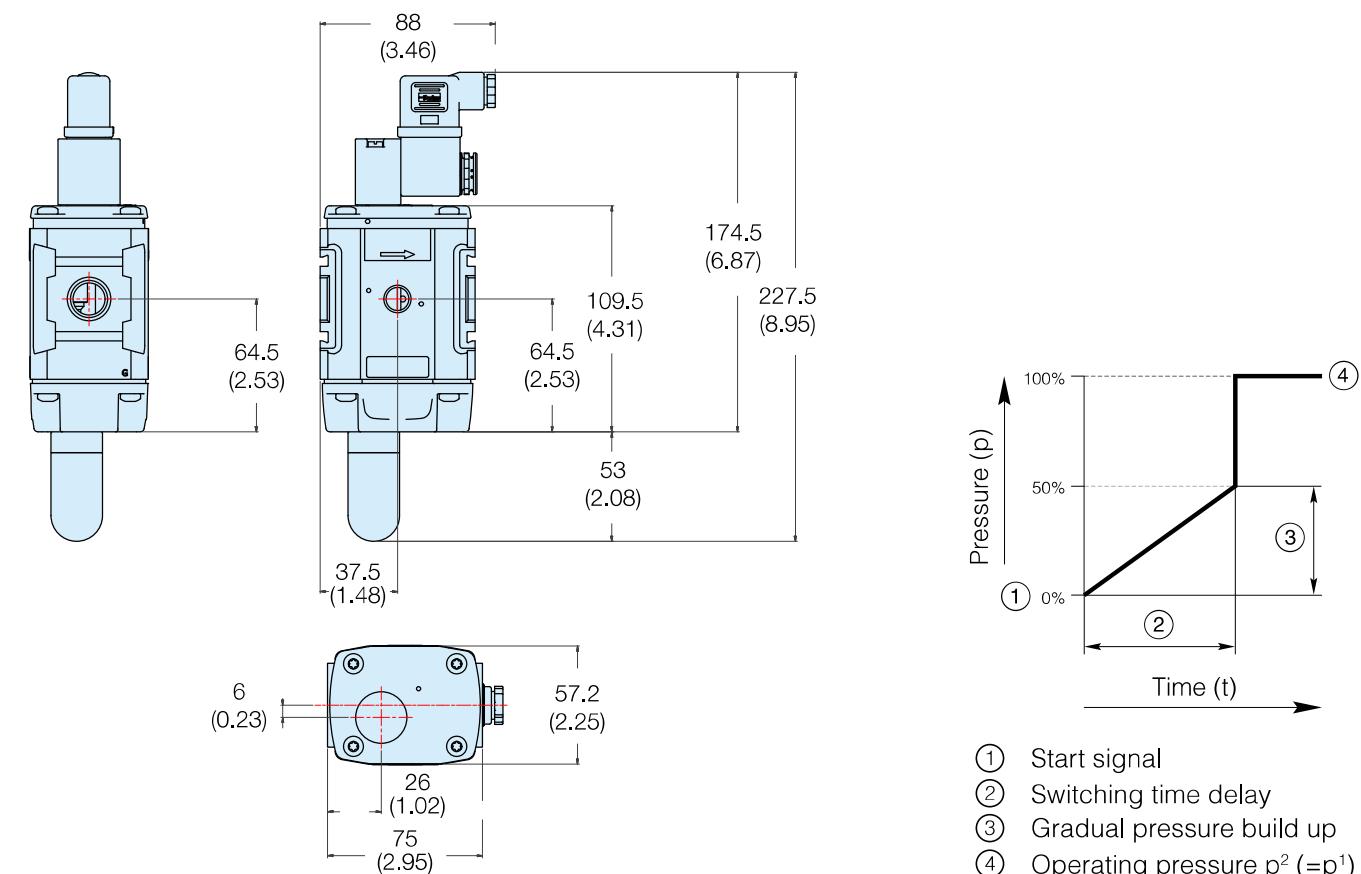
Combined Soft Start Dump Valve and Remote Operated Dump Valve

Dimensions - mm (inches)

P31



P32



- ① Start signal
- ② Switching time delay
- ③ Gradual pressure build up
- ④ Operating pressure p^2 ($=p^1$)

Combined Soft Start Dump Valve and Remote Operated Dump Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31TA12SGN0000
1/4	24VDC Solenoid & cable plug	P31TA12SGNC2CN
1/4	Air pilot operated	P31TA12PPN
1/2	Solenoid operated (not included)	P32TA14SCN0000
1/2	24VDC 30mm coil & cable plug incl.	P32TA14SCNA2CN
1/2	Air pilot operated	P32TA14PPN
1/2	Solenoid operated (not included) Category 2 - Machine Directive Valve Contact - Sales Office for further details.	P32TA14SC20000

Soft Start Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31SA12SGN0000
1/4	24VDC Solenoid & cable plug	P31SA12SGNC2CN
1/4	External air pilot (1/8 threaded)	P31SA12PPN
1/2	Solenoid operated (not included)	P32SA14SCN0000
1/2	24VDC 30mm coil & cable plug	P32SA14SCNA2CN
1/2	Internal air pilot operated	P32SA14Y0N
1/2	External air pilot (1/8 threaded)	P32SA14PPN

Remote Operated Dump Valve

Port	Description	Order code
1/4	Solenoid operated (not included)	P31DA12SGN0000
1/4	24VDC Solenoid & cable plug	P31DA12SGNC2CN
1/4	Air pilot operated	P31DA12PPN
1/2	Solenoid operated (not included)	P32DA14SCN0000
1/2	24VDC 30mm coil & cable plug incl.	P32DA14SCNA2CN
1/2	Air pilot operated	P32DA14PPN
1/2	Solenoid operated (not included) Category 2 - Machine Directive Valve Contact - Sales Office for further details.	P32DA14SC20000

C-Bracket

(Fits to filter and lubricator body)

P31	
P31KA00MW	

L-Bracket

(Fits to filter and lubricator body)

P32	P33
P32KA00ML	P33KA00ML

Body Connector 'O' ring kit -

Pack of 5

P31	P32
P31KA00CY	P32KA00CY

Modular Ball Valve / Lockout Valve

Model type	Port size	Thread type	Flow dm ³ /s (scfm)	Modular Ball Valve Flow from left to right
P31	1/4"	BSPP	20 (42.4)	P31VB12LBNN
P32	3/8"	BSPP	90 (190.7)	P32VB13LBNN
	1/2"	BSPP	122 (258.5)	P32VB14LBNN
P33	1/2"	BSPP	122 (258.5)	P33VB14LBNN
	3/4"	BSPP	122 (258.5)	P33VB16LBNN

For thread type: BSPP 1
NPT 9

Manifold Blocks

Model Type	In / Out Port Size	Auxiliary Port Top Size	Auxiliary Port Bottom Size	Thread Type	Order Code
P31	1/4"	1/4"	1/4"	BSPP	P31MA12022N
P32	1/2"	1/4"	1/2"	BSPP	P32MA14024N
P33	3/4"	1/4"	1/2"	BSPP	P33MA16024N
		BSPP <u>1</u>	NPT <u>9</u>		

Branch Manifold

P32	1/2"	1/4"	1/4"	BSPP	P32MD14022N
P32	1/4"	1/4"	1/4"	BSPP	P32MD12022N

T-Bracket

(Fits to body connector or port block)

P32	P33
P32KA00MB	P32KA00MB

Angle Bracket

(Fits to regulator and filter/regulator)

P31	P32	P33
P31KB00MR	P32KB00MR	P33KA00MR

T-Bracket w / Body Connector

P31	P32	P33
P31KA00MT	P32KA00MT	P32KA00MT

Panel mounting nut

(Aluminium)

P31	P32	P33
P31KA00MM	P32KA00MM	P33KA00MM

Body Connector

P31	P32	P33
P31KA00CB	P32KA00CB	P32KA00CB

Accessories Kits

Series	Description	Order Code	
P31 P32 P33	Panel Mount Nut (Plastic)	P31KA00MP P32KA00MP P33KA00MP	
P31 P32 P33	Panel Mount Nut (Aluminium)	P31KA00MM P32KA00MM P33KA00MM	
P31 P32 P33	5μ Element Kit	P31KA00ESE P32KA00ESE P33KA00ESE	
P31 P32 P33	40μ Element Kit	P31KA00ESG P32KA00ESG P33KA00ESG	
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	Fill Plug Kit	P31KA00PL P32KA00PL	
P31 / P32 / P33	Drip Control Assembly Kit	P32KA00PG	

Accessories Kits

Series	Description	Order Code	
P31 P32 P33	Plastic Bowl with Bowl Guard & Manual Drain	P31KB00BGM P32KB00BGM P33KA00BGM	
P31 P32 P33	Plastic Bowl with Bowl Guard & Pulse Drain	P31KB00BGB	
P31	Metal Bowl without Sight Gauge & Pulse Drain	P31KB00BMB	
P32 P33	Metal Bowl with Sight Gauge & Manual Drain	P32KB00BSM P33KA00BSM	
P32 P33	Metal Bowl with Sight Gauge & Auto Drain	P32KB00BSA P33KA00BSA	
P31 P32 P33	Lubricator - Plastic Bowl with Bowl Guard & Close End	P31KB00BGN P32KB00BGN P33KA00BGN	
P31 P32 P33	Lubricator - Metal Bowl Without Sight Gauge, No Drain Lubricator - Metal Bowl With Sight Gauge, No Drain Lubricator - Metal Bowl With Sight Gauge, No Drain	P31KB00BMN P32KB00BSN P33KA00BSN	

- Compact body ported units.
- Port size G¹/4
- Unique deflector plate ensuring maximum water and particulate removal.
- Solid control piston with lip seal for extended life.
- Proportional oil delivery over a wide range of air flows.
- Tamperproof options available.



Operating information

Working pressure:	Max 10 bar
Working temperature:	-10 °C to +52 °C

Flow characteristics

Flow dm ³ /s	1/4
Filter	30.5
Coalescing Filter	5.9
Adsorber Filter	5.9
Regulator	12.9
Regulator - Brass	9.8
Filter Regulator	9.2
Lubricator	23.3

Filters

Port size	Description	Order Code
G1/4	Poly bowl - Manual drain - 5μ	P3LFA12EPPN
G1/4	Poly bowl - Pulse drain - 5μ	P3LFA12EPSN
G1/4	Poly bowl - Manual drain - 40μ	P3LFA12GPPN
G1/4	Poly bowl - Pulse drain - 40μ	P3LFA12GPSN
	Individual mounting bracket - P3LFA / P3LLA	P3LKA00MW

Regulators - 2 & 4 bar - relieving type & non relieving type

Port size	Description	Order Code
G1/4	8 bar relieving	P3LRA12BNNP
G1/4	8 bar relieving + gauge	P3LRA12BNGP
G1/4	8 bar relieving + Tamperproof	P3LRA12BANP
G1/4	8 bar relieving + gauge - Tamperproof	P3LRA12BAGP

Regulators (Brass) - 2, 4 & 16 bar-relieving type & non relieving type

Port size	Description	Order Code
G1/4	8 bar relieving	P3LRX12BNNP
G1/4	8 bar relieving + gauge	P3LRX12BNGP
G1/4	16 bar relieving	P3LRX12BNHP
G1/4	8 bar relieving + Tamperproof	P3LRX12BANP
G1/4	8 bar relieving + gauge - Tamperproof	P3LRX12BAGP
G1/4	16 bar relieving + Tamperproof	P3LRX12BAHP

Pressure Gauges

40mm (1¹/₂) Round 1/8" center back mount

		Order Code
0-30 PSIG / 0-2 bar	(2)	KZ8810-00
0-58 PSIG / 0-4 bar	(4)	KZ8811-00
0-160 PSIG / 0-10 bar	(10)	KZ8813-00

Coalescing Filters - 0.01μ element

Port size	Description	Order Code
G1/4	Poly bowl - Manual drain - 0.01μ	P3LFA12CPPN
	Individual mounting bracket - P3LFA / P3LLA	P3LKA00MW

Adsorber Filters

Port size	Description	Order Code
G1/4	Poly bowl - Adsorber	P3LFA12APPN

Filter/Regulators - 2 & 4 bar pressure, 40μ available

Port size	Description	Order Code
G1/4	8 bar relieving - Poly bowl Manual drain - 5μ	P3LEA12EPPBNP
G1/4	8 bar relieving - Poly bowl Semi auto-drain - 5μ	P3LEA12EPSBNP
G1/4	8 bar relieving - Poly bowl Manual drain + Gauge - 5μ	P3LEA12EPPBNGP
G1/4	8 bar relieving - Poly bowl Semi auto-drain + Gauge - 5μ	P3LEA12EPSBNGP

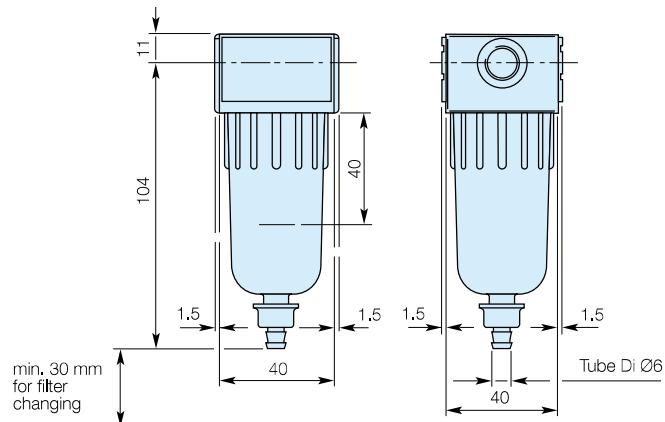
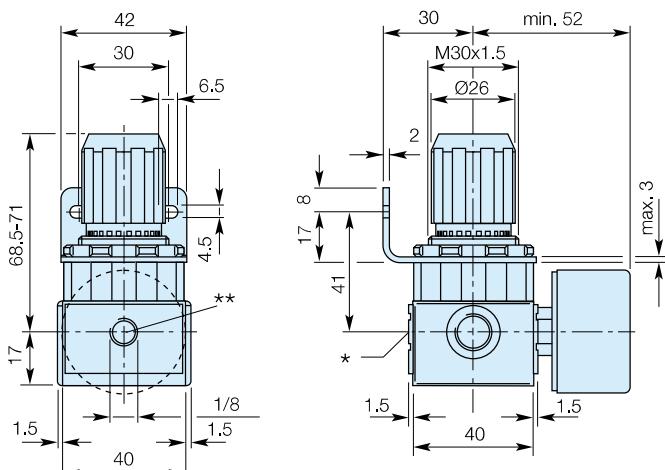
Lubricators

Port size	Description	Order Code
G1/4	Poly bowl - No drain	P3LLA12LPNN
	Lubricator OIL VG32-1 Litre	P3YKA00PPBB

Filter/Regulator + Lubricator Combination

Available in boxed quantities of 25

Port size	Description	Order Code
G1/4	Manual push drain	P3LCA12PEPNGLNWQ25
G1/4	Semi auto drain	P3LCA12PESNGLNWQ25

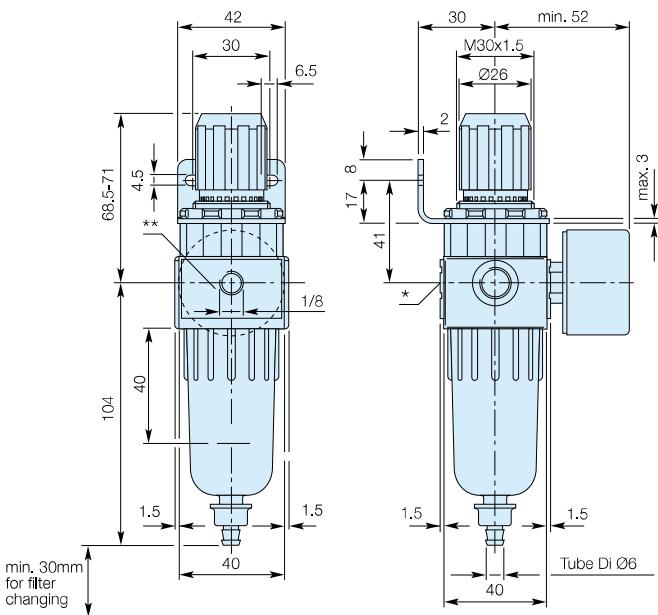
Dimensions (mm)**Filters****Regulators**

* On delivery the screw plug is not assembled

** Two opposite gauge ports 1/8"

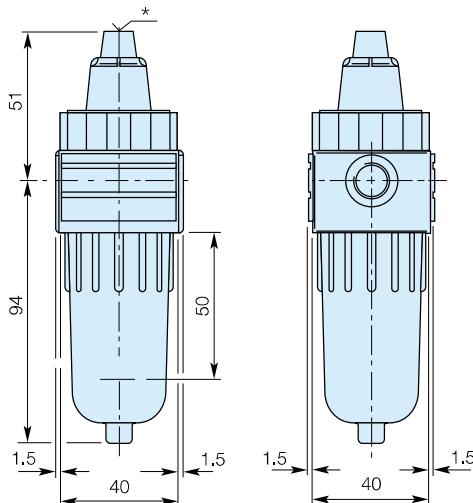
Service kits

Description	Order code
Plastic bowl / manual push drain	P3LKA00BPP
Plastic bowl / semi-auto drain	P3LKA00BPS
Plastic bowl - no drain	P3LKA00BPN
5µ particle filter element	P3LKA00ESE
40µ Element Kit	P3LKA00ESG
0.01µ coalescing filter element	P3LKA00ESC
Activated carbon adsorber filter element	P3LKA00ESA

Filter/Regulators

* On delivery the screw plug is not assembled

** Two opposite gauge ports 1/8"

Lubricators

* Oil adjustment screw

Accessories

Description	Order code
Connector kit (E/R + L/F)	P3LKA00CB1
Connector kit (E/R + M + L)	P3LKA00CB2
Connector kit (E/R + F + F)	P3LKA00CB3
Connector kit (F + L/F)	P3LKA00CB4
Manifold block	P3LMA12020C
Mounting bracket (F/L)	P3LKA00MW
Panel mount nut - Aluminium	P3LKA00MM
Panel mount nut - Plastic	P3LKA00MP
Angle Bracket (uses panel mount threads)	P3LKA00MR

- Port size G¹/4 - G³/8
- Modular air preparation series
- Robust and lightweight zinc body construction
- Rolling diaphragm for extended life
- Soft start valve for slow pressure build up in pneumatic circuits
- Dump valves for quick downstream pressure exhaust
- Tamperproof regulator options available
- Secondary pressure ranges 4, 8 and 16 bar



Operating information

Working pressure:	Max 16 bar
Working temperature:	0 °C to +50 °C

* Low temperature capabilities -40°C for Filters, Filter/Regulators and Regulators on request.

Flow characteristics

Flow m ³ /h	1/4	3/8
Filter + Regulator + Lubricator	50	47
Filter-Regulator + Lubricator	53	47
Filter-Water-Separator	86	91
Dust Filter	80	97
Coalescing Filter	35	35
Adsorber Filter	35	35
Regulator	171	198
Filter Regulator	137	192
Lubricator	110	113

Filters

5 micron (40 micron options available)

Port size	Description	Order Code
G1/4	Standard with 5μ element	P3SFA12EPPN
G1/4	Semi auto drain 5μ element	P3SFA12EPSN
G1/4	Auto drain 5μ element	P3SFA12EPAN
G1/4	Metal bowl with sight glass 5μ element	P3SFA12ESPN
G3/8	Standard with 5μ element	P3SFA13EPPN
G3/8	Semi auto drain 5μ element	P3SFA13EPSN
G3/8	Auto drain 5μ element	P3SFA13EPAN
G3/8	Metal bowl with sight glass 5μ element	P3SFA13ESPN

Regulators

4, 8 & 16 bar (non relieving options available)

Port size	Description	Order Code
G1/4	Standard 8 bar	P3SRA12BNNP
G1/4	Standard 8 bar with Gauge	P3SRA12BNGP
G1/4	With adaptor for key lock	P3SRA12BANP
G1/4	With common p1 supply	P3SHA12BNNP
G1/4	Pilot operated	P3SRA12BPPP
G3/8	Standard 8 bar	P3SRA13BNNP
G3/8	Standard 8 bar with Gauge	P3SRA13BNGP
G3/8	With adaptor for key lock	P3SRA13BANP
G3/8	With common p1 supply	P3SHA13BNNP
G3/8	Pilot operated	P3SRA13BPPP

Coalescing Filters

0,01 micron element

Port size	Description	Order Code
G1/4	Standard with manual drain	P3SFA12CPPN
G1/4	Metal bowl with sight glass	P3SFA12CSPN
G3/8	Standard with manual drain	P3SFA13CPPN
G3/8	Metal bowl with sight glass	P3SFA13CSPN

Adsorber Filters

Port size	Description	Order Code
G1/4	Standard with manual drain	P3SFA12APPN
G1/4	Metal bowl with sight glass	P3SFA12ASPN
G3/8	Standard with manual drain	P3SFA13APPN
G3/8	Metal bowl with sight glass	P3SFA13ASPN

Lubricators

Port size	Description	Order Code
G1/4	Standard	P3SLA12LPNN
G1/4	Closed metal bowl with sight glass	P3SLA12LSNN
G3/8	Standard	P3SLA13LPNN
G3/8	Closed metal bowl with sight glass	P3SLA13LSNN

Filter + Regulator + Lubricator combination

(wall bracket mount and gauge included)

Port size	Description	Order Code
G1/4	Standard with 5μ element, manual drain	P3SCB12PEPNGLNW
G1/4	Semi auto drain 5μ element, manual drain	P3SCB12PESNGLNW
G1/4	Auto drain 5μ element, manual drain	P3SCB12PEANGLNW
G3/8	Standard with 5μ element, manual drain	P3SCB13PEPNGLNW
G3/8	Semi auto drain 5μ element, manual drain	P3SCB13PESNGLNW
G3/8	Auto drain 5μ element, manual drain	P3SCB13PEANGLNW

Filter/Regulator + Lubricator combination

(wall bracket mount and gauge included)

Port size	Description	Order Code
G1/4	Standard with 5μ element, manual drain	P3SCA12PEPNGLNW
G1/4	Semi auto drain 5μ element	P3SCA12PESNGLNW
G1/4	Auto drain 5μ element	P3SCA12PEANGLNW
G1/4	Metal bowl with sight glass 5μ element	P3SCA12SEPNGLNW
G3/8	Standard with 5μ element, manual drain	P3SCA13PEPNGLNW
G3/8	Semi auto drain 5μ element	P3SCA13PESNGLNW
G3/8	Auto drain 5μ element	P3SCA13PEANGLNW
G3/8	Metal bowl with sight glass 5μ element	P3SCA13SEPNGLNW

Filter/Regulators

4, 8 & 16 bar (40 micron options available)

Port size	Description	Order Code
G1/4	Standard with 5μ element	P3SEA12EPPBNM
G1/4	Semi auto drain 5μ element	P3SEA12EPSBNM
G1/4	Auto drain 5μ element	P3SEA12EPABNM
G1/4	Metal bowl with sight glass 5μ element	P3SEA12ESPGLNW
G3/8	Standard with 5μ element	P3SEA13EPPBNM
G3/8	Semi auto drain 5μ element	P3SEA13EPSBNM
G3/8	Auto drain 5μ element	P3SEA13EPABNM
G3/8	Metal bowl with sight glass 5μ element	P3SEA13ESPGLNW

Proportional Pressure Regulator

Port size	Description	Order Code
G1/4	Normally closed, Control Signal 0-10V Pressure Range 0-10 bar	P3SPA12AD2VA2A
G1/4	Normally closed, Control Signal 4-20mA Pressure Range 0-10 bar	P3SPA12AD2AA2A
G1/4	Normally open / fail safe Control Signal 0-10V Pressure Range 0-10 bar	P3SPA12ED2VA2A
G1/4	Normally open / fail safe Control Signal 4-20mA Pressure Range 0-10 bar	P3SPA12ED2AA2A
G3/8	Normally closed, Control Signal 0-10V Pressure Range 0-10 bar	P3SPA13AD2VA2A
G3/8	Normally closed, Control Signal 4-20mA Pressure Range 0-10 bar	P3SPA13AD2AA2A
G3/8	Normally open / fail safe Control Signal 0-10V Pressure Range 0-10 bar	P3SPA13ED2VA2A
G3/8	Normally open / fail safe Control Signal 4-20mA Pressure Range 0-10 bar	P3SPA13ED2AA2A

Slider Valve

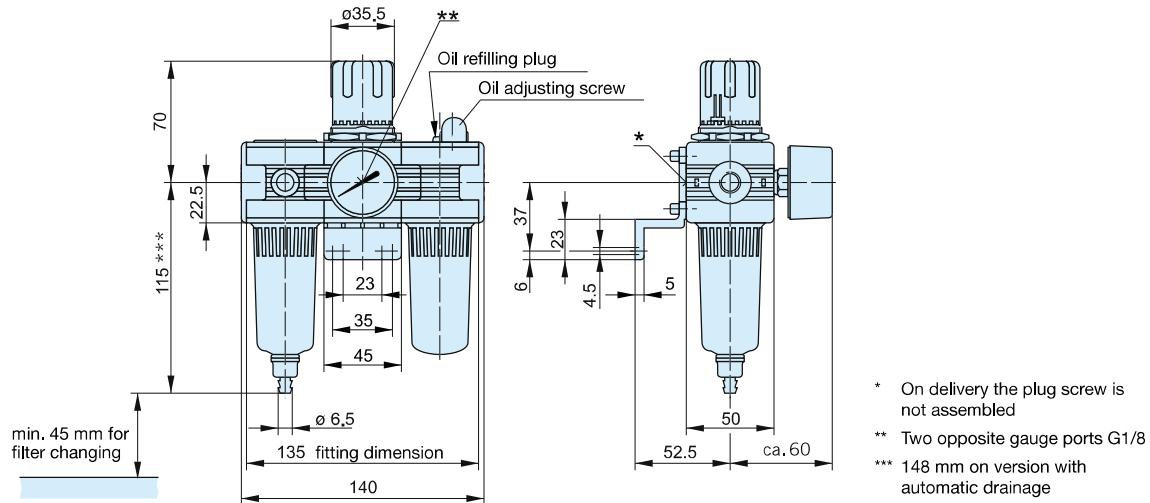
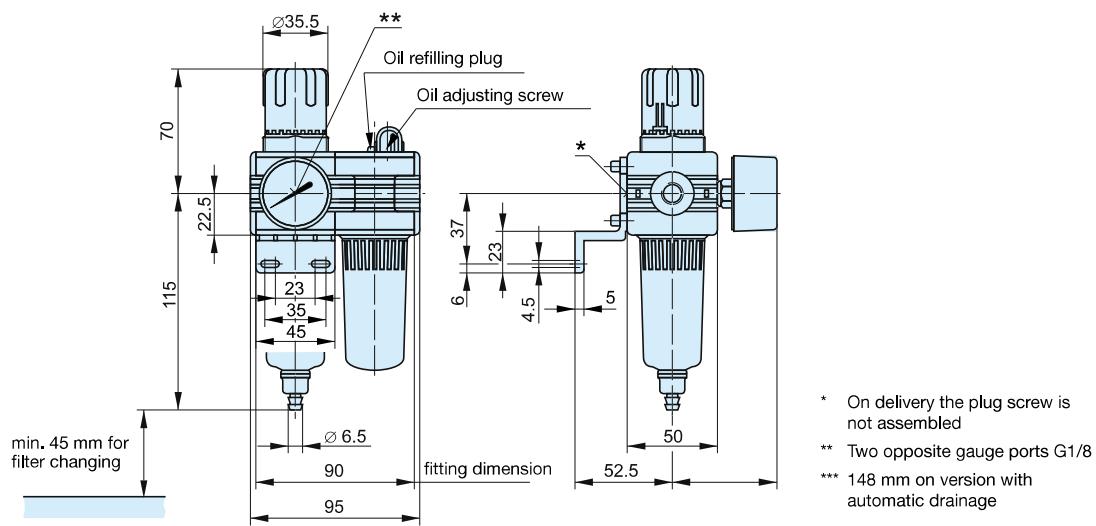
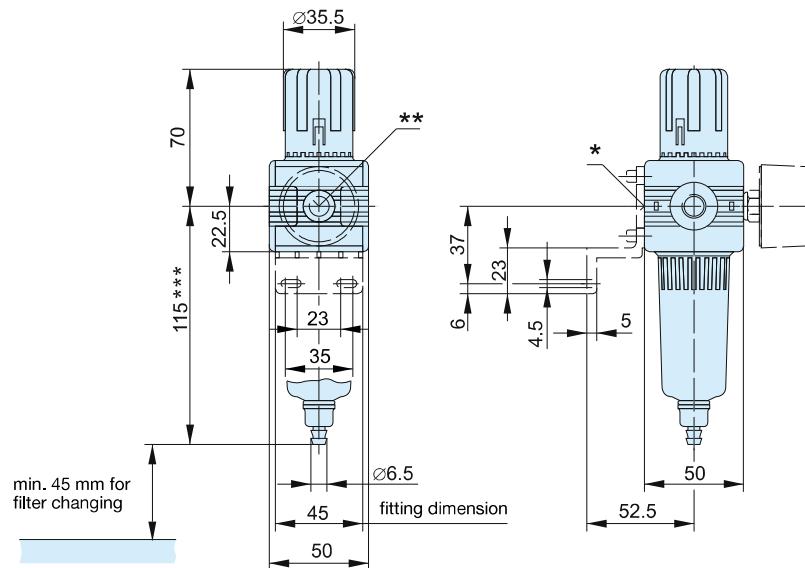
Port size	Description	Order Code
G1/4	3/2 way shut off valve 3-fold lockable	P3SVA12LSN
G3/8	3/2 way shut off valve 3-fold lockable	P3SVA13LSN

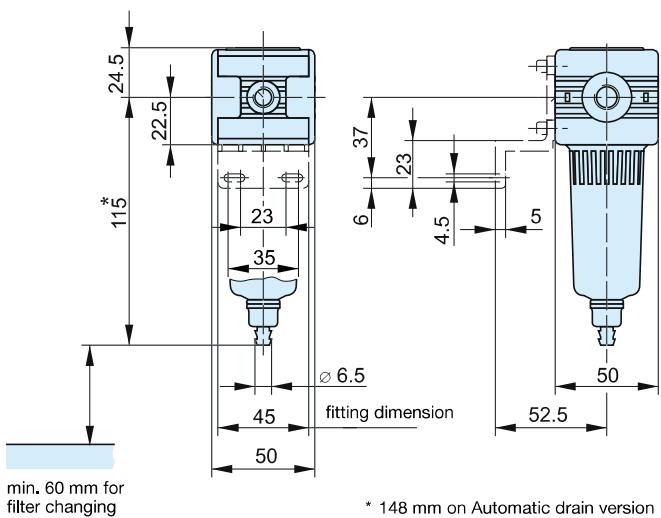
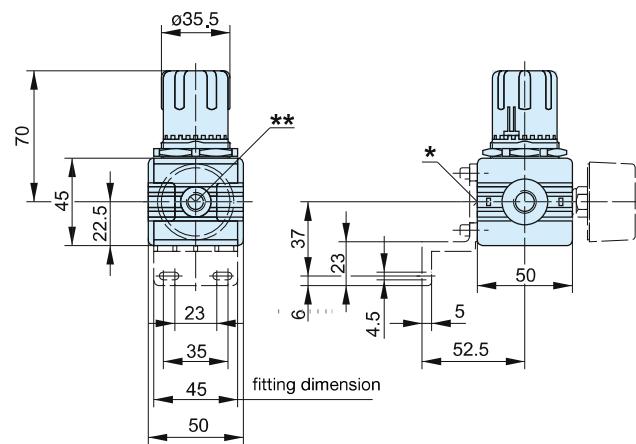
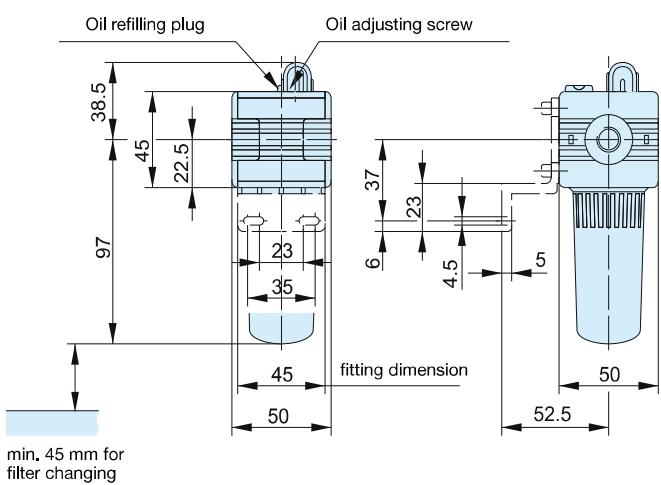
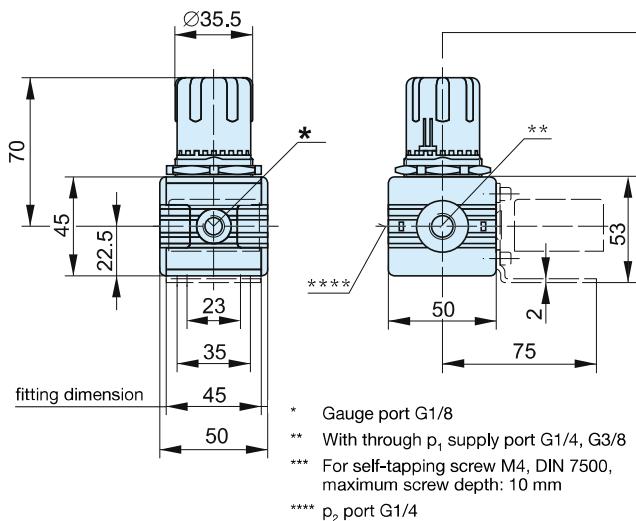
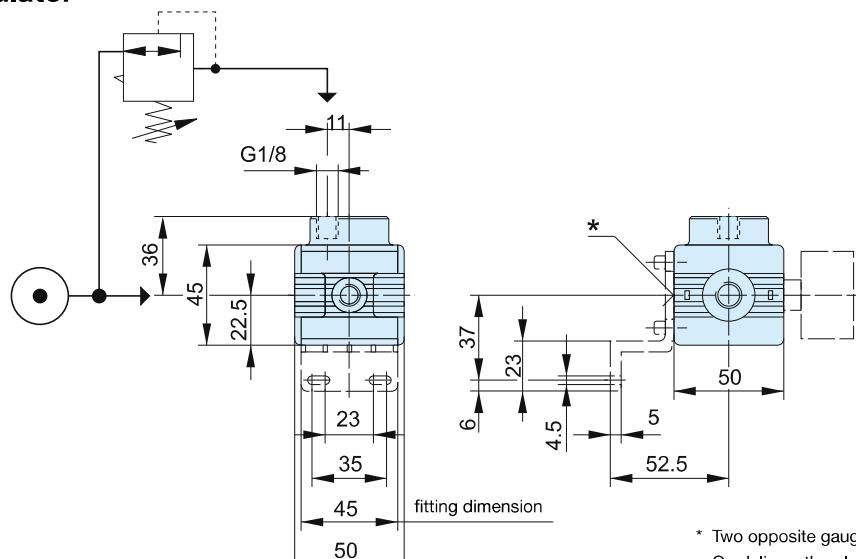
Soft Start Valve & Dump Valves

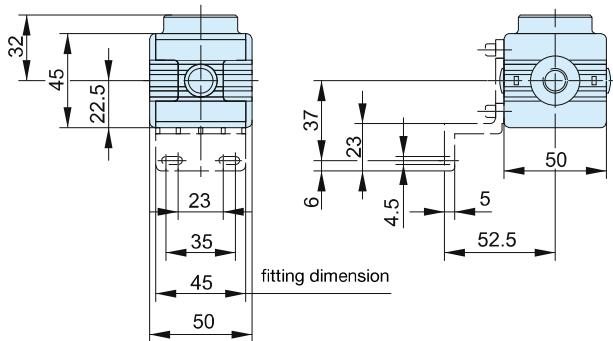
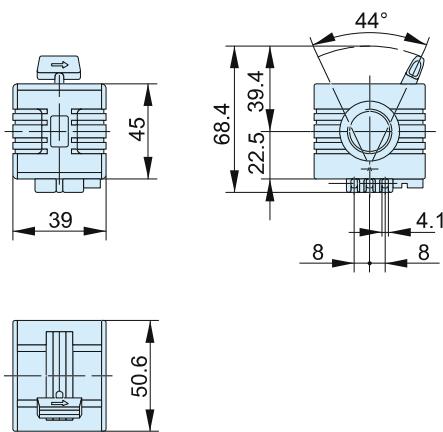
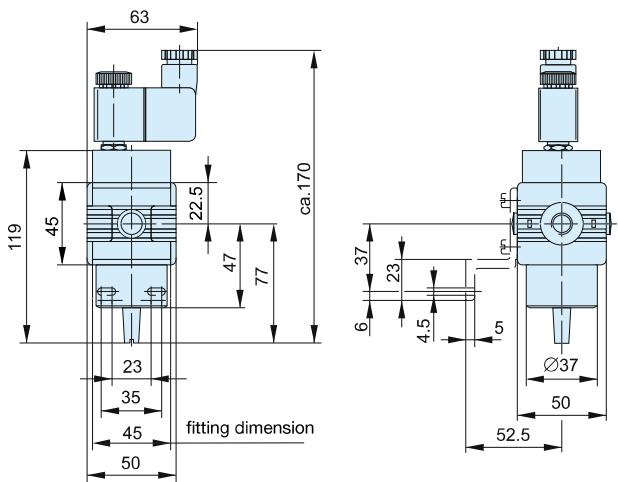
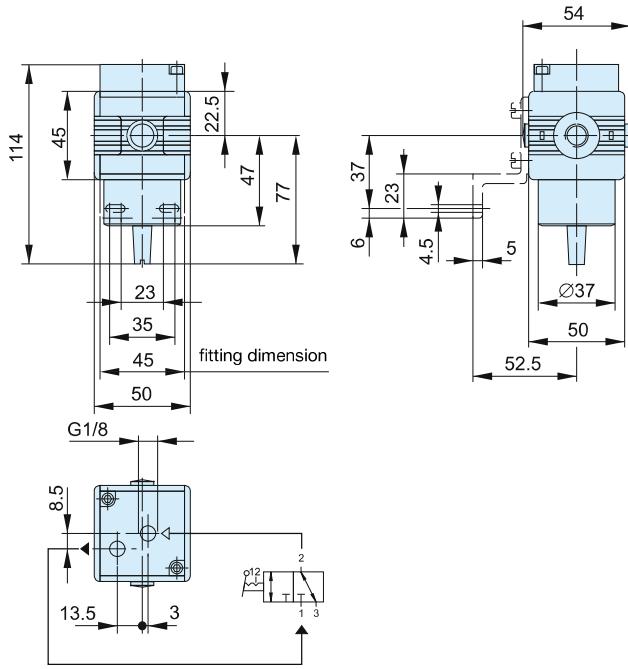
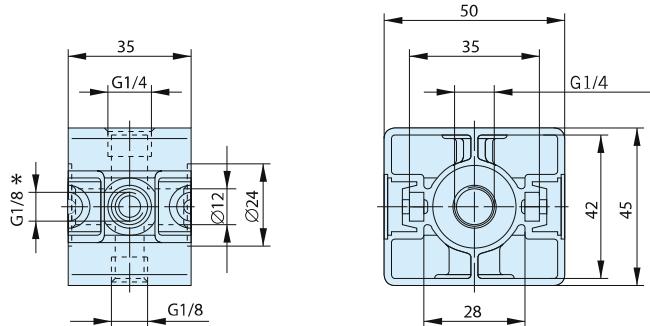
Port size	Description	Order Code
G1/4	Soft Start Valve	P3SSA12Y0N
G1/4	Dump Valve Air Pilot	P3SDA12PPN
G1/4	Solenoid Pilot 24V =	P3SDA12SCNB2CN
G1/4	Solenoid Operated (solenoid not included)	P3SDA12SCN0000
G3/8	Soft Start Valve	P3SSA13Y0N
G3/8	Dump Valve Air Pilot	P3SDA13PPN
G3/8	Solenoid Pilot 24V =	P3SDA13SCNB2CN
G3/8	Solenoid Operated (solenoid not included)	P3SDA13SCN0000

Accessories

Description	Order Code
Wall Mount Kit - standard	P3SKA00MW
Wall Mount Kit for common p1 regulator	P3SKA00MB
Assembly Kit	P3SKA00CB
Branch manifold, 3 x G1/8, 1 x G1/4 for pressure switch incl. assembly material	P3SMA1V0N
Gauge Ø 40, 0-10 bar, G1/8	KZ8813-00
Lock for tamperproof regulator	P3XKA00AS

Dimensions (mm)**Filter + Regulator + Lubricator combination****Filter/Regulator + Lubricator combination****Filter/Regulator**

Dimensions (mm)**Filter****Regulator****Lubricator****Common - P1 Regulator****Pilot Operated Regulator**

Dimensions (mm)**Start Valve****Slider Valve****Remote Operated Dump Valve
(electrically actuated)****Remote Operated Dump Valve
(pneumatically actuated)****Branch Manifold**

* G1/8 thread on both sides



Nano Mist

Simple. Convincing in the Details

There are innovations that bring selective improvements.

And then there are real innovations.

*Innovations that set **new** standards.*

*Like the **new Parker Moduflex Lite** series.*



**New Nano Mist Technology,
New Lubricator Concept.
Self-Adjusting.**

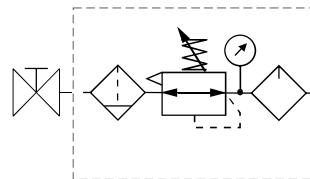
With conventional lubricators, only the oil volume per time unit can be adjusted. If the demand changes, the quantity dispensed still remains constant.

The Moduflex Lite lubricator concept sets new benchmarks here. For the first time, the oil volume is automatically adjusted to the flow rate.

This ensures that there is neither too little nor too much oil in the system, which leads to clear economic and ecological advantages. In addition, with conventional systems, the distance between the lubricator and the equipment has to be less than 8 meters. With larger distances, the dispensed oil is deposited as a wall flow.

The new lubricator principle of the Moduflex Lite allows for distances of up to 40 meters. This opens up new scope for the design of even more efficient production systems.

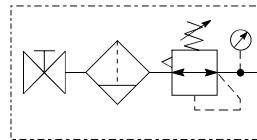
Popular Combinations



Slide Valve + Filter/Regulator + Lubricator Combinations (50mg/m³)

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

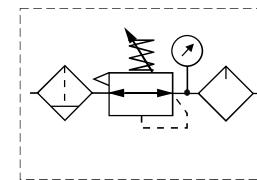
Port size	Combined Manual/Semi-Auto Drain	Flow dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ^{1/2}	P3XAA14GECNGPNW	76	1300	P3XAA14GEANGPNW	76	1300
G ^{3/4}	P3XAA16GECNGPNW	77	1300	P3XAA16GEANGPNW	77	1300



Slide Valve + Filter/Regulator Combinations

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ^{1/2}	P3XAN14GECNGW	105	950	P3XAN14GEANGW	105	950
G ^{3/4}	P3XAN16GECNGW	106	950	P3XAN16GEANGW	106	950



Filter/Regulator + Lubricator Combinations (50mg/m³)

5 micron element, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	Combined Manual/Semi-Auto Drain	Flow dm ³ /s	Weight (g)	Auto Drain	Flow dm ³ /s	Weight (g)
G ^{1/2}	P3XCA14GECNGPNW	76	1000	P3XCA14GEANGPNW	76	1000
G ^{3/4}	P3XCA16GECNGPNW	77	1000	P3XCA16GEANGPNW	77	1000

Options:

P 3 X				G E				W
Filter/Reg + Lubricator	CA	BSPP (G)	1	Combined	C	0 - 8 bar with gauge	G	
Slide valve + Filter/Reg	AN	NPT *	9	Manual/Semi		0 - 16 bar with gauge	J	
Slide valve + Filter/Reg + Lubricator	AA			Auto Drain	A			
* NPT ports on request 1/2" size only		1/2	4	Non rise - Standard	N	(50mg/m ³)	PN	Add only for options with lubricator
		3/4	6	Tamperproof - Lockable	A	(5mg/m ³)	SN	

- Integral 1/2 or 3/4 ports
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Secondary pressure ranges 4, 8 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Low temperature -40°C with Regulators/Filters and Filter Regulators using combined manual/semi auto drain as standard without pressure gauge.



Operating information		Flow characteristics		
		Flow dm³/s	1/2	3/4
Working pressure:	Max 16 bar			
Working temperature:	-40 °C to +60 °C			
		Filter	55	57
		Coalescing Filter	24	24
		Adsorber Filter	18	18
		Regulator	122	134
		Filter Regulator	111	113
		Lubricator	78	78

Filters - 5 micron element

Port	Description	Order Code
size		
G1/2	Manual drain/Semi auto	P3XFA14EGCN
G1/2	Auto drain	P3XFA14EGAN
G3/4	Manual drain / Semi auto	P3XFA16EGCN
G3/4	Auto drain	P3XFA16EGAN
	Mounting bracket	P3XKA00MW

Regulators - 4 & 8 bar - non relieving options available

Port	Description	Order Code
size		
G1/2	8 bar relieving	P3XRA14BNNN
G1/2	8 bar relieving + gauge	P3XRA14BNGN
G3/4	8 bar relieving	P3XRA16BNNN
G3/4	8 bar relieving + gauge	P3XRA16BNGN
G1/2	8 bar relieving, tamperproof	P3XRA14BANN
G1/2	8 bar relieving, tamperproof + gauge	P3XRA14BAGN
G3/4	8 bar relieving, tamperproof	P3XRA16BANN
G3/4	8 bar relieving, tamperproof + gauge	P3XRA16BAGN
G1/2	Air-pilot regulator	P3XRA14BPPN
G3/4	Air-pilot regulator	P3XRA16BPPN

Lubricators

Port	Description	Order Code
size		
G1/2	Oil mist, fill under pressure (50mg/m ³)	P3XLA14PGNN
G3/4	Oil mist, fill under pressure (50mg/m ³)	P3XLA16PGNN
G1/2	Oil mist, fill under pressure (5mg/m ³)	P3XLA14SGNN
G3/4	Oil mist, fill under pressure (5mg/m ³)	P3XLA16SGNN
	Lubricator OIL VG15:ISO3448 - 100ml	P3XKA00PPA
	Lubricator OIL VG32-1 Litre	P3YKA00PPBB

Coalescing Filters - 0.01 micron element

Port	Description	Order Code
size		
G1/2	Coalescing 0.01µm, manual/semi auto drain	P3XFA14DGNC
G1/2	Coalescing Filter 0.01µm, auto drain	P3XFA14DGAN
G3/4	Coalescing 0.01µm, manual/semi auto drain	P3XFA16DGNC
G3/4	Coalescing Filter 0.01µm, auto drain	P3XFA16DGAN

Adsorber Filters

Port	Description	Order Code
size		
G1/2	Adsorber, manual/semi auto drain	P3XFA14AGCN
G3/4	Adsorber, manual/semi auto drain	P3XFA16AGCN

Filter/Regulators

4 and 16 bar, non relieving options available

Port	Description	Order Code
size		
G1/2	8 bar, relieving manual/semi auto drain	P3XEA14EGCBNNN
G1/2	8 bar, relieving auto drain	P3XEA14EGABNNN
G1/2	8 bar, relieving manual/semi auto + gauge	P3XEA14EGCBNGN
G1/2	8 bar, relieving auto drain + gauge	P3XEA14EGABNGN
G3/4	8 bar, relieving manual/semi auto drain	P3XEA16EGCBNNN
G3/4	8 bar, relieving auto drain	P3XEA16EGABNNN
G3/4	8 bar, relieving manual/semi auto + gauge	P3XEA16EGCBNGN
G3/4	8 bar, relieving auto drain + gauge	P3XEA16EGABNGN

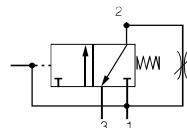
Pressure Gauges

	Order Code
0 - 10 bar	KG8012-00
0 - 16 bar	KG8013-00

Dump Valve & Combined Soft Start Dump Valve



Symbols



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

P3X 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.

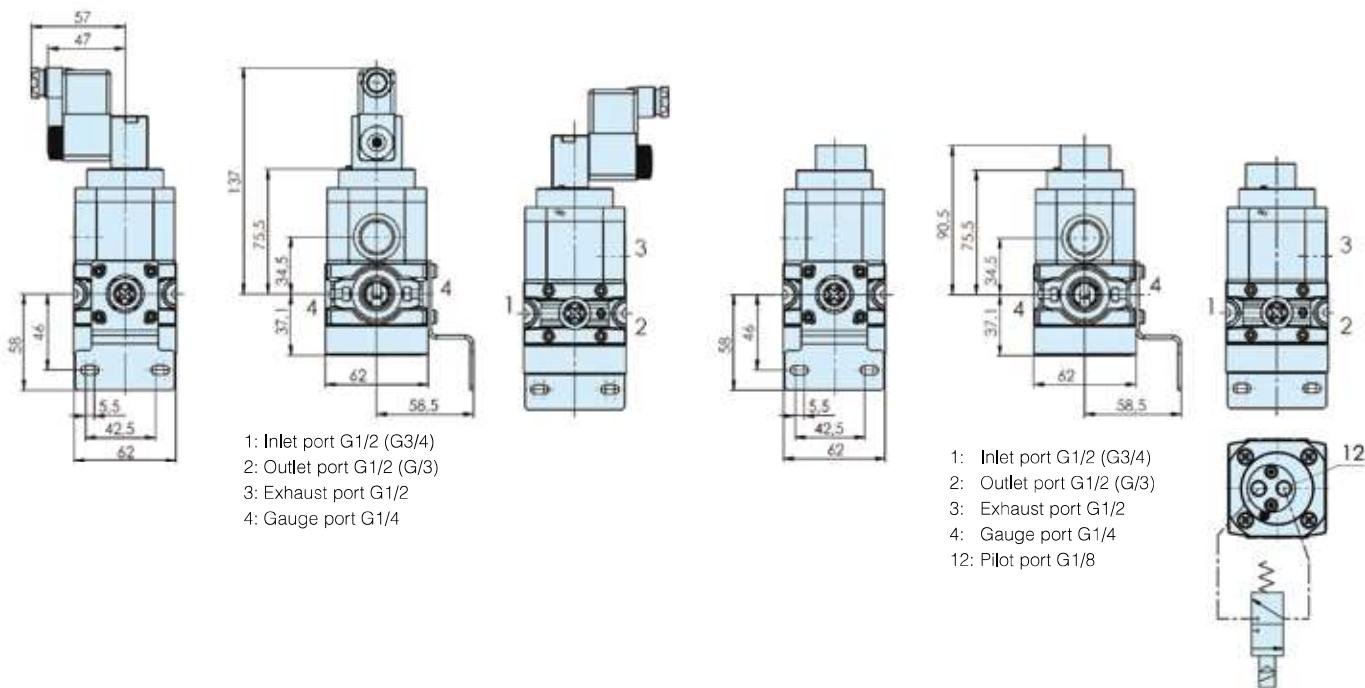
Options:

P 3 X	A	T	D	P	S	C	P	N	0	A	B	D	E	000	2CN
Combined soft start dump valve			External air pilot		Solenoid pilot			None (operator is fitted to valve)							
Dump valve								30mm CNOMO coil (Form connection)							
BSPP (G)	1		1/2	4	30mm operator	C		22mm coil (Form connection)							
NPT *	9		3/4	6	Threaded air pilot	P		30mm CNOMO coil (M12 connection)							
* NPT Ports on request 1/2" size only															

Combined soft start dump valve

Port size	Description	Order Code	Flow dm ³ /s	Max bar	Min temp °C	Max temp °C	Height mm	Width mm	Depth mm	Weight kg
1/2	Solenoid operated (not included)	P3XTA14SCN0000	80	16	-10	60	144	62	62	0.75
1/2	24VDC 22mm coil	P3XTA14SCNB2CN	80	10	-10	60	174	88	62	0.75
1/2	24VDC 30mm coil	P3XTA14SCNA2CN	80	16	-10	60	174	88	62	0.75
1/2	Air pilot operated	P3XTA14PPN	80	16	-10	60	127.5	62	62	0.75
3/4	Solenoid operated (not included)	P3XTA16SCN0000	88	16	-10	60	144	62	62	0.75
3/4	24VDC 22mm coil	P3XTA16SCNB2CN	88	10	-10	60	174	88	62	0.75
3/4	24VDC 30mm coil	P3XTA16SCNA2CN	88	16	-10	60	174	88	62	0.75
3/4	Air pilot operated	P3XTA16PPN	88	16	-10	60	127.5	62	62	0.75

Dimensions (mm)

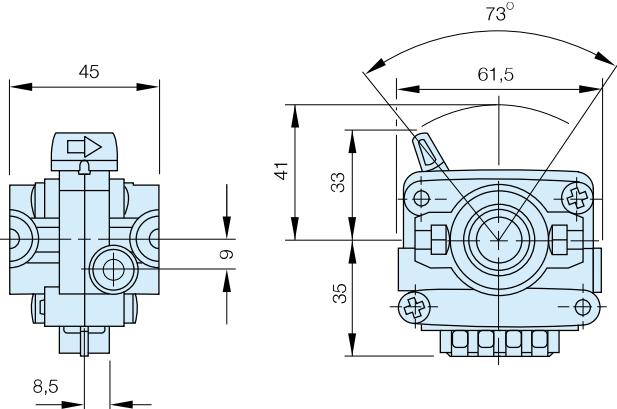


Modular Slide Valve

P 3 X	V A		L S N
BSPP (G)	1		
NPT *	9		

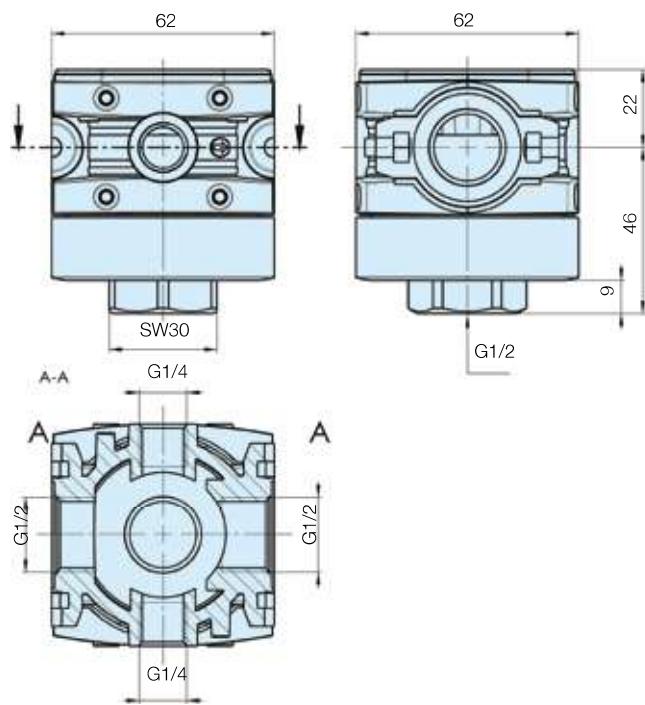
G1/2"	P3XMA1V0N	P3XMA9V0N	170
G3/4"	P3XMA160N		170

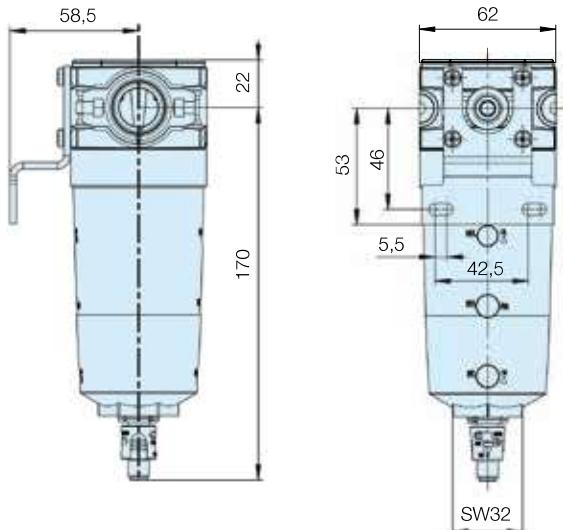
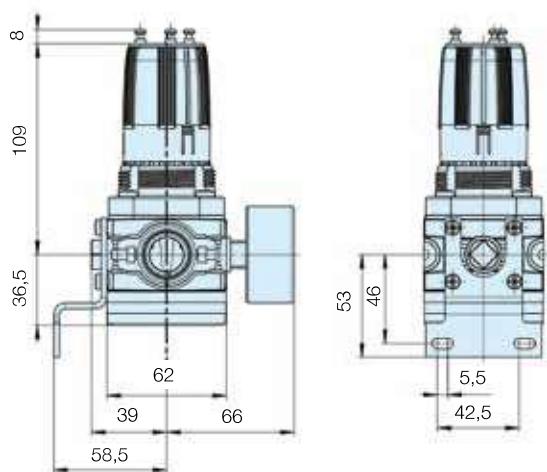
* NPT ports on request (1/2" size only)



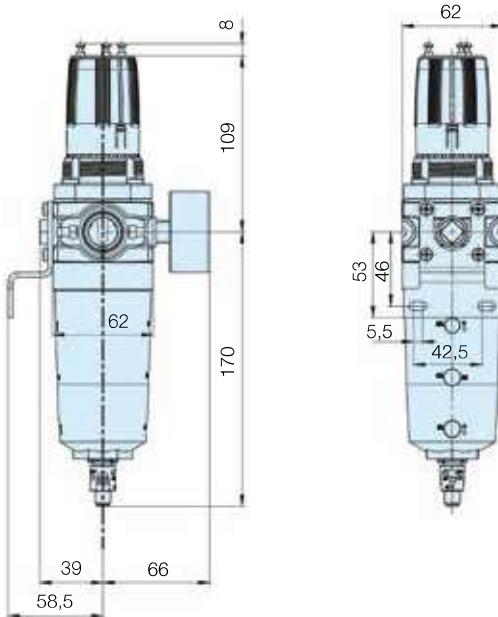
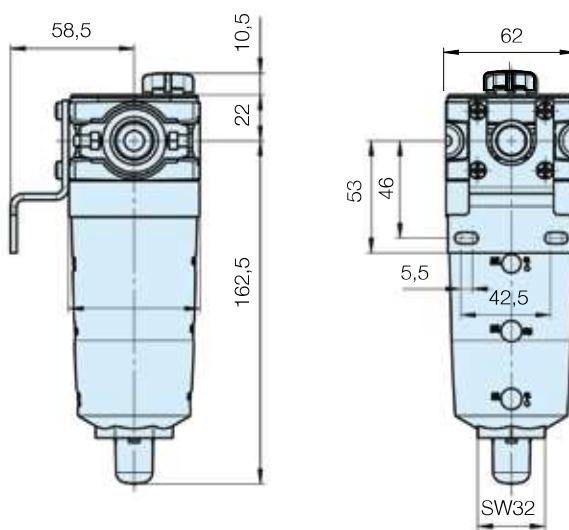
Modular Manifold

Description	Order code BSPP	Order code NPT	Weight (g)
G1/2"	P3XMA1V0N	P3XMA9V0N	170
G3/4"	P3XMA160N		170



Dimensions (mm)**Filters****Regulators****Service kits**

Description	Order code
Adsorber element kit	P3XKA00ESA
0.01 micron element kit	P3XKA00ESC
1 micron element kit	P3XKA00ES9
5 micron element kit	P3XKA00ESE
40 micron element kit	P3XKA00ESG
Bowl kit with combined manual/semi auto drain	P3XKA00BSC
Bowl kit with auto drain	P3XKA00BSA
Diaphragm kit (relieving type)	P3XKA00RR
Diaphragm kit (non-relieving type)	P3XKA00RN
Connecting kit	P3XKA00CB

Filter/Regulators**Lubricators****Accessories**

Description	Order code
Connector kit	P3XKA00CB
Connector O'ring kit (5)	P3XKA04CY
Tamper-proof knob kit (keylock)	P3XKA00AS
Wall bracket kit	P3XKA00MW
Panel mount nut	P3XKA00MM

- Removes water vapour & lowers the PDP
- Compact design
- No electrical connections necessary
- Suitable for hazardous environments
- No moving parts
- Maintenance & wear free
- No change in air consumption
- Low pressure drop less than 0.1 bar
- Minimal purge air consumption
- Modular design - compatible with the P3X air prep series



Operating information

Operating pressure range:	5 to 16 bar
Temperature range:	2 °C to 60 °C
Pressure drop:	0.1 bar
Purge air (at 20K PDP reduction):	10%
Max Flow at inlet (size 50):	2800 l/m

Note:

For optimum system performance and maintenance free conditions, Parker recommend the dryer is preceded with a 5 micron and 0.01 coalescer filter from the P3X series.

Membrane dryer

Port size	Size	Description	Order Code
G1/2	10	Membrane dryer with return tube - size 10	P3XJA14CA1N
G1/2	15	Membrane dryer with return tube - size 15	P3XJA14CB1N
G1/2	20	Membrane dryer with return tube - size 20	P3XJA14CC1N
G1/2	25	Membrane dryer with return tube - size 25	P3XJA14CD1N
G1/2	35	Membrane dryer serial type - size 35	P3XJA14CE1N
G1/2	50	Membrane dryer serial type - size 50	P3XJA14CF1N



Note: For NPT threaded connections replace the 6th digit from a 1 to 9 ie: **P3XJA94CA1N**

Wall mounting bracket kit

Order Code	Note:
P3XKA00MWD	For optimum system performance and maintenance free conditions, Parker recommend the dryer is preceded with a 5 micron and 0.01 coalescer filter from the P3X series.

Complete Filter / Dryer System combinations available on request



F + Fc + MD

F + Fc + MD + R

F + Fc + MD + R + Fa

Selection Criteria

To correctly select the dryer best suited for your application, the following information is required to ensure optimum performance and trouble free operation.

- Maximum inlet pressure dew point (°C)
- Outlet PDP (°C)
- Working pressure (bar)
- Maximum inlet flow rate (m³/h)

Conversion factor for calculation of corrected flow rate

Operating pressure range p (bar)	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor f _p	0.57	0.78	1.0	1.21	1.42	1.64	1.85	2.06	2.28	2.49	2.70	2.92

Working Example:

Selecting a dryer with an inlet pressure dew point of 35°C, a PDP reduction of 35K with a working / operating pressure of 6 bar and an inlet flow of 11 m³/h.

Step 1

From the correction factor table select the required pressure (6 bar) and read below the corrected factor value (0.78)

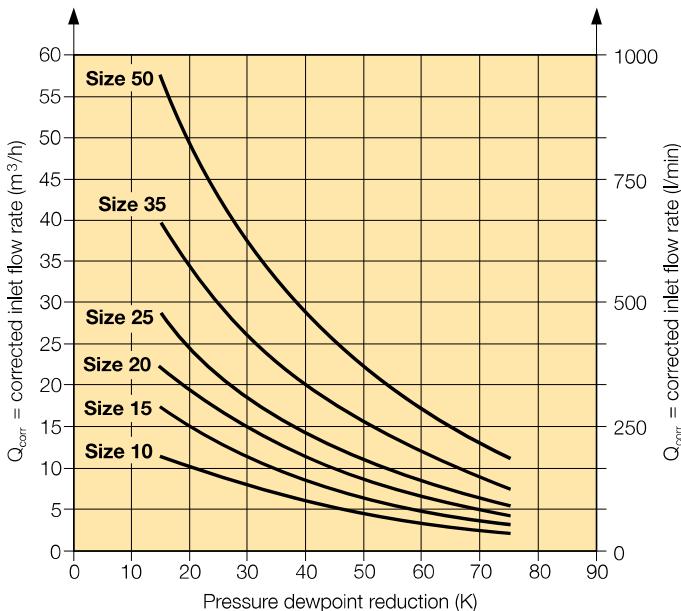
Step 2

To adjust the flow for your application, divide the required flow by the 0.78 correction factor

$$\text{Sizing capacity} = \frac{\text{Actual flow}}{\text{Correction factor}} = \frac{11 \text{ m}^3/\text{h}}{0.78} = 14.1 \text{ m}^3/\text{h}$$

Step 3

Plot the values on the selection graph (below). Where the dew point reduction value of 35K intersects with the corrected flow value of 14.1 m³/h, select the dryer flow curve which is equal or above the intersection point. For example: the optimum dryer would be **size 25 (P3XJA14CD1N)**



For the most demanding hi-flow industrial applications



The P3Y system allows units to be connected together, without the use of pipe connectors, saving space; providing constant mounting centres; whilst maintaining a modern aesthetically pleasing appearance.

The P3Y Filters are specially designed to efficiently filter out rust, dirt, moisture and other impurities from compressed air lines. Operation is fully automatic with a minimum of pressure drop. Coalescing filters and adsorber filters for high purity air are also included in the P3Y series.

The P3Y Regulators are designed to provide quick response and accurate pressure regulation for the most demanding hi-flow industrial applications.

The rolling diaphragm was designed for long trouble-free operation and will not rupture or tear under high cycle or other demanding applications.



Selection of Filters



Standard Filter



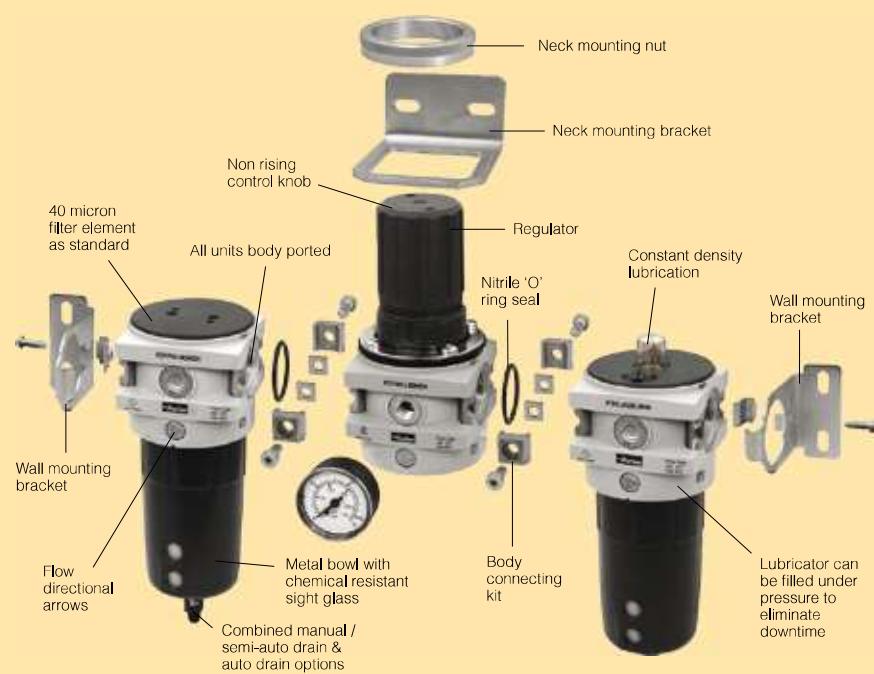
Coalescing Filter



Adsorber Filter



Dust Filter





DECLARATION



We **Parker Hannifin Manufacturing Austria GmbH**
Pneumatic Division
Dr. Alexander Schärfstrasse 12
2700 Wiener Neustadt
Austria

Product	Series	Category
Filter	P3YFA	for zone 1, 21
Regulator	P3YRA	for zone 1, 21
Filter regulator	P3YEÀ	for zone 1, 21
Lubricator	P3YLA	for zone 1, 21
Ball Valve	P3YVA	for zone 1, 21
Manifold	P3YMA	for zone 1, 21

For non-fitted solenoid product

Soft Start & Dump Valve	P3YTA	for zone 1, 21
Soft Start Valve	P3YSA	for zone 1, 21
Dump Valve	P3YDA	for zone 1, 21

Following Ignition Hazard Assessments performed on the non-electrical products listed above, in accordance with the requirements of EN 13463-1:2009, it was considered that the equipment does not contain its own source of ignition, and therefore is not within the scope of directive 94/9/EC.

The products can be used in a Group II Category 2 environment assuming that the ATEX Directive and the following conditions are complied with:

- Installation and maintenance of the product must be undertaken by qualified personnel.
- Do not mount the products in an area where impact may occur.
- Filters must be used to limit the introduction of particles and to capture particles generated in service.
- Supply air quality must be within ISO 8573-1:2010 Class 1.4.2.
- Maximum working temperature to be as stated on product label.
- WARNING – pulsating pressure and/or a closed circuit can generate heat.
- Deposits of dust on the product must not exceed 5mm thickness.
Refer to technical file for surface areas of plastics.
- The unit must be earthed via the compressed air supply line.
- The unit must not come into contact with liquid solvents, acids or alkalis.
Refer to technical file for chemicals known to be incompatible.
Product cleaning must be undertaken using a method complying with the specification of the ATEX zone, preferably by using mild soap and water or antistatic products.
- **Regulators, Filter Regulators:**
Do not use Regulators or Filter Regulators within systems that can create vibration within the Regulator/Filter Regulator unit.
- **Solenoid Operated Valves:**
Are suitable for use in an ATEX environment, (Group II Category 2) providing ATEX approved solenoids are fitted.
- Technical file available on request.

Approved by:

A handwritten signature in black ink that reads 'E. Bauregger'.

E. Bauregger (Location Engineering Manager)

- Integral 3/4 or 1" ports (BSPP or NPT)
- High efficiency element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Secondary pressure ranges 12 and 16 bar
- Rolling diaphragm for extended life
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Low temperature -40°C with Regulators/Filters and Filter Regulators using combined manual/semi auto drain as standard without pressure gauge.



Operating information

Working pressure:	Max 17.5 bar
Working temperature:	-40 °C to +60 °C

Flow characteristics

Flow dm ³ /s	3/4	1"
Filter	116	119
Dust Filter	137	145
Coalescing Filter	49	59
Adsorber Filter	47	50
Regulator	155	321
Filter Regulator	190	237
Lubricator	162	184

Filters - 40 micron element

Port size	Description	Order Code
G3/4	Manual drain/Semi auto	P3YFA16GSCN
G3/4	Auto drain	P3YFA16GSAN
G1"	Manual drain / Semi auto	P3YFA18GSCN
G1"	Auto drain	P3YFA18GSAN
	Mounting bracket	P3YKA00CW

Dust Filters - 1 micron element

Port size	Description	Order Code
G3/4	Manual drain/Semi auto	P3YFA162SCN
G3/4	Auto drain	P3YFA162SAN
G1"	Manual drain / Semi auto	P3YFA182SCN
G1"	Auto drain	P3YFA182SAN

Regulators - relieving type - non relieving options available

Port size	Description	Order Code
G3/4	12 bar relieving	P3YRA16BNEN
G3/4	12 bar relieving + gauge	P3YRA16BNFN
G1"	12 bar relieving	P3YRA18BNEN
G1"	12 bar relieving + gauge	P3YRA18BNFN
G3/4	12 bar relieving, lockable	P3YRA16BAEN
G3/4	12 bar relieving, lockable + gauge	P3YRA16BAFN
G1"	12 bar relieving, lockable	P3YRA18BAEN
G1"	12 bar relieving, lockable + gauge	P3YRA18BAFN

Pressure Gauges

	Order Code
0 - 10 bar	KG8012-00
0 - 16 bar	KG8013-00

Coalescing Filters - 0.01 micron element

Port size	Description	Order Code
G3/4	Coalescing 0.01µm, manual/semi auto drain	P3YFA16DSCN
G3/4	Coalescing Filter 0.01µm, auto drain	P3YFA16DSAN
G1"	Coalescing 0.01µm, manual/semi auto drain	P3YFA18DSCN
G1"	Coalescing Filter 0.01µm, auto drain	P3YFA18DSAN

Adsorber Filters

Port size	Description	Order Code
G3/4	Adsorber, manual drain	P3YFA16ASCN
G1"	Adsorber, manual drain	P3YFA18ASCN

Lubricators

Port size	Description	Order Code
G3/4	Oil mist, fill under pressure	P3YLA16LSNN
G1"	Oil mist, fill under pressure	P3YLA18LSNN

Filter/Regulators - relieving type - non relieving options available

Port size	Description	Order Code
G3/4	12 bar, relieving manual/semi auto drain	P3YEA16GSCBNEN
G3/4	12 bar, relieving auto drain	P3YEA16GSABNEN
G3/4	12 bar, relieving manual/semi auto + gauge	P3YEA16GSCBNFN
G3/4	12 bar, relieving auto drain + gauge	P3YEA16GSABNFN
G1"	12 bar, relieving manual/semi auto drain	P3YEA18GSCBNEN
G1"	12 bar, relieving auto drain	P3YEA18GSABNEN
G1"	12 bar, relieving manual/semi auto + gauge	P3YEA18GSCBNFN
G1"	12 bar, relieving auto drain + gauge	P3YEA18GSABNFN

Combined Soft Start Dump Valve and Remote Operated Dump Valve

Port size	Description	Order Code
G3/4	Solenoid operated (not included)	P3YTA16SCN0000
G3/4	24VDC 22mm coil	P3YTA16SCNB2CN
G3/4	Air pilot operated	P3YTA16PPN
G1"	Solenoid operated (not included)	P3YTA18SCN0000
G1"	24VDC 22mm coil	P3YTA18SCNB2CN
G1"	Air pilot operated	P3YTA18PPN

Soft Start Valve

Port size	Description	Order Code
G3/4	Soft start valve	P3YSA16Y0N
G1"	Soft start valve	P3YSA18Y0N

Neck mounting bracket kit

Description	Order Code
Neck mounting bracket kit	P3YKA00MS

Wall mounting brackets

Description	Order Code
Wall mounting brackets	P3YKA00CW

Pilot Operated Regulator

Port size	Description	Order Code
G3/4	Pilot operated regulator	P3YRA16BPPN
G1"	Pilot operated regulator	P3YRA18BPPN

Modular Ball Valve

Port size	Description	Order Code
G3/4	Modular Ball Valve	P3YVA16LBN
G1"	Modular Ball Valve	P3YVA18LBN

Modular Manifold

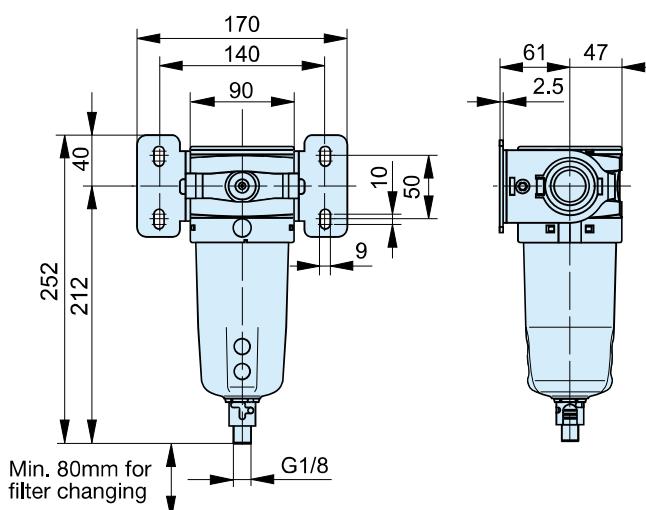
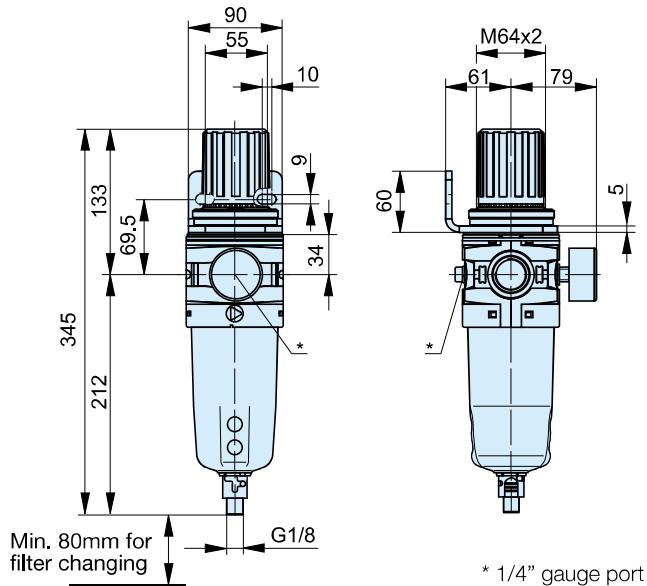
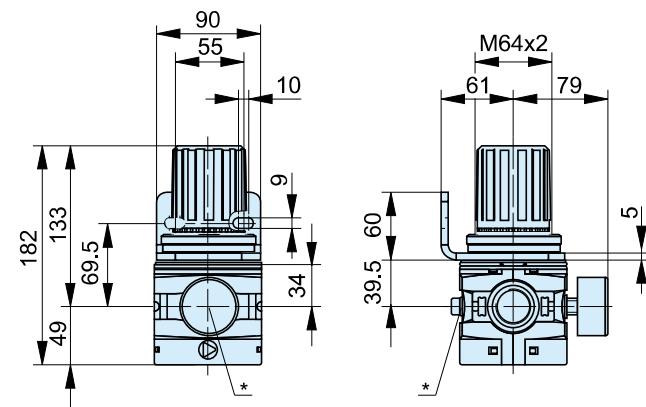
Port size	Description	Width	Order Code
G3/4	Modular Manifold	(80 mm)	P3YMA1V0N
G1"	Modular Manifold	(80 mm)	P3YMA9V0N
G3/4	Modular Manifold	(35 mm)	P3YMA16024N

Optional Port Block Kits

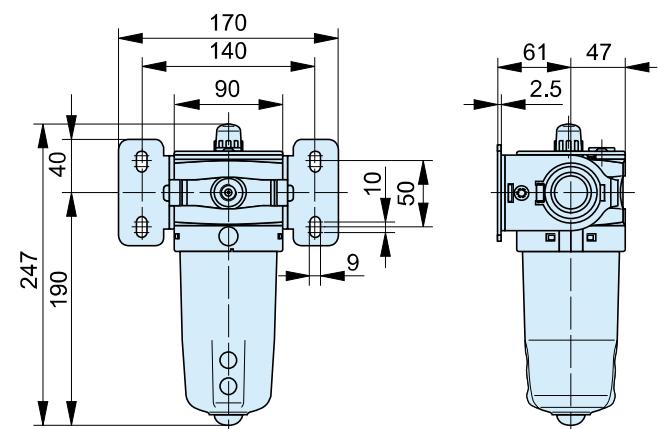
Port size	Description	Order Code
G1 1/4"	Port block kit - BSPP	P3YKA1ACP
G1 1/2"	Port block kit - BSPP	P3YKA1BCP
G3/4"	Port block kit - BSPP	P3YKA16CP
G1"	Port block kit - BSPP	P3YKA18CP

Connector kit

Description	Order Code
Connector kit	P3YKA00CB

Dimensions (mm)**Filters****Filter/Regulators****Regulators**

* 1/4" gauge port

Lubricators**Service kits**

Description	Order code
5 micron element kit	P3YKA00ESE
40 micron element kit	P3YKA00ESG
Bowl kit with combined manual/semi auto drain	P3YKA00BSC
Bowl kit with auto drain	P3YKA00BSA
Key Lock Kit	P3XKA00AS
Diaphragm kit (relieving type)	P3YKA00RR
Diaphragm kit (non-relieving type)	P3YKA00RN
Angle bracket + metal lock ring	P3YKA00MS
Panel mount nut	P3YKA00MM



DECLARATION



We **Parker Hannifin Manufacturing Austria GmbH**
Pneumatic Division
Dr. Alexander Schärfstrasse 12
2700 Wiener Neustadt
Austria

Product

Filter
 Regulator
 Lubricator
 Manifold

Series

P3ZFA
 P3ZRA
 P3ZLA
 P3ZMA

Category

for zone 1, 21
 for zone 1, 21
 for zone 1, 21
 for zone 1, 21

For non-fitted solenoid product

Soft Start & Dump Valve
 Soft Start Valve
 Dump Valve

P3ZTA
 P3ZSA
 P3ZDA

for zone 1, 21
 for zone 1, 21
 for zone 1, 21

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- Filters must be used to limit the introduction of particles and to capture particles generated in service.
- Supply air quality must be within ISO 8573-1:2010 Class 1.4.2.
- Maximum working temperature to be as stated on product label.
- WARNING – pulsating pressure and/or a closed circuit can generate heat.
- Deposits of dust on the product must not exceed 5mm thickness.
 Refer to technical file for surface areas of plastics.
 The unit must be earthed via the compressed air supply line.
- The unit must not come into contact with liquid solvents, acids or alkalis.
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- **Regulators, Filter Regulators:**
 Do not use Regulators or Filter Regulators within systems that can create vibration within the Regulator/Filter Regulator unit.
- **Solenoid Operated Valves:**
 Are suitable for use in an ATEX environment, (Group II Category 2) providing ATEX approved solenoids are fitted.
- Technical file available on request.

Approved by:

E. Bauregger (Location Engineering Manager)



The all metal P3Z Series FRLs are ideal for most medium sized ring main installations.



- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Threaded port flange available to G1-1/2" and G2"
- Proportional oil delivery over a wide range of air flows.

Operating information

Working pressure:	0 - 17.5 bar
Working temperature:	0 °C to +60 °C

Flow characteristics

Flow	Filter	>666,6 dm ³ /s
	Regulator	>666,6 dm ³ /s
	Lubricator	>666,6 dm ³ /s

For more information see www.parker.com/euro_pneumatic



Filters

Port size	Description	Order Code
-	40µ auto drain without flange SAE	P3ZFA00HMAN
G1.1/2"	40µ auto drain flange fitted to SAE	P3ZFA1BMAN
G2"	40µ auto drain flange fitted to SAE	P3ZFA1CHMAN



Coalescing Filters

Port size	Description	Order Code
-	0.01 micron, auto drain	P3ZFA00DMAN
G1.1/2"	0.01 micron, auto drain, flange fitted to SAE	P3ZFA1BDMAN
G2"	0.01 micron, auto drain, flange fitted to SAE	P3ZFA1CDMAN



Dust Filters

Port size	Description	Order Code
-	1µ auto drain (pressure relief) without flange SAE	P3ZFA00MMAN
G1.1/2"	1µ auto drain (pressure relief) flange fitted to SAE	P3ZFA1BMMAN
G2"	1µ auto drain (pressure relief) flange fitted to SAE	P3ZFA1CMMAN



Adsorber Filters

Port size	Description	Order Code
-	Adsorber, auto drain	P3ZFA00BMAN
G1.1/2"	Adsorber, auto drain	P3ZFA1BBMAN
G2"	Adsorber, auto drain	P3ZFA1CBMAN



Regulators

Port size	Description	Order Code
-	8 bar, relieving + gauge, without flange SAE	P3ZRA00BNGN
G1.1/2"	8 bar, relieving + gauge	P3ZRA1BBNGN
G2"	8 bar, relieving + gauge	P3ZRA1CBNGN
-	16 bar relieving + gauge, without flange SAE	P3ZRA00BNJN
G1.1/2"	16 bar, relieving + gauge	P3ZRA1BBNJN
G2"	16 bar, relieving + gauge	P3ZRA1CBNJN



Regulators Pilot Control

Port size	Description	Order Code
-	16 bar, air pilot	P3ZRA00BPPN
G1.1/2"	16 bar, relieving + gauge	P3ZRA1BBPPN
G2"	16 bar, relieving + gauge	P3ZRA1CBPPN

Combined Soft Start Dump Valve and Remote Operated Dump Valve

Port size	Description	Order Code
-	Solenoid operated (not included)	P3ZTA00SCN0000
-	24VDC 22mm coil	P3ZTA00SCNB2CN
G1.1/2"	Solenoid operated (not included)	P3ZTA1BSCN0000
G1.1/2"	24VDC 22mm coil	P3ZTA1BSCNB2CN
G2"	Solenoid operated (not included)	P3ZTA1CSCN0000
G2"	24VDC 22mm coil	P3ZTA1CSCNB2CN

Soft Start Valve

Port size	Description	Order Code
-	Internal air pilot operated	P3ZSA00Y0N
G1.1/2"	Internal air pilot operated	P3ZSA1BY0N
G2"	Internal air pilot operated	P3ZSA1CY0N

Lubricators

Port size	Description	Order Code
-	Lubricator, without flange SAE	P3ZLA00LSMN
G1.1/2"	Lubricator	P3ZLA1BLSMN
G2"	Lubricator	P3ZLA1CLSMN
G2"	Central airline lubricator with electrical oil level control	P3ZLA1CEMMW
G2"	Central airline lubricator with aluminium bowl	P3ZLA1CMMMW
	Lubricator OIL - VG32 - 1 Litre	P3YKA00PPBB



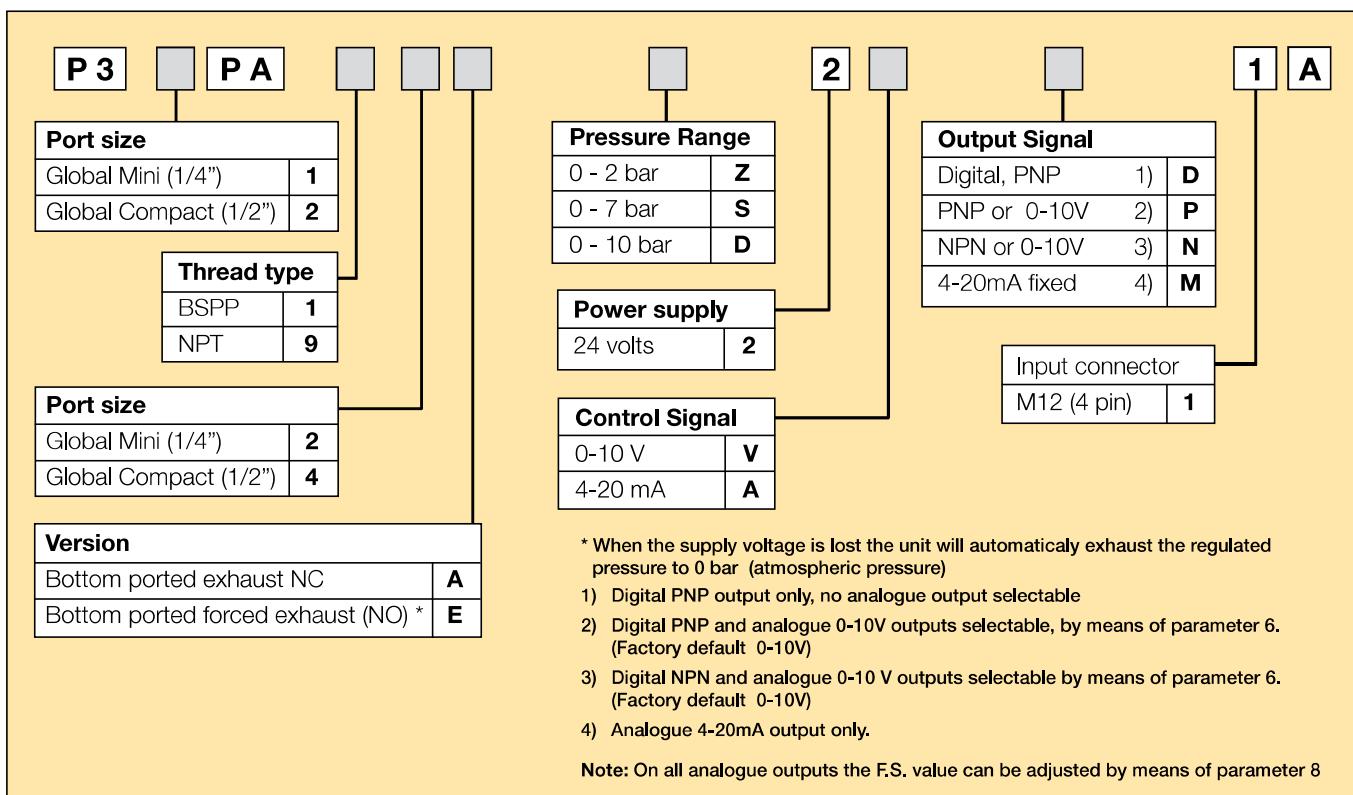
Options & Accessories

Port size	Description	Order Code
G1.1/2"	Connection flange kit	P3ZKA1BCP
G2"	Connection flange kit	P3ZKA1CCP
-	Wall mounting kit	P3ZKA00MW
-	Coupling kit	P3ZKA00CB
-	Coupling 'O' ring kit (5 off)	P3ZKA0CCY
-	Porting block kit (1", 1/8" & 2 x 1/4" take off)	P3ZMA1V0N

- Very fast response times
- Accurate output pressure
- Micro parameter settings
- Selectable I/O parameters
- Quick, full flow exhaust
- LED display indicates output pressure
- No air consumption in steady state
- Multiple mounting options
- Protection to IP65
- P31P flows to 19 dm³/s (40 scfm)
- P32P flows to 57 dm³/s (120 scfm)

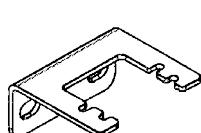
P31PA Series
Bottom exhaustP32PA Series
Bottom exhaust

Order Key

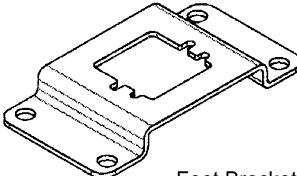


P31P Mounting brackets

Order Code	Description
P3HKA00ML	L-Bracket mounting kit
P3HKA00MC	Foot bracket mounting kit



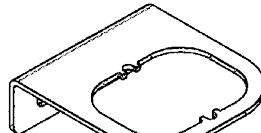
L-Bracket



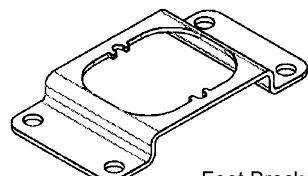
Foot Bracket

P32P Mounting brackets

Order Code	Description
P3KKA00ML	L-Bracket mounting kit
P3KKA00MC	Foot bracket mounting kit



L-Bracket



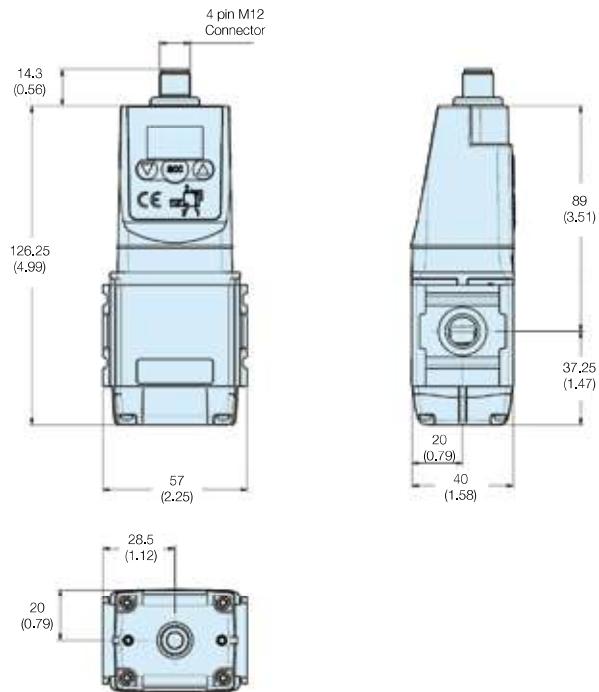
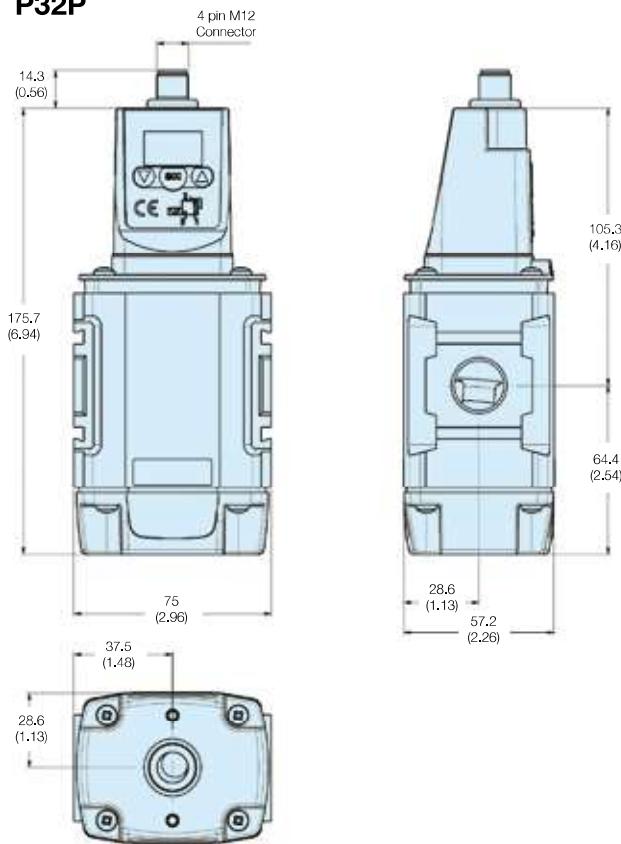
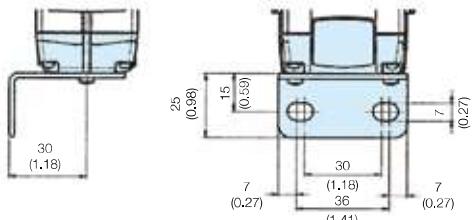
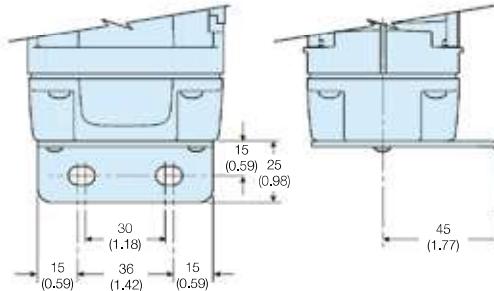
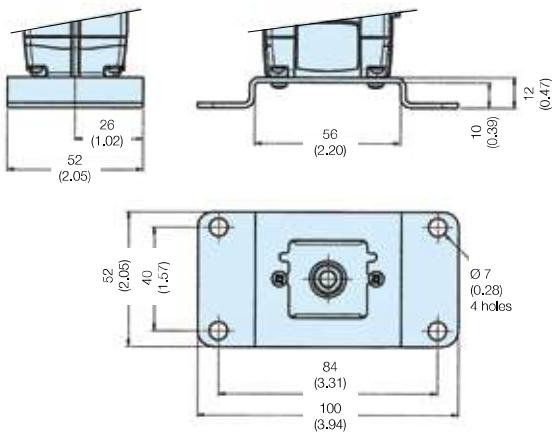
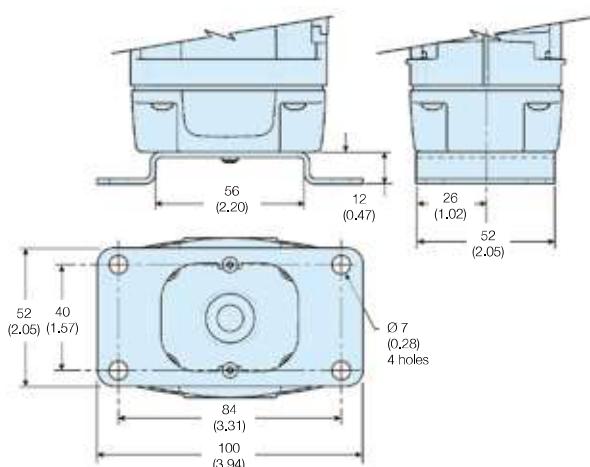
Foot Bracket

Cables

Order Code	Description
P8L-MC04A2A-M12	2 mtr. cable with moulded straight M12x1 connector
P8L-MC04R2A-M12	2 mtr. cable with moulded 90 degree M12x1 connector.

Note:

These brackets fit both Proportional Regulators and Combined Soft Start & Dump Valves.

P31P**P32P****L-Bracket****L-Bracket****Foot Bracket****Foot Bracket**

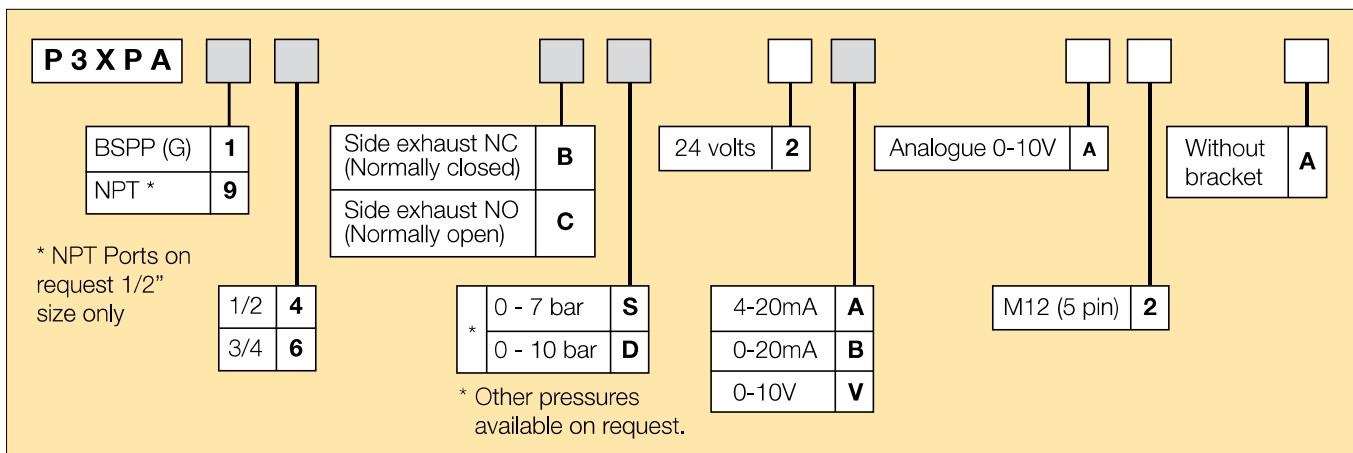
Dimensions are in mm (Inches)

P3X Proportional Pressure Regulator



- Integral 1/2" or 3/4" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design.

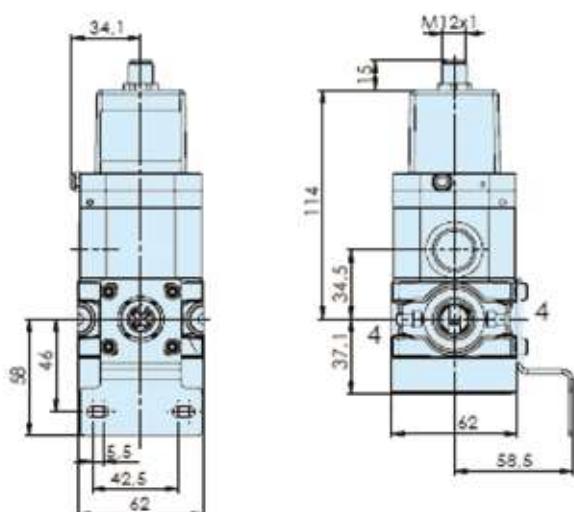
Options:



Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1/2	Normally closed	P3XPA14BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	0.75
3/4	Normally closed	P3XPA16BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	0.75

Dimensions (mm)



* Two opposite gauge ports G1/4, plug screw mounted

** Connection for 5-pin plug M12 x 1

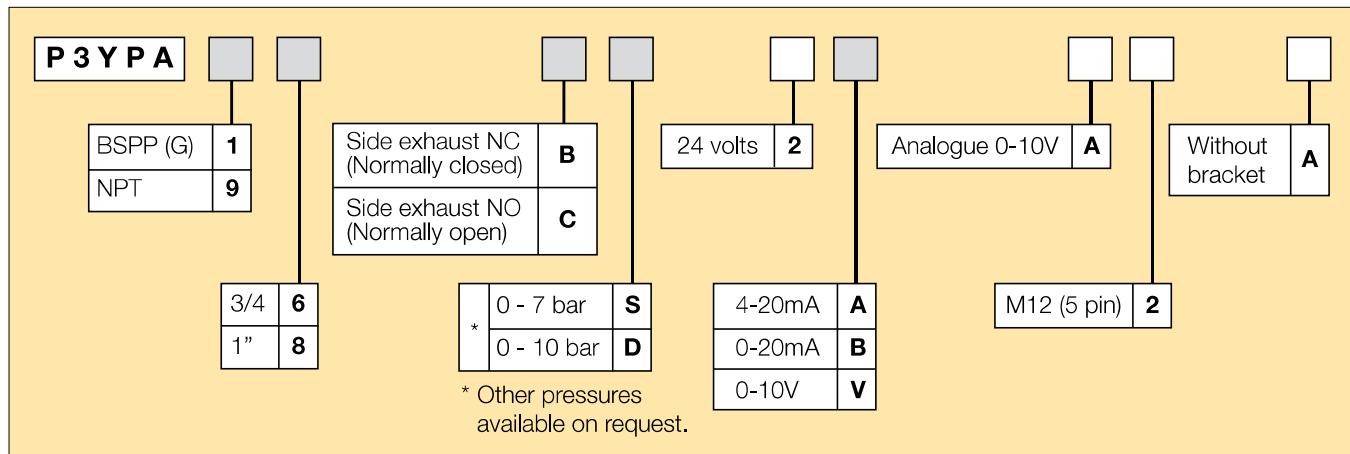
*** Exhaust port 1/2"

P3Y Proportional Pressure Regulator



- Integral 3/4 or 1" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust but lightweight design.

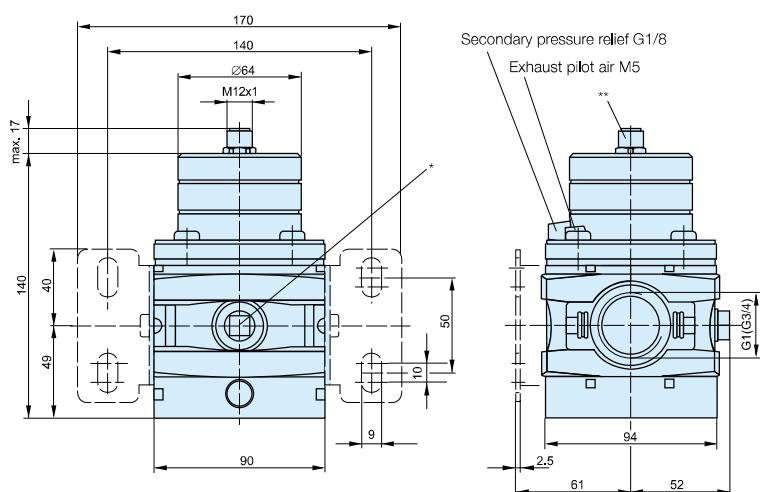
Options:



Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
3/4	Normally closed	P3YPA16BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2
1"	Normally closed	P3YPA18BD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2

Dimensions (mm)



* Two opposite gauge ports G1/4, plug screw mounted

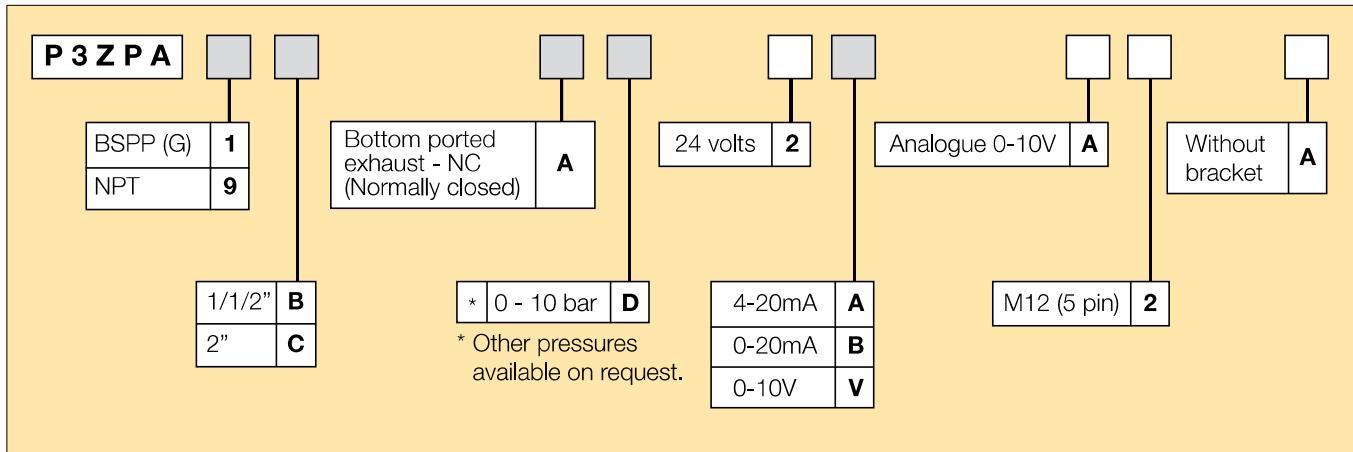
** Connection for 5-pin plug M12 x 1

P3Z Proportional Pressure Regulator



- Flanged 1-1/2" or 2" ports (BSPP & NPT)
- Accurate output pressure
- Very fast response times
- Robust die-cast aluminium construction

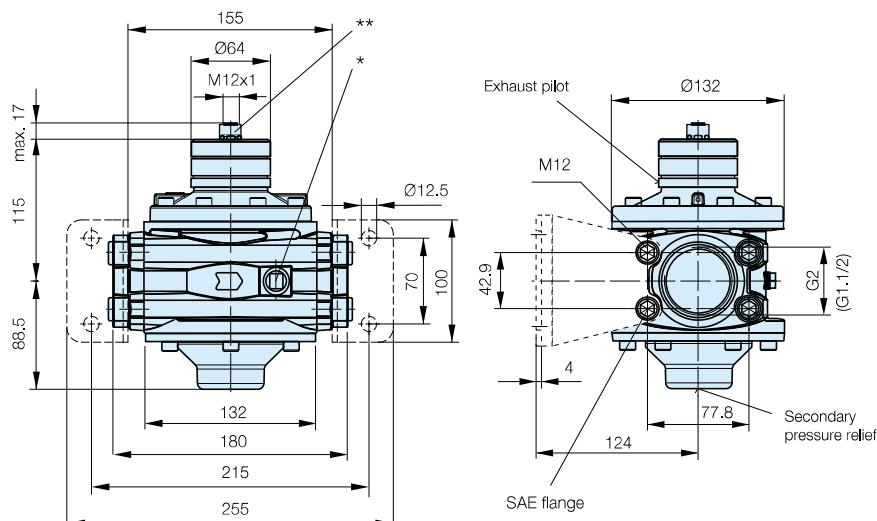
Options:



Popular options:

Port size	Description	Order Code	Control signal	Output signal	Output pressure	Weight kg
1-1/2"	Normally closed	P3ZPA1BAD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2
2"	Normally closed	P3ZPA1CAD2VA2A	0 - 10 V	0 - 10 V	0 - 10 bar	1.2

Dimensions (mm)



* Two opposite gauge ports G1/4, plug screw mounted

** Connection for 5-pin plug M12 x 1

Lucifer® EPP4 Basic and Comfort 1/4"
and 1/2" Technical Data

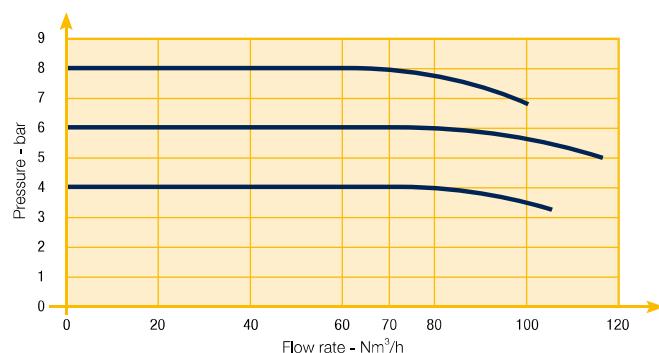
	Basic 1/4"	Basic 1/2"
Fluids:	Lubricated or non lubricated air and neutral gases Recommended filtration: 50 µm	
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar
Outlet pressure range:	0.05 to 10 bar	
Hysteresis:	± 50 mbar (factory set up)	
Air consumption at constant control signal:	0	
Supply voltage:	24 V DC ± 15 % (Max. ripple 1 V)	
Power consumption:	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal	
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA	
Max. flow: Indicative response time: With a volume of 300 cm ³ at the outlet of the regulator	70 m ³ /h	150 m ³ /h
Filling 2 to 4 bar: Filling 2 to 8 bar: Emptying 4 to 2 bar: Emptying 8 to 2 bar:	50 msec 100 msec 70 msec 130 msec	60 msec 120 msec 90 msec 190 msec
Safety position:	In case of control signal failure or if it is less than 50mV, the regulated pressure drops automatically to 0 bar (atmospheric pressure). In case of voltage supply failure, the regulated pressure will be kept constant.	
Electrical connection:	M12 - 4 pin; 4 x 0.34 mm ²	
Life expectancy:	> 50 Million changes of control signal steps	
Mounting position:	Indifferent (recommended position: upright; electronic part on top)	
Resistance to vibrations:	30 g in all directions	
Degree of protection:	IP 65	
Assembly:	Silicone free	
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 EN 61000-6-4: 2001	
Installation and setting instructions:	See our "Notice 408038, 408014" and appendix supplied with the product.	

Note: Parker reserves the right to change specifications without notification.

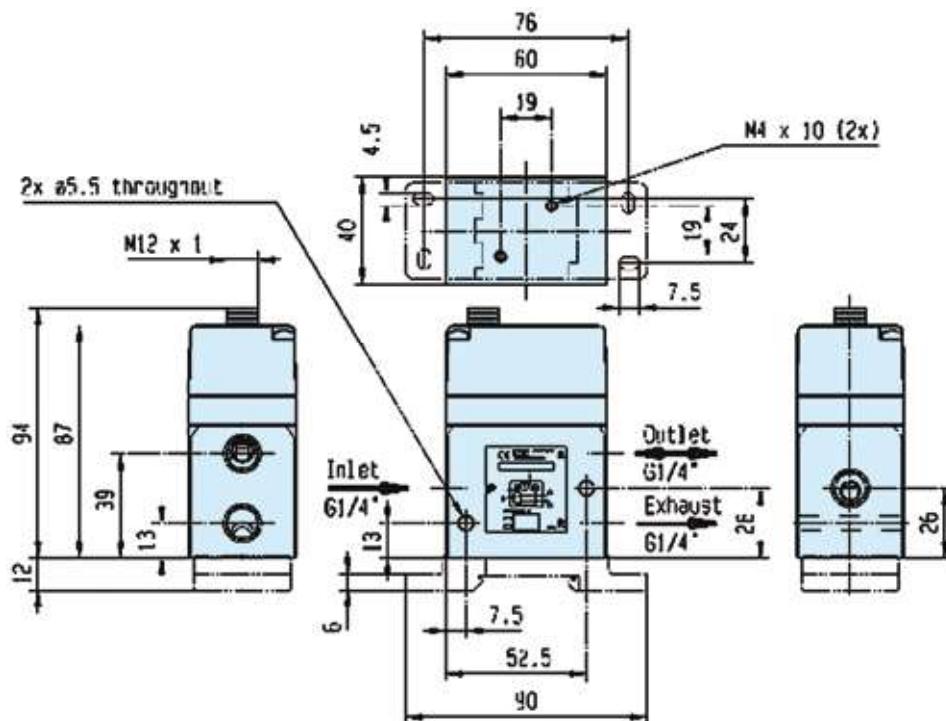
EPP4 Pressure Regulator Basic G 1/4"



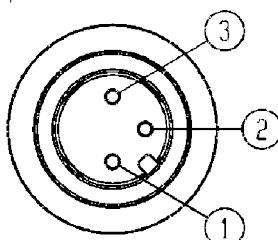
Flow Curve 1/4"



Dimensions

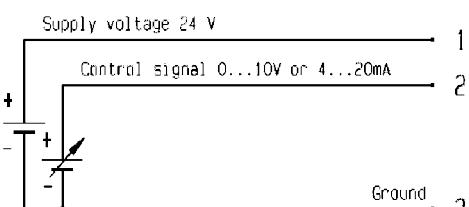


The male connector adopted on the EPP4 is a standard 4 pole M12, without the pin number 4:



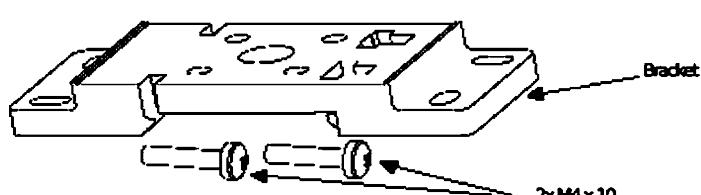
The female connector to mount is the 4 pole M12 connector (IEC 61076-2-101 model LF) where the pin number 4 is not connected.

ELECTRICAL CONNECTION



Accessories

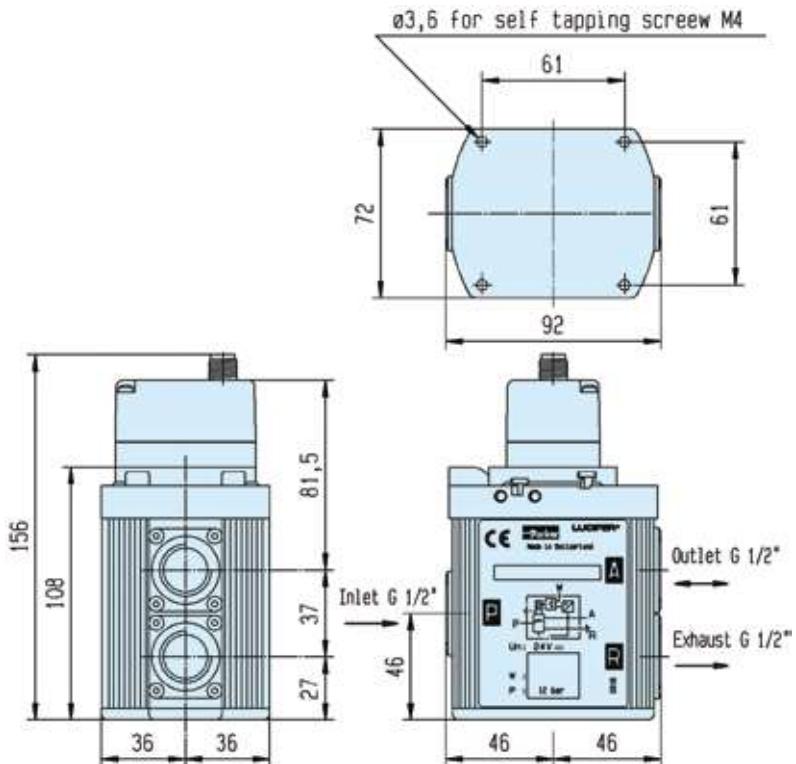
Mounting bracket
(automatically supplied with each EPP4)



EPP4 Pressure Regulator Basic G 1/2"



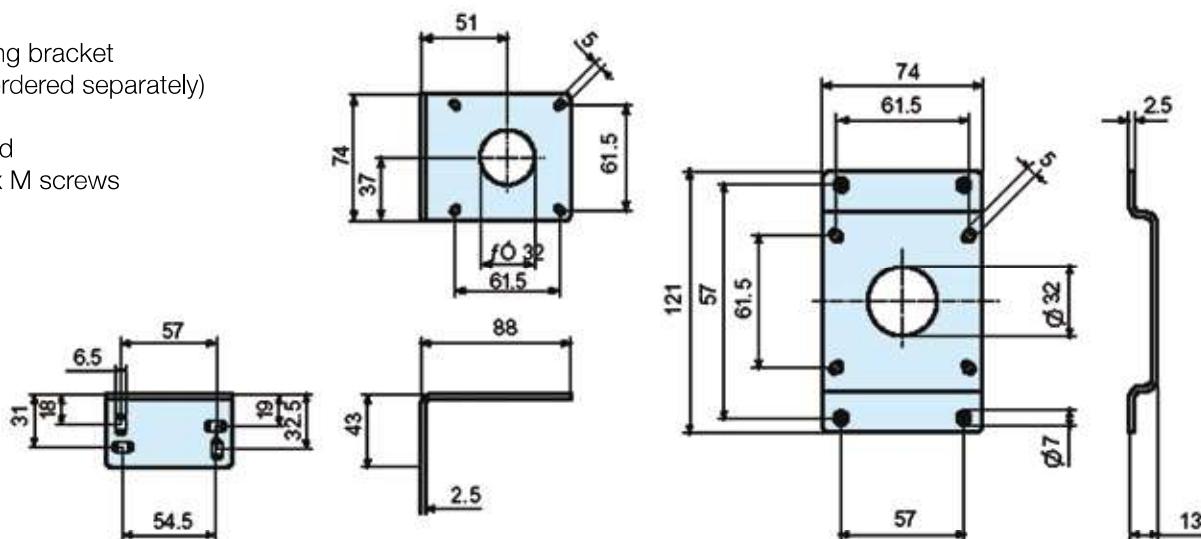
Dimensions



Accessories

Mounting bracket
(to be ordered separately)

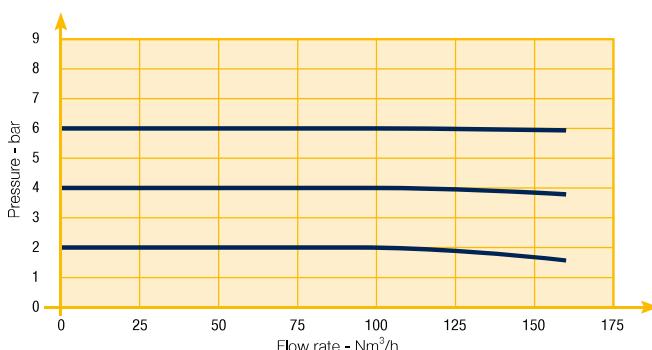
Supplied
with 4 x M screws



491367

491366

Flow Curve 1/2"



EPP4 Pressure Regulator Basic
G 1/4" and G 1/2"

Order code	Pipe	Pressure Range (bar)		Control Signal (see options)
P4BG2001A001	G 1/4"	0	4 bar	4 - 20 mA
P4BG2001A002	G 1/4"	0	10 bar	0 - 10 V
P4BG2001A003	G 1/4"	0	10 bar	4 - 20 mA
P4BG2001A004	G 1/4"	0	6 bar	0 - 10 V
P4BG2001A005	G 1/4"	0	6 bar	4 - 20 mA
P4BG2001A006	G 1/4"	0	5 bar	0 - 10 V
P4BG2001A007	G 1/4"	0	5 bar	4 - 20 mA
P4BG2001A008	G 1/4"	0	7 bar	0 - 10 V
P4BG2001A009	G 1/4"	0	7 bar	4 - 20 mA
P4BG2003A002 *	G 1/4"	0	10 bar	0 - 10 V
P4BG2003A003 *	G 1/4"	0	10 bar	4 - 20 mA
P4BG4001A002	G 1/2"	0	10 bar	0 - 10 V
P4BG4001A003	G 1/2"	0	10 bar	4 - 20 mA
P4BG4001A004	G 1/2"	0	6 bar	0 - 10 V
P4BG4001A005	G 1/2"	0	6 bar	4 - 20 mA
P4BG4001A006	G 1/2"	0	5 bar	0 - 10 V
P4BG4001A007	G 1/2"	0	5 bar	4 - 20 mA
P4BG4001A008	G 1/2"	0	7 bar	0 - 10 V
P4BG4001A009	G 1/2"	0	7 bar	4 - 20 mA
P4BG4004A010 ***	G 1/2"	0	4 bar	0 - 10 V
P4BG4051A002 **	G 1/2"	0	10 bar	4 - 20 mA
P4BN2001A002	NPT 1/4"	0	10 bar	4 - 20 mA
P4BN2001A003	NPT 1/4"	0	10 bar	0 - 10 V
P4BN4001A002	NPT 1/2"	0	10 bar	4 - 20 mA
P4BN4001A003	NPT 1/2"	0	10 bar	0 - 10 V

* Integrated pilot exhaust

** O2

*** External pressure supply



Lucifer® EPP4 Comfort 1/4" and 1/2"**References**

Order code	Pipe	Pressure Range (bar)	Control Signal (see options)	Display
P4CG2001C001	G 1/4	0 10	0-10 V	-
P4CG2001C002	G 1/4	0 10	4-20 mA	-
P4CG2001C005	G 1/4	0 7	0-10 V	-
P4CG2001C006	G 1/4	0 7	4-20 mA	-
P4CG2002C001	G 1/4	0 10	0-10 V	included
P4CG2002C002	G 1/4	0 10	4-20 mA	included
P4CG2003C001 *	G 1/4	0 10	0-10 V	-
P4CG2003C002 *	G 1/4	0 10	4-20 mA	-
P4CG2002C007	G 1/4	0 7	0-10 V	included
P4CG2002C008	G 1/4	0 7	4-20 mA	included
P4CN2001C001	1/4 NPT	0 10	0-10 V	-
P4CN2001C002	1/4 NPT	0 10	4-20 mA	-
P4CN2002C001	1/4 NPT	0 10	0-10 V	included
P4CN2002C002	1/4 NPT	0 10	4-20 mA	included
P4CG4001C001	G 1/2	0 10	0-10 V	-
P4CG4001C002	G 1/2	0 10	4-20 mA	-
P4CG4001C005	G 1/2	0 7	0-10 V	-
P4CG4001C006	G 1/2	0 7	4-20 mA	-
P4CG4002C001	G 1/2	0 10	0-10 V	included
P4CG4002C002	G 1/2	0 10	4-20 mA	included
P4CG4002C005	G 1/2	0 7	0-10 V	included
P4CG4002C006	G 1/2	0 7	4-20 mA	included
P4CG4051C001 **	G 1/2	0 10	0-10 V	-
P4CG4051C002 **	G 1/2	0 10	4-20 mA	-
P4CN4001C001	1/2 NPT	0 10	0-10 V	-
P4CN4001C002	1/2 NPT	0 10	4-20 mA	-
P4CN4002C001	1/2 NPT	0 10	0-10 V	included
P4CN4002C002	1/2 NPT	0 10	4-20 mA	included

* Integrated pilot exhaust

** O2



**Lucifer® EPP4 Comfort 1/2" High Pressure,
1"and 2" Technical Data**

	Comfort 1/2" HP	Comfort 1"	Comfort 2"
Fluids:	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm		
Temperature range:	Ambient: 0°C to +50°C Fluid: 0°C to +50°C		
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 21 bar	1 to 21 bar	1 to 12 bar
Outlet pressure range:	0.05 to 20 bar	0.05 to 20 bar	0.05 to 10 bar
Hysteresis:	≤ 100 mbar if P inlet ≤ 10 bar ≤ 200 mbar if P inlet > 10 bar		
Air consumption at constant control signal:	0		
Supply voltage:	24V DC ± 15%		
Power consumption:	Max. 6 W with 24 V DC and constant changes of the control signal < 2 W without change of control signal		
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA		
Outlet sensor signal:	Analog 0 - 10 V Standard for 0 - 10 bar; Adjustable Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable	Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-)	
Max. flow:	150 m³/h	1 000 m³/h	2 700 m³/h
Indicative response time:	With a volume of 330 cm³ at the outlet of the regulator		
Filling 2 to 8 bar: Emptying 8 to 2 bar:	120 msec 190 msec	250 msec 400 msec	250 msec 400 msec
Safety position:	In case of control signal failure or if it is less than 50 mV, the regulated pressure drops automatically to 0 bar atmospheric pressure (for pressure ranges from 0-10 bar, 100 mV for pressure range over 10 bar). In case of voltage supply failure, the regulated pressure will be kept constant.		
Electrical connection:	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication		
Life expectancy:	> 20 Million changes of control signal steps		
Mounting position:	Indifferent (recommended position: upright; electronic part on top)		
Resistance to vibrations:	30 g in all directions		
Degree of protection:	IP 65		
Assembly:	Silicone free		
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001		
Installation and setting instructions:	See our "408 193" and appendix supplied with the product.		

Note: Parker reserves the right to change specifications without notification.

Lucifer® EPP4 Comfort Options

Calys Software

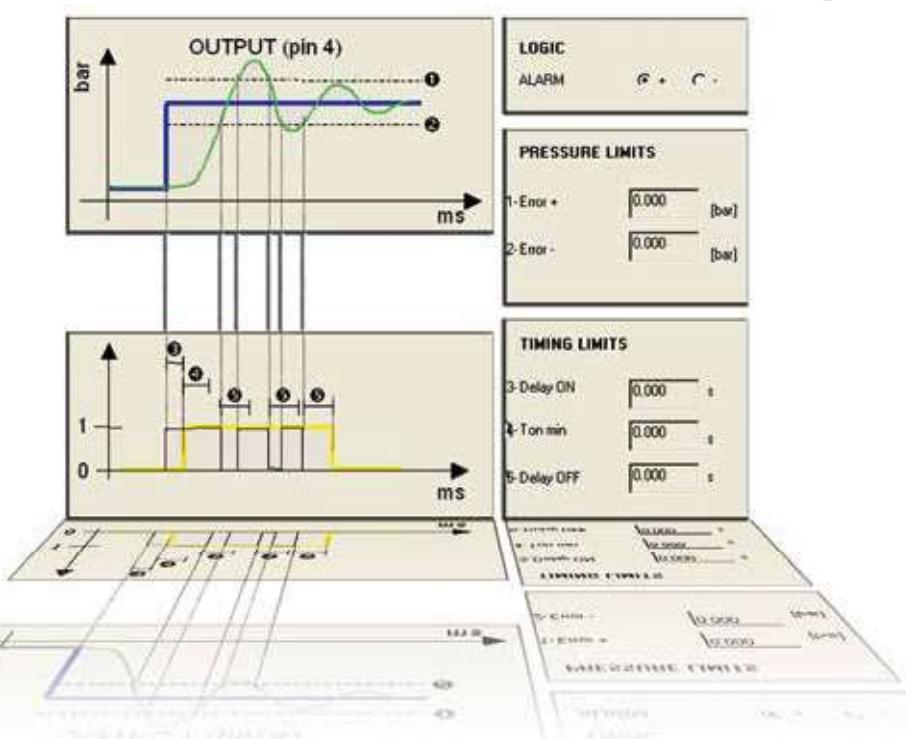
Calys is a unique software in house developed to configurate all the parameters of the EPP4 Comfort range. Calys is an option of the EPP4. A specific cable is needed for the communication between the EPP4 and a PC.

Calys offers the following features:

- Live monitoring (control signal, regulated pressure, supply voltage,...)
- Recording of the main parameters (control signal, regulated pressure, supply voltage,...) in an Excel file
- Free calibration for the inputs and outputs
- Adjustable alarm (positive-negative, pressure limits, delays)
- Configuration files easy to duplicate
- Complete and interactive help file
- Data in 4 different pressure units
- Menus in 4 languages (English, German, French and Italian)



calys



Specific communication cable PC-EPP4 with RS232 and USB connection

Order Reference 496449

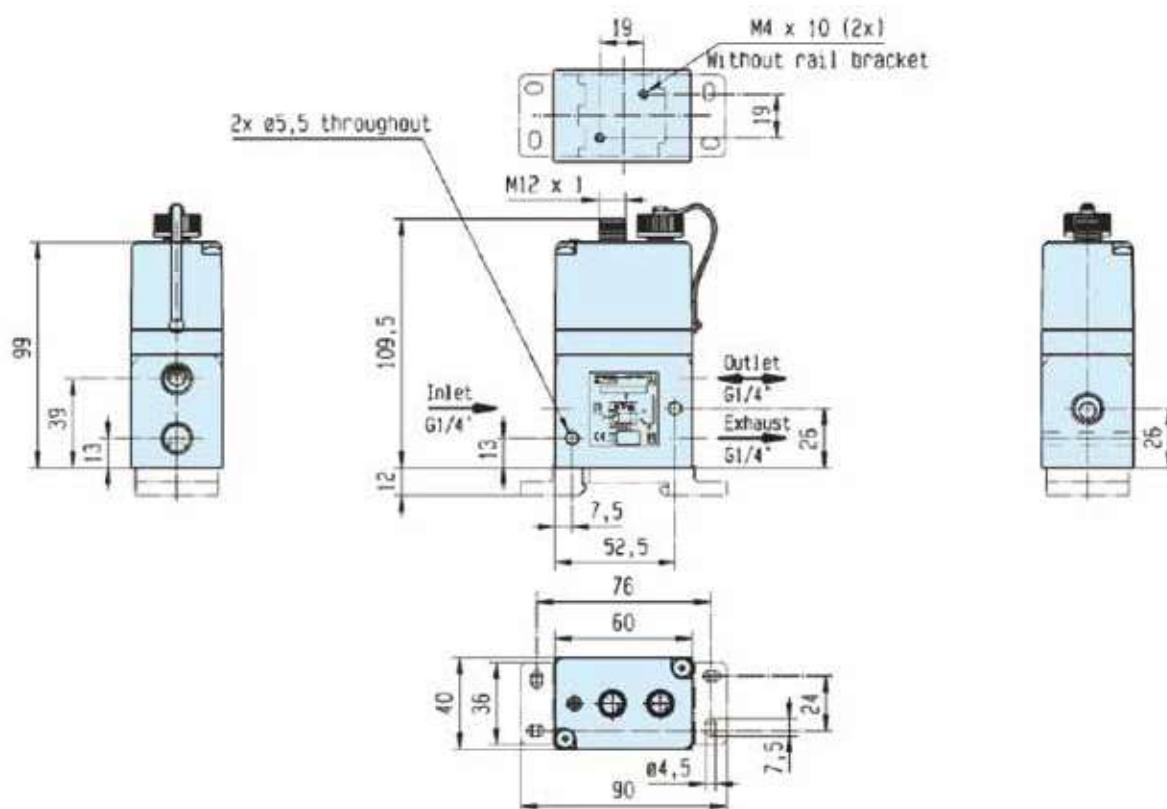
To download free Calys software click on
www.parker.com/FCDE/Support

Lucifer® EPP4 Comfort 1/2" HP, 1" and 2"**References**

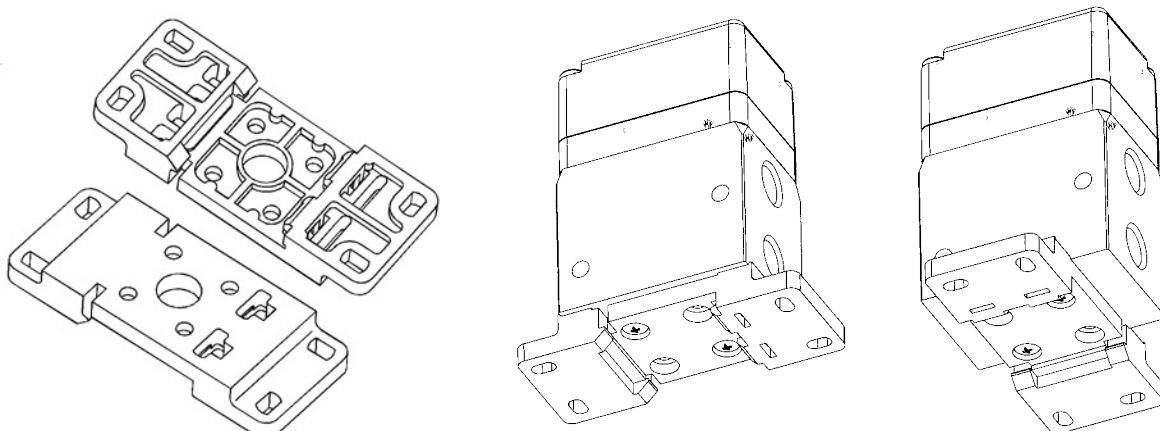
Order code	Pipe	Max inlet pressure (bar)	Pressure range (bar)	Control signal (see options)
P4CG4101D001	G1/2	15	0 12	0-10 V
P4CG4201D005	G1/2	21	0 16	0-10 V
P4CG4201D003	G1/2	21	0 20	0-10 V
P4CG4201D004	G1/2	21	0 20	4-20 mA
P4CG6101C009	G1	12	0 3.5	4-20 mA
P4CG6101C011	G1	12	0 5.0	0-10 V
P4CG6101C010	G1	12	0 6.0	4-20 mA
P4CG6101C001	G1	12	0 10	0-10 V
P4CG6101C002	G1	12	0 10	4-20 mA
P4CG6201D001	G1	21	0 12	-
P4CG6201D003	G1	21	0 20	0-10 V
P4CG9101C012	G2	12	0 4.0	4-20 mA
P4CG9101C010	G2	12	0 6.0	4-20 mA
P4CG9101C001	G2	12	0 10	0-10 V
P4CG9101C002	G2	12	0 10	4-20 mA

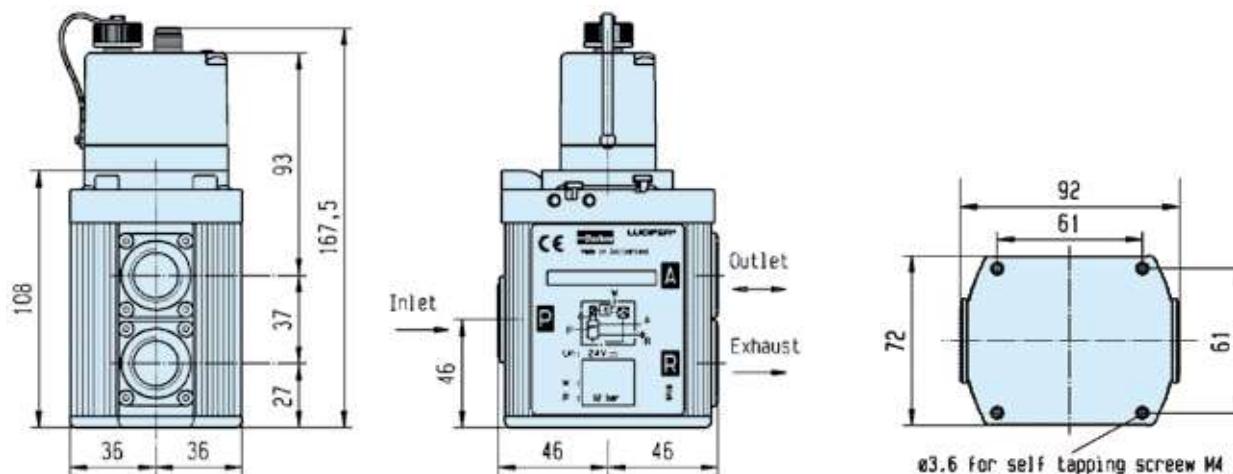
Other specific settings or specialties are available, please contact us.



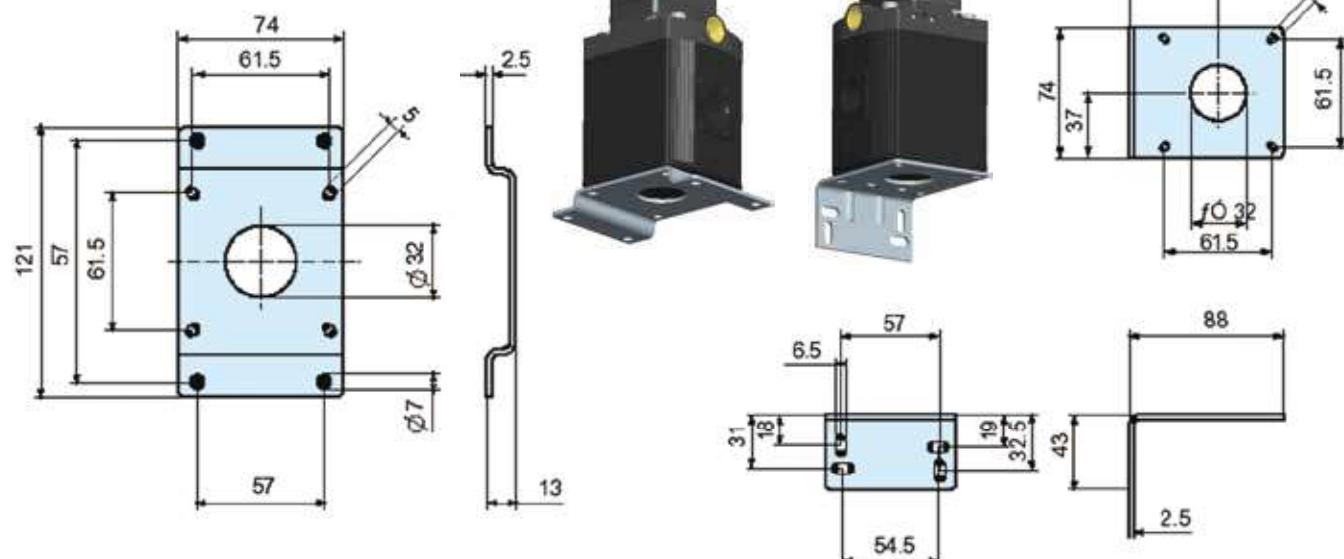
Lucifer® EPP4 Comfort Range 1/4"**Dimensions****Accessories**

Mounting bracket
(supplied as a standard with each Lucifer® EPP4 1/4")



Lucifer® EPP4 Comfort Range 1/2"**Dimensions****Accessories**

Mounting brackets to be ordered separately



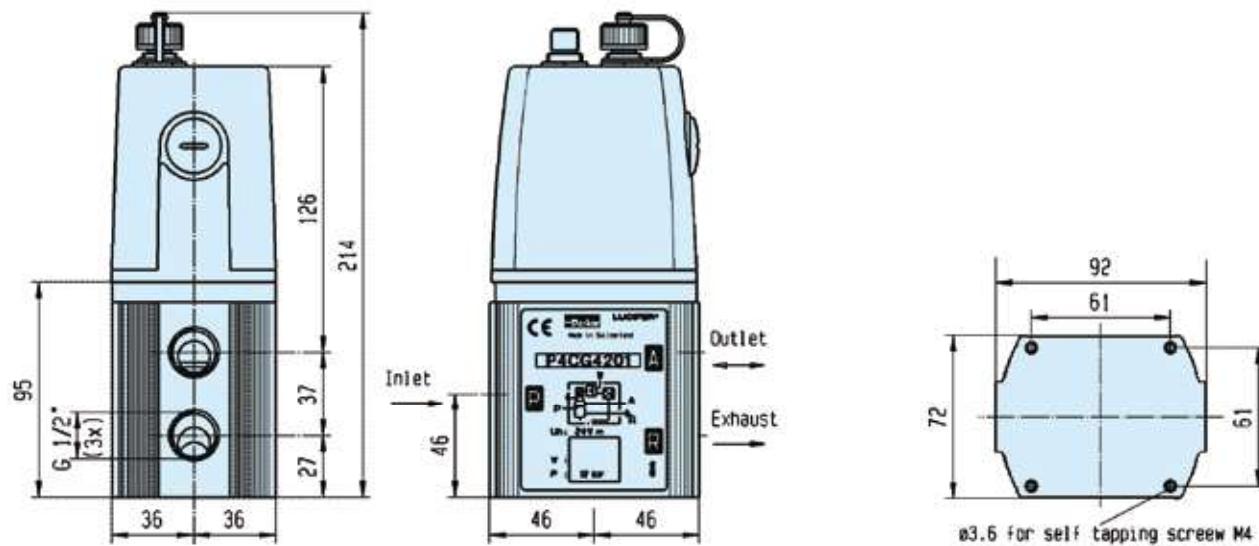
Order reference 491366

Order reference 491367

Lucifer® EPP4 Comfort Range 1/2"
High Pressure 21 bar

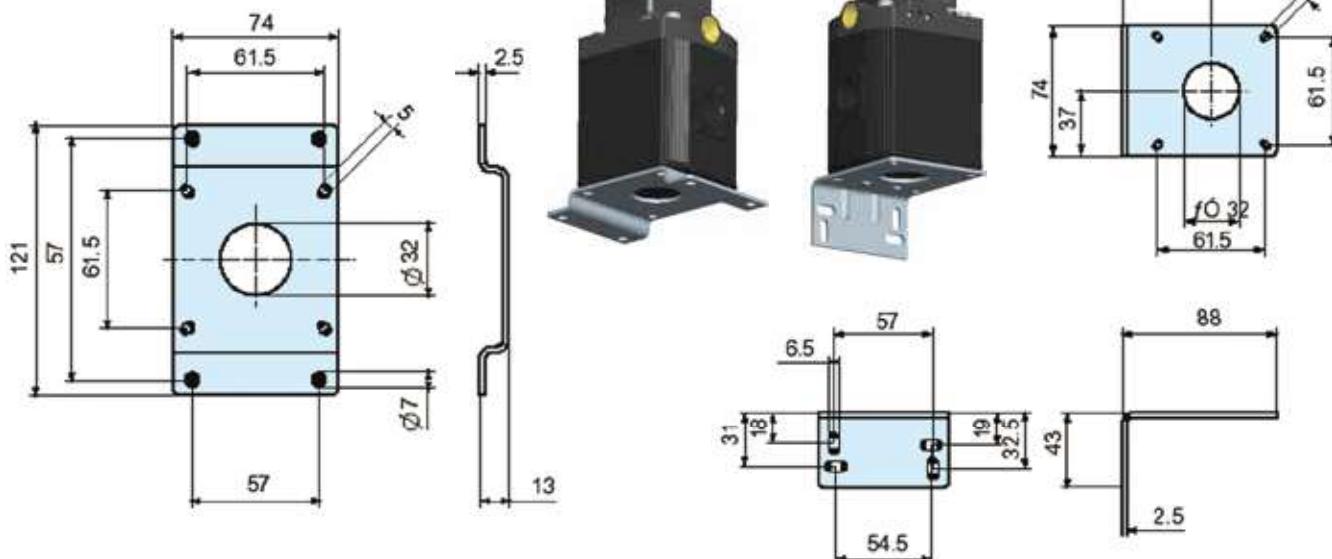


Dimensions



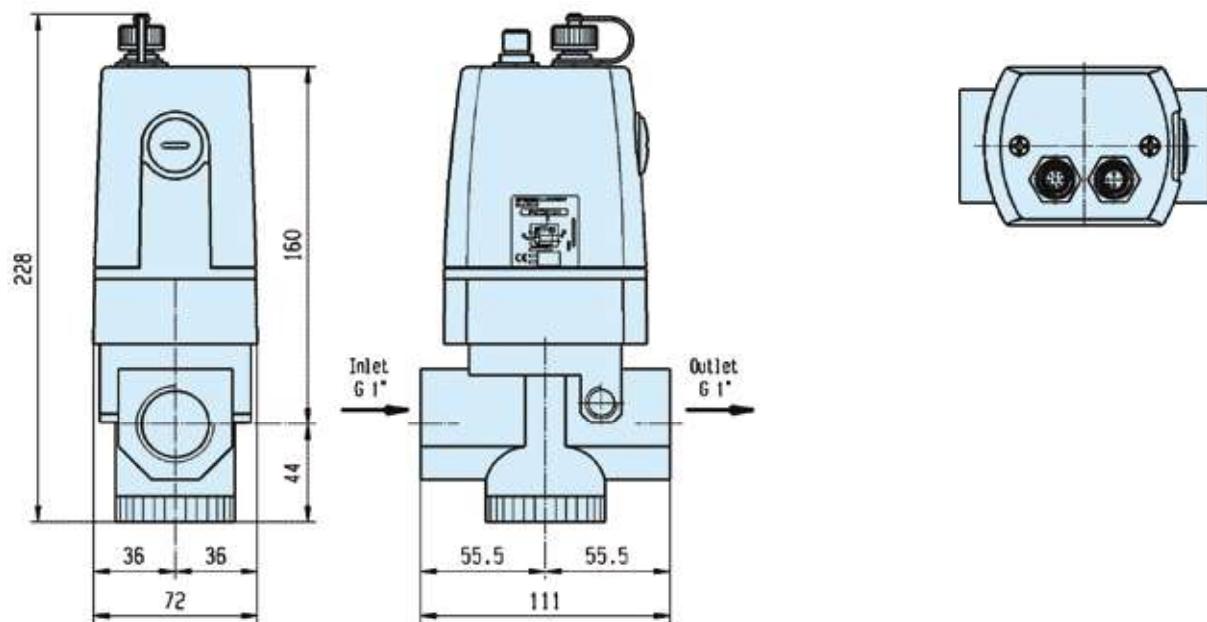
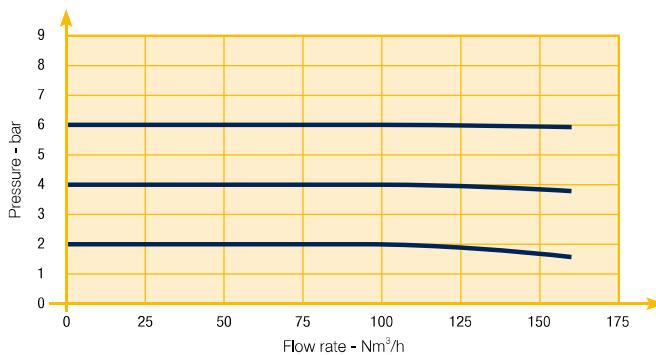
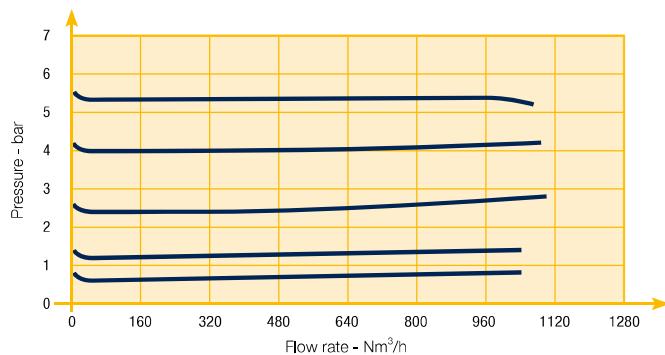
Accessories

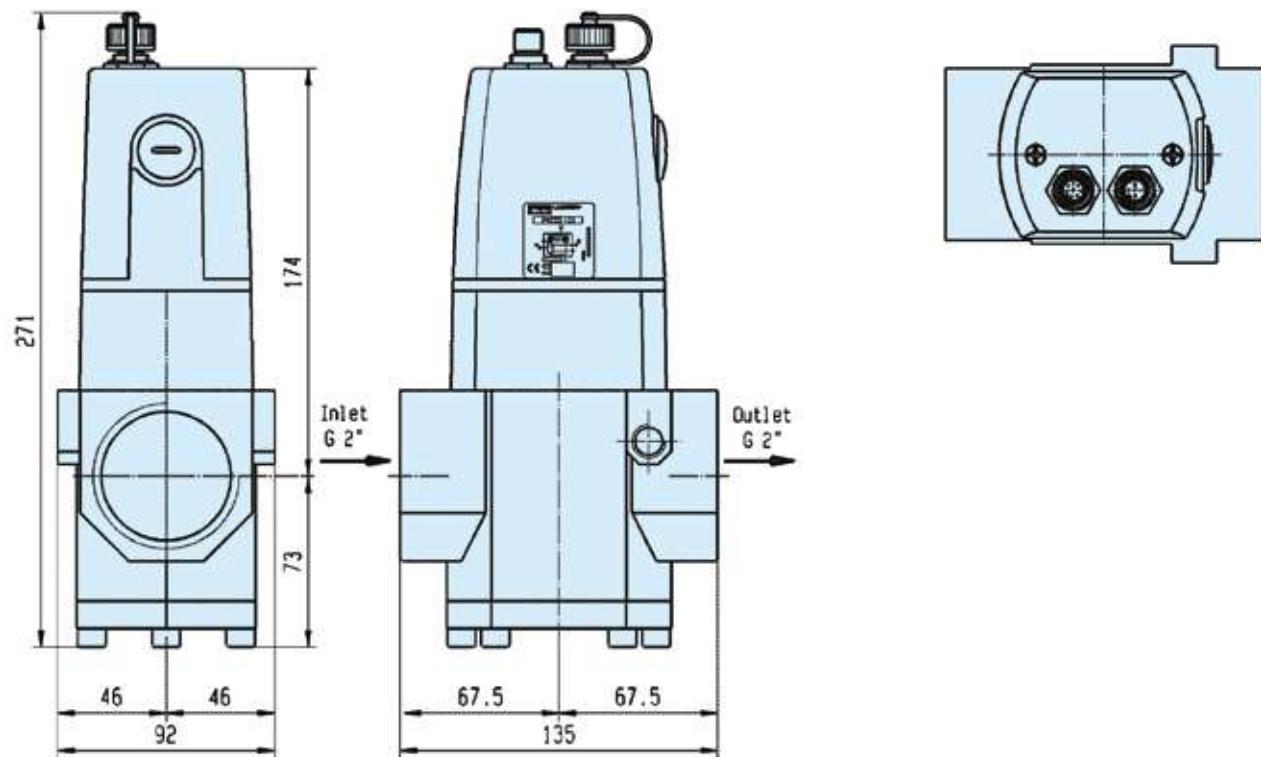
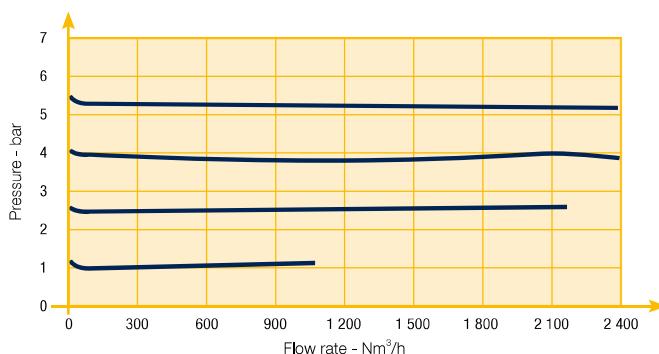
Mounting brackets to be ordered separately



Order reference 491366

Order reference 491367

Lucifer® EPP4 Comfort Range 1"**Dimensions****Flow Curve 1/2"****Flow Curve 1"**

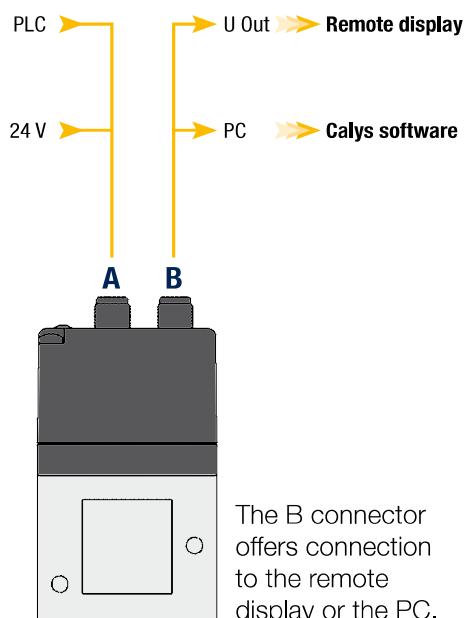
Lucifer® EPP4 Comfort Range 2"**Dimensions****Flow Curve 2"**

Lucifer® EPP4 Comfort Options

Additional Features

The EPP4 Comfort offers two main options - a remote display and a software to easily set the regulator's parameters.

These are the key feature options for a comfortable use.



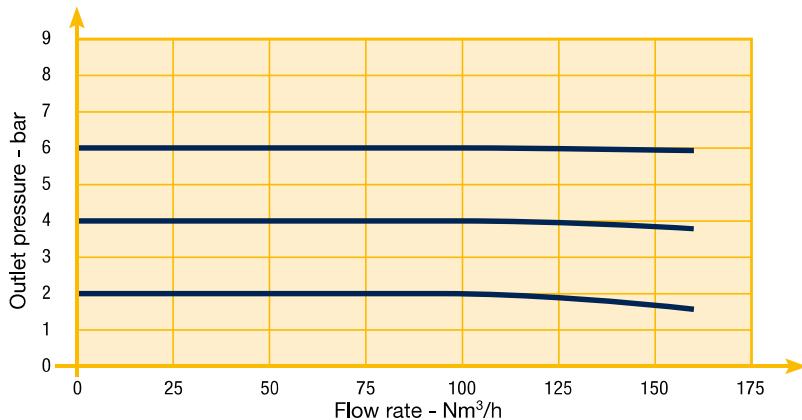
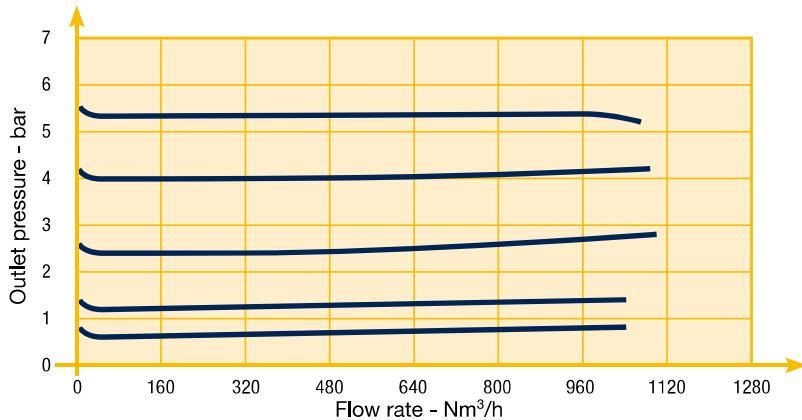
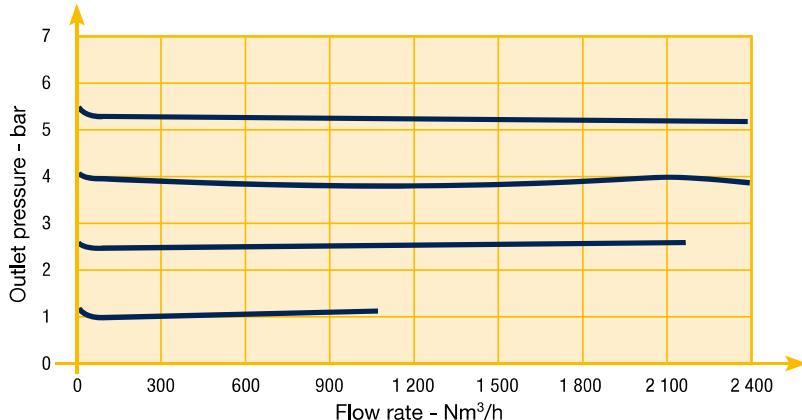
- A remote display connected to the pressure regulator offers flexible monitoring.
- A panel mounting kit is available to install the remote display.
- Calys is an easy-to-use software package designed to allow the user to match their regulators performance directly to their specific application.
- A power supply and control signal cable.

Lucifer® EPP4 Comfort 1/4" & 1/2"**Technical Data**

	Comfort 1/4"	Comfort 1/2"
Fluids:	Lubricated or non lubricated air and neutral gases - Recommended filtration: 50 µm	
Temperature range:	Ambient: 0°C to +50 °C Fluid: 0°C to +50 °C	
Inlet pressure range: The inlet pressure must always be at least 1 bar above the regulated pressure.	1 to 12 bar	1 to 12 bar
Outlet pressure range:	0.05 to 10 bar	
Hysteresis:	± 50 mbar (factory set up)	
Air consumption at constant control signal:	0	
Supply voltage:	24 V DC ± 15 % (Max. ripple 1 V)	
Power consumption:	Max. 2.8 W with 24 V DC and constant changes of the control signal < 1.5 W without change of control signal	
Control signal:	Analog 0 - 10 V Analog 4 - 20 mA	
Outlet sensor signal:	Analog 0 - 10 V Standard for 0 - 10 bar; Adjustable Analog 4 - 20 mA Standard for 0 - 10 bar; Adjustable	Digital 0/24 V for alarm features: Adjustable pressure error (+/-) Adjustable delay ON Adjustable delay OFF Adjustable logic (+/-)
Max. flow:	70 m³/h	150 m³/h
Indicative response time:	With a volume of 330 cm³ at the outlet of the regulator	
Filling 2 to 4 bar :	50 msec	60 msec
Filling 2 to 8 bar:	100 msec	120 msec
Emptying 4 to 2 bar:	70 msec	90 msec
Emptying 8 to 2 bar:	130 msec	190 msec
Safety position:	In case of control signal failure or if it is less than 50 mV, the regulated pressure drops automatically to 0 bar (atmospheric pressure). In case of voltage supply failure, the regulated pressure will be kept constant.	
Electrical connection:	M12 - 8 pin; male connector power supply/control signal M12 - 5 pin; male connector communication	
Life expectancy:	> 50 Million changes of control signal steps	
Mounting position:	Indifferent (recommended position: upright; electronic part on top)	
Resistance to vibrations:	30 g in all directions	
Degree of protection:	IP 65	
Assembly:	Silicone free	
Electromagnetic compatibility: In accordance with:	EN 61000-6-1: 2001 EN 61000-6-2: 2001 EN 61000-6-3: 2001 + A11 2004 edition (01/07/07) EN 61000-6-4: 2001	
Installation and setting instructions:	See our "Notice 408128, 408134" and appendix supplied with the product.	

Note: Parker reserves the right to change specifications without notification.

Lucifer® EPP4 Comfort
1/2", 1" & 2" ATEX

Flow Curves
Flow Curve 1/2"

Flow Curve 1"

Flow Curve 2"


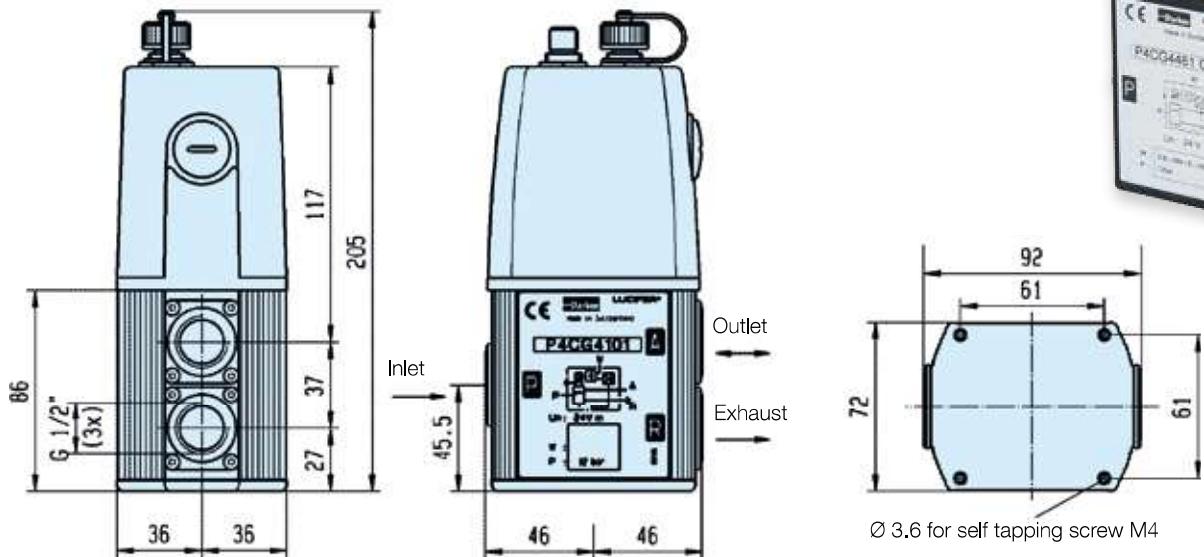
Lucifer® EPP4 Comfort
1/2" ATEX
**References**

Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)	Control signal (see options)	Dimensional Drawing
P4CG4461C001	G1/2	12	0	10	0-10 V
P4CG4461C002	G1/2	12	0	10	4-20 mA
P4CG4465C001 **	G1/2	12	0	10	0-10 V
P4CG4465C002 **	G1/2	12	0	10	4-20 mA

** O2

Other specific settings or specialties are available, please contact us.



Lucifer® EPP4 Comfort
1/2" ATEX
**Dimensions (mm)**

Drawing 9

Lucifer® EPP4 Comfort
1" & 2" ATEX
**References**

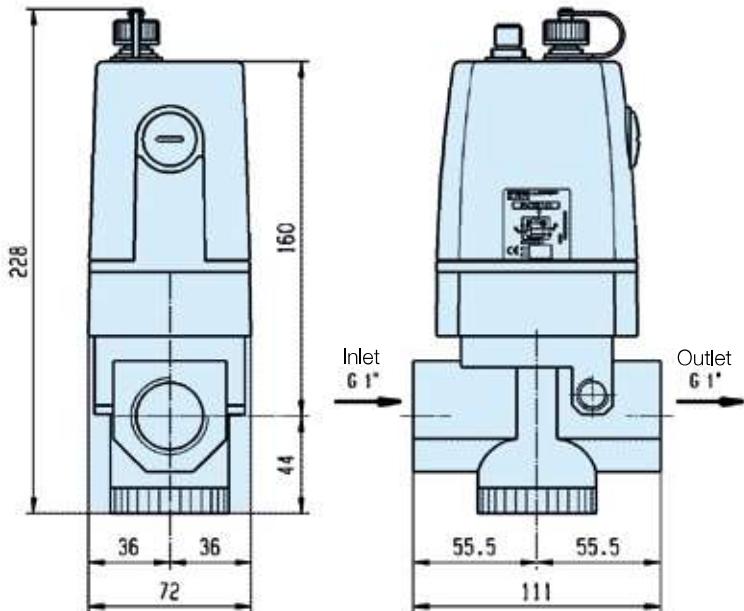
Codes	Pipe	Max inlet pressure (bar)	Pressure range (bar)	Control signal (see options)	Dimensional Drawing
P4CG6161C001	G1	12	0 10	0-10 V	11
P4CG6161C002	G1	12	0 10	4-20 mA	11
P4CG9161C001	G2	12	0 10	0-10 V	12
P4CG9161C002	G2	12	0 10	4-20 mA	12

Other specific settings or specialties are available, please contact us.

Lucifer® EPP4 Comfort
1" & 2" ATEX

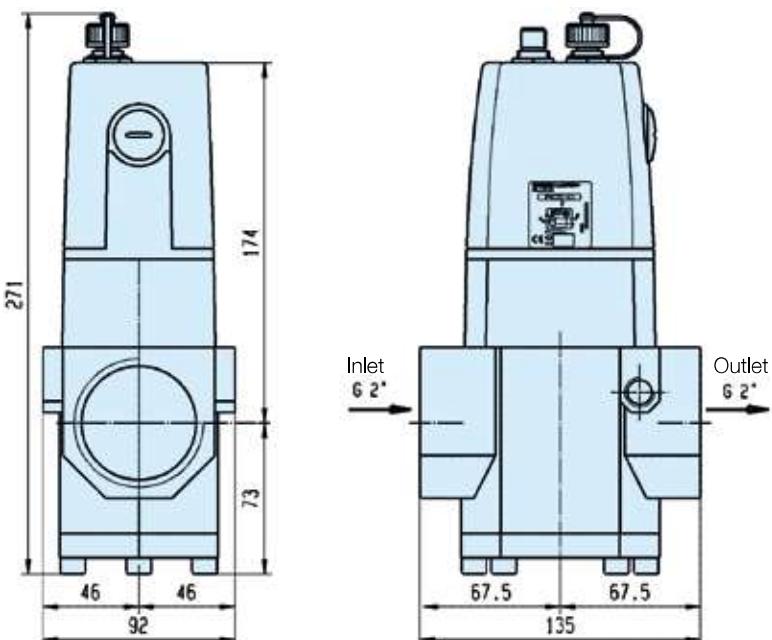


Dimensions (mm) - EPP4 Comfort Range 1"



Drawing 11

Dimensions (mm) - EPP4 Comfort Range 2"



Drawing 12

Parker Angle Seat Valves

Introduction

An angle seat valve is actuated by a pneumatically driven piston and is capable to handle slurry solutions with particles or corrosive solutions at high temperature up to 180°C and operating pressure up to 16 Bar.



Benefits

- Compact design, high flow rates
- Visual position indicator
- For temperatures from -10°C to 180°C
- Working pressures up to 16 Bar
- Dampened closing anti-water hammer design (fluid under seat)
- Stainless Steel actuator housing for exceptional durability in steam and aggressive applications
- Valves meeting Pressure Equipment Directive 97/23/EC
- Mountable in any position
- Tight shut-off and Long Service Life
- Parker Angle Seat Valves conform to the terms of the 94/9/CE directive specific to non electrical equipment for use within potentially explosive environments - zones 1/21 and 2/22



Angle seat valves are suitable for many process

and industrial applications:

- Food and Beverage Processing
- Water Technology & Treatment
- Textile Industry
- Cooling systems on injection molding machines
- Pharmaceutical & cosmetic industry
- Chemical Process technology
- Refrigeration & Cooling heat exchangers
- Sterilizers steam supply
- Water applications: Mining, Cement / Concrete Systems, Pulp & Paper
- General industrial applications of aggressive fluids
- Industrial Laundry Equipment
- Industrial Air Dryers



**PA Series, 2/2 Way, NC or NO
3/8" to 2 1/2" BSP, 16 bar**



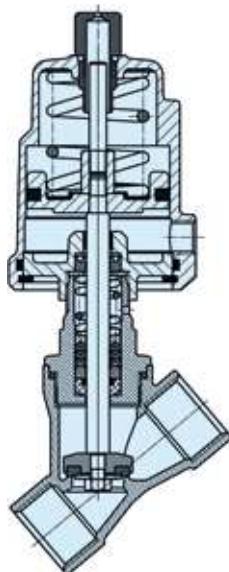
- Body Material 304 Stainless Steel or 316 Stainless Steel
- Actuator Material 304 Stainless Steel, or Aluminum
- Function 2/2 NC, NO, NC (anti-water hammer)
- Port size from DN 10 (3/8") to DN 65 (2 1/2")
- Connections: Threads BSP
- Max Working Pressure 16 Bar
- Flow factor KV from 4.7 m³/h (DN10) to 70 m³/h (DN 65)
- The PA Series angle seat valves comply with European Pressure Equipment Directive 97/23/EC
- Parker Angle Seat Valves conform to the terms of the 94/9/CE directive specific to non electrical equipment for use within potentially explosive environments - Zones 1/21 and 2/22 - Protection II 2 GD c TX

- Pilot Pressure 3 Bar min to 10 Bar according to control pressure charts
- Maximum Fluid Temp -10°C to 180°C
- Ambient Temperature -10°C to 60°C
- Seat Seal material PTFE/RTFE
- Packing Gland: PTFE and PTFE with Carbon
- Installation Any Position
- Optical Position Indicator Standard on all sizes
- Pilot Control Media Air, Neutral Gas
- Fluids handled: Inert gases, hot water, oils, steam, aggressive and corrosive fluids
- Weight from 0.58 Kg (DN10) to 8.65 Kg (DN 65)
- Viscosity: Maxi. 600 mm²/s (600cSt, 80° E, 2700 SSU)

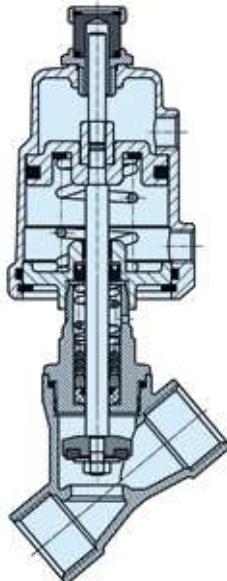


For liquids, use versions with flow direction under the seat.

- Spare Parts Kits are available for main seat and body gasket replacement (on request)
- 3 Way Direct Acting AC & DC Pilot Control Valves available as separate components



Normally Closed Valve



Normally Open Valve

PA Series - Normally Closed Valves**Flow Direction OVER Seat**

Model Numbers Shown are BSP threads

**304 Stainless Steel Actuators
with 304 Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	40	4.7	0-16	4	PA10S1G3S040S	0.78
			50	4.7	0-16	3	PA10S1G3S050S	1.01
DN15	1/2"	13	40	4.7	0-16	4	PA15S1G4S040S	0.80
			50	4.7	0-16	3	PA15S1G4S050S	1.03
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5S050S	1.06
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6S050S	1.38
			63	16.0	0-16	3-3.5	PA25S1G6S063S	2.05
DN32	1-1/4"	31	63	24.0	0-16	3-5	PA32S1G7S063S	2.40
DN40	1-1/2"	35	63	32.0	0-16	3-6	PA40S1G8S063S	2.75
			63	50.0	0-10	3-6.5	PA50S1G9S063S	3.50
DN50	2"	45	80	50.0	0-16	3-6.6	PA50S1G9S080S	4.62
			100	50.0	0-16	3-5	PA50S1G9S100S	5.16
DN65	2-1/2"	65	100	70.0	0-10	3-6	PA65S1GTS100S	8.65

**304 Stainless Steel Actuators
with 316L Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	40	4.7	0-16	4	PA10S1G3R040S	0.78
			50	4.7	0-16	3	PA10S1G3R050S	1.01
DN15	1/2"	13	40	4.7	0-16	4	PA15S1G4R040S	0.80
			50	4.7	0-16	3	PA15S1G4R050S	1.03
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5R050S	1.06
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6R050S	1.38
			63	16.0	0-16	3-3.5	PA25S1G6R063S	2.05
DN32	1-1/4"	31	63	24.0	0-16	3-5	PA32S1G7R063S	2.40
DN40	1-1/2"	35	63	32.0	0-16	3-6	PA40S1G8R063S	2.75
			63	50.0	0-10	3-6.5	PA50S1G9R063S	3.50
DN50	2"	45	80	50.0	0-16	3-6.6	PA50S1G9R080S	4.62
			100	50.0	0-16	3-5	PA50S1G9R100S	5.16
DN65	2-1/2"	65	100	70.0	0-10	3-6	PA65S1GTR100S	8.65

PA Series - Normally Closed Valves**Flow Direction OVER Seat**

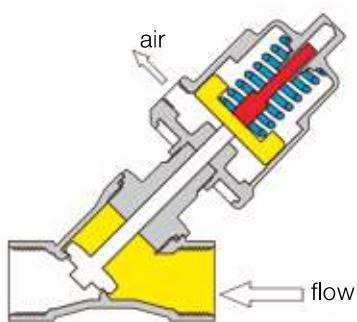
Model Numbers Shown are BSP threads


**Aluminium Actuators
with 304 Stainless Steel Bodies**

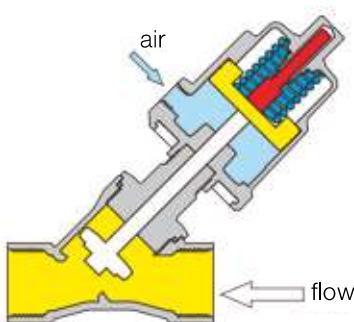

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	3	PA10S1G3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	3	PA15S1G4S050A	0.80
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5S050A	0.90
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6S050A	1.27
			63	16.0	0-16	3-4	PA25S1G6S063A	1.65
DN32	1-1/4"	31	63	24.0	0-16	3-5.5	PA32S1G7S063A	1.89
DN40	1-1/2"	35	63	32.0	0-16	3-6.5	PA40S1G8S063A	2.15
			63	50.0	0-10	3-6.5	PA50S1G9S063A	2.98
DN50	2"	45	80	50.0	0-16	3-6.6	PA50S1G9S080A	3.56
			100	50.0	0-16	3-5	PA50S1G9S100A	4.75
DN65	2-1/2"	65	100	70.0	0-10	3-6	PA65S1GTS100A	5.50

**Aluminium Actuators
with 316L Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	3	PA10S1G3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	3	PA15S1G4R050A	0.80
DN20	3/4"	18	50	9.0	0-16	3-4	PA20S1G5R050A	0.90
DN25	1"	24	50	16.0	0-16	3-5.5	PA25S1G6R050A	1.27
			63	16.0	0-16	3-4	PA25S1G6R063A	1.65
DN32	1-1/4"	31	63	24.0	0-16	3-5.5	PA32S1G7R063A	1.89
DN40	1-1/2"	35	63	32.0	0-16	3-6.5	PA40S1G8R063A	2.15
			63	50.0	0-10	3-6.5	PA50S1G9R063A	2.98
DN50	2"	45	80	50.0	0-16	3-6.6	PA50S1G9R080A	3.56
			100	50.0	0-16	3-5	PA50S1G9R100A	4.75
DN65	2-1/2"	65	100	70.0	0-10	3-6	PA65S1GTR100A	5.50

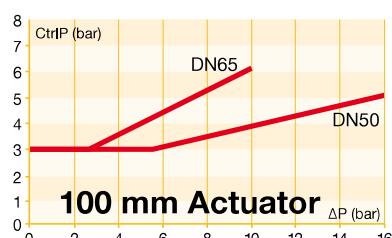
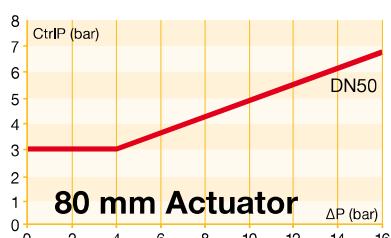
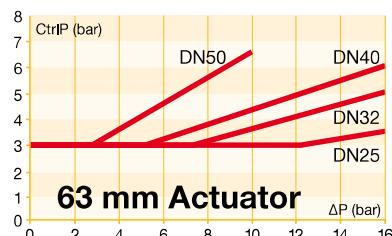
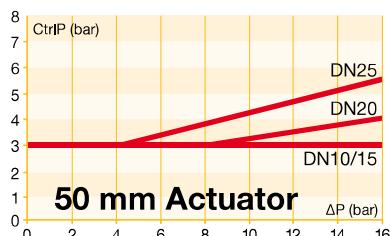
Flow Diagram

Valve Closed



Valve Open

Control Pressure & Operating Pressure Charts for the Normally Closed Valves with Aluminum Actuators



PA Series - Normally Closed Valves**Flow Direction UNDER Seat****Anti Water Hammer Construction**

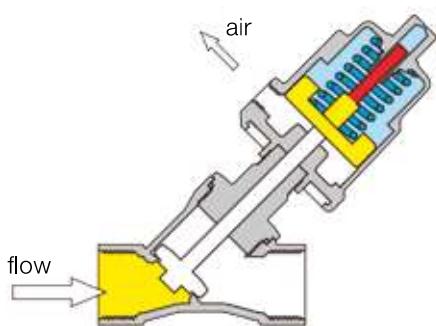
Model Numbers Shown are BSP threads

**304 Stainless Steel Actuators
with 304 Stainless Steel Bodies**

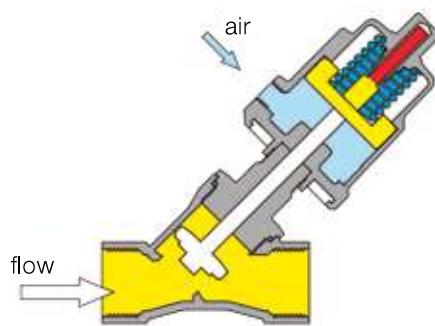
Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3S050S	1.01
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4S050S	1.03
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5S050S	1.06
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6S063S	2.05
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7S080S	3.82
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8S080S	4.07
			100	32.0	0-16	4	PA40SAG8S100S	4.61
DN50	2"	45	100	50.0	0-9	4	PA50SAG9S100S	5.16

**304 Stainless Steel Actuators
with 316L Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3R050S	1.01
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4R050S	1.03
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5R050S	1.06
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6R063S	2.05
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7R080S	3.82
DN40	1-1/2"	35	80	32.0	0-8	4	PA40SAG8R080S	4.07
			100	32.0	0-16	4	PA40SAG8R100S	4.61
DN50	2"	45	100	50.0	0-9	4	PA50SAG9R100S	5.16

Flow Diagram

Valve Closed



Valve Open

PA Series - Normally Closed Valves**Flow Direction UNDER Seat****Anti Water Hammer Construction****Model Numbers Shown are BSP threads**
**Aluminium Actuators
with 304 Stainless Steel Bodies**

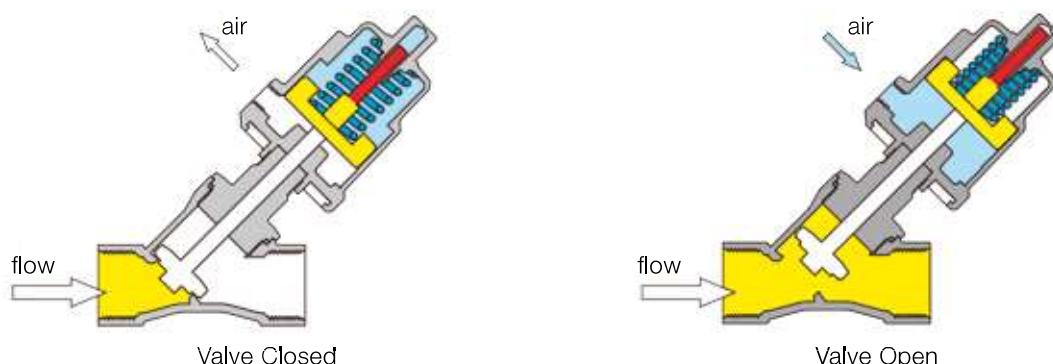

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3S050A	0.75
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4S050A	0.80
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5S050A	0.90
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6S063A	1.65
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7S080A	2.80
DN40	1-1/2"	35	—	80	32.0	0-8	PA40SAG8S080A	3.10
DN40	1-1/2"	35	—	100	32.0	0-16	PA40SAG8S100A	4.15
DN50	2"	45	100	50.0	0-9	4	PA50SAG9S100A	4.75

**Aluminium Actuators
with 316L Stainless Steel Bodies**

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure bar	Order code	Weight Kg
DN10	3/8"	13	50	4.7	0-16	4.5	PA10SAG3R050A	0.75
DN15	1/2"	13	50	4.7	0-16	4.5	PA15SAG4R050A	0.80
DN20	3/4"	18	50	9.0	0-10	4.5	PA20SAG5R050A	0.90
DN25	1"	24	63	16.0	0-8	4.5	PA25SAG6R063A	1.65
DN32	1-1/4"	31	80	24.0	0-11	4	PA32SAG7R080A	2.80
DN40	1-1/2"	35	—	80	32.0	0-8	PA40SAG8R080A	3.10
DN40	1-1/2"	35	—	100	32.0	0-16	PA40SAG8R100A	4.15
DN50	2"	45	100	50.0	0-9	4	PA50SAG9R100A	4.75

Control Pressure & Operating Pressure

Charts do not apply for Valves with flow direction Under Seat. A minimum pressure as noted above is all that is required, up to a maximum of 10 bar.

Flow Diagram

PA Series - Compact Design Normally Closed Valves Flow Direction OVER Seat

Model Numbers Shown are BSP threads

Media Temperature - 10°C to + 100°C



304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C3G3S032S	0.58
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C3G4S032S	0.60
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C3G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C3G3R032S	0.58
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C3G4R032S	0.60
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C3G5R032S	0.65

Media Temperature - 10°C to + 180°C

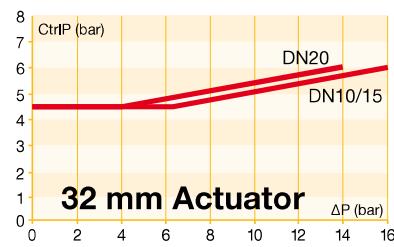
304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C1G3S032S	0.63
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C1G4S032S	0.65
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C1G5S032S	0.71

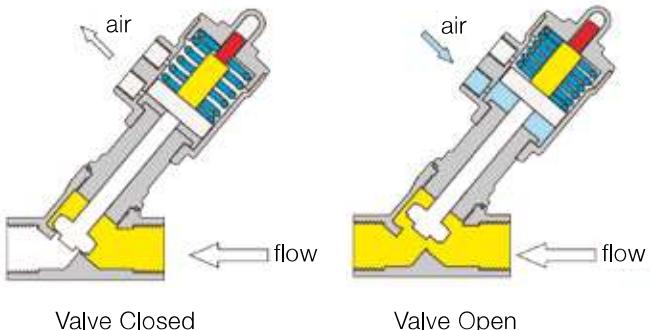
304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-16	4.5-6	PA10C1G3R032S	0.63
DN15	1/2"	13	32	4.7	0-16	4.5-6	PA15C1G4R032S	0.65
DN20	3/4"	15	32	5.4	0-14	4.5-6	PA20C1G5R032S	0.71

Control Pressure & Operating Pressure



Flow Diagram



PA Series - Compact Design Normally Closed Valves
Flow Direction UNDER Seat

Model Numbers Shown are BSP threads

Media Temperature - 10°C to + 100°C



304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C4G3S032S	0.58
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C4G4S032S	0.60
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C4G5S032S	0.65

304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C4G3R032S	0.58
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C4G4R032S	0.60
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C4G5R032S	0.65

Media Temperature - 10°C to + 180°C

304 Stainless Steel Actuators with 304 Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C2G3S032S	0.63
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C2G4S032S	0.65
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C2G5S032S	0.71

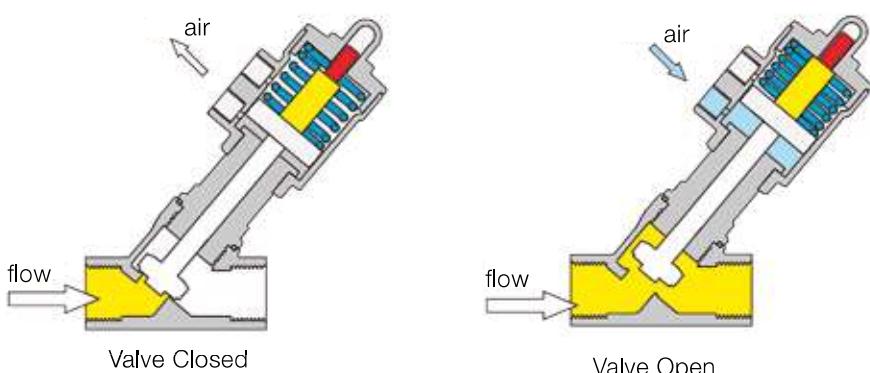
304 Stainless Steel Actuators with 316L Stainless Steel Bodies

Size	Port Size	Orifice mm	Actuator mm	KV m³/h	Operating Pressure Differential bar	Minimum Pilot Control Pressure Range bar	Order code	Weight Kg
DN10	3/8"	13	32	4.7	0-6	5-6	PA10C2G3R032S	0.63
DN15	1/2"	13	32	4.7	0-6	5-6	PA15C2G4R032S	0.65
DN20	3/4"	15	32	5.4	0-4	5-6	PA20C2G5R032S	0.71

Control Pressure & Operating Pressure

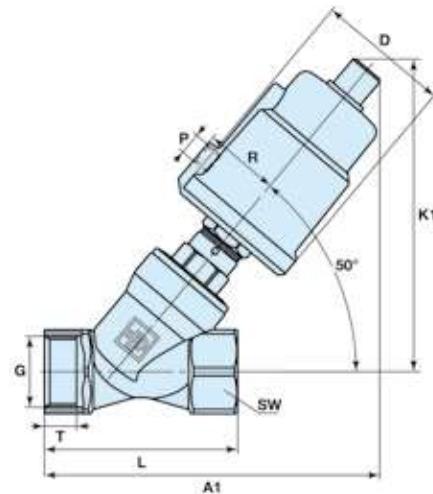
Charts do not apply for Valves with flow direction Under Seat. A minimum pressure as noted above is all that is required, up to 10 bar maximum.

Flow Diagram

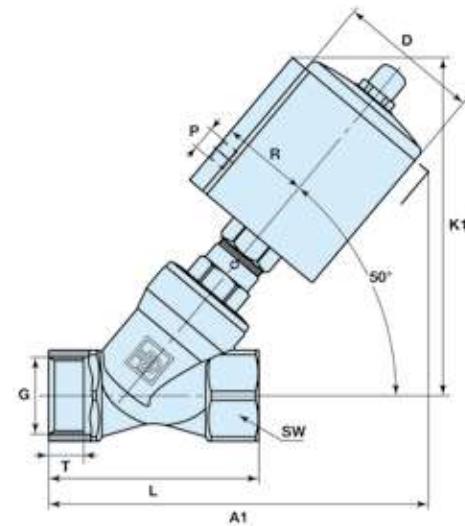


PA Series - Drawings and Dimensions**Stainless Steel Actuators Sizes 40, 50, 63, 80, 100 mm**

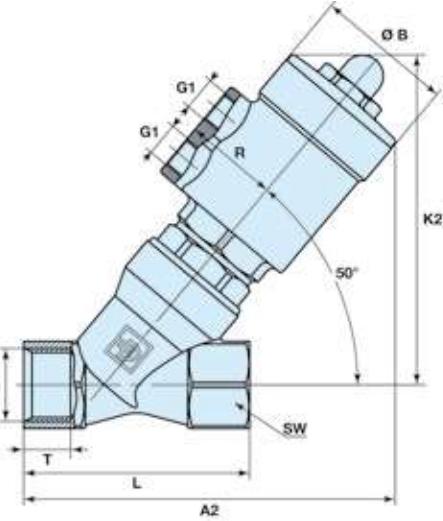
Type	Actuator	D	R	P	K1	A1	G	L	T	SW
DN10	40	50.5	27	G1/8	116	121	G3/8	60	10	22 hexagon
	50	62	34	G1/8	130	133	G3/8	60	10	22 hexagon
DN15	40	50.5	27	G1/8	118	124	G1/2	65	11.5	25 hexagon
	50	62	34	G1/8	131	135	G1/2	65	11.5	25 hexagon
DN 20	50	62	34	G1/8	134	141	G3/4	75	14	31 hexagon
	50	62	34	G1/8	141	153	G1	90	15	39 hexagon
DN25	63	77	41.5	G1/8	164	175	G1	90	15	39 hexagon
	63	77	41.5	G1/8	170	188	G1-1/4	110	18	50 octagon
DN32	80	98	52	G1/4	184	205	G1-1/4	110	18	50 octagon
	63	77	41.5	G1/8	181	201	G1-1/2	120	18	56 octagon
DN40	80	98	52	G1/4	195	217	G1-1/2	120	18	56 octagon
	100	121	63	G1/4	213	235	G1-1/2	120	18	56 octagon
DN50	63	77	41.5	G1/8	189	216	G2	150	22	68 octagon
	80	98	52	G1/4	203	233	G2	150	22	68 octagon
DN65	100	121	63	G1/4	221	250	G2	150	22	68 octagon
	100	121	63	G1/4	248	285	G2-1/2	180	25	85 octagon

**Aluminum Actuators Sizes 50, 63, 80, 100 mm**

Type	Actuator	D	R	P	K1	A1	G	L	T	SW
DN10	50	61	38	G1/8	132	141	G3/8	60	10	22 hexagon
DN15	50	61	38	G1/8	133	144	G1/2	65	11.5	25 hexagon
DN20	50	61	38	G1/8	136	150	G3/4	75	14	31 hexagon
	50	61	38	G1/8	144	162	G1	90	15	39 hexagon
DN25	63	75	45	G1/8	167	183	G1	90	15	39 hexagon
	63	75	45	G1/8	173	196	G1-1/4	110	18	50 octagon
DN32	80	94	54	G1/4	192	214	G1-1/4	110	18	50 octagon
	63	75	45	G1/8	184	209	G1-1/2	120	18	56 octagon
DN40	80	94	54	G1/4	203	226	G1-1/2	120	18	56 octagon
	100	115	64	G1/4	223	245	G1-1/2	120	18	56 octagon
DN50	63	75	45	G1/8	192	224	G2	150	22	68 octagon
	80	94	54	G1/4	211	242	G2	150	22	68 octagon
DN65	100	115	64	G1/4	231	260	G2	150	22	68 octagon
	100	115	64	G1/4	257	294	G2-1/2	180	25	85 octagon

**Stainless Steel Actuators Size 32 mm**

Type	Actuator	Ø B	R	G1	K2		A2		G	L	T	SW
					Type C1/C2 (180°C)	Type C3/C4 (100°C)	Type C1/C2 (180°C)	Type C3/C4 (100°C)				
DN10	32	39.6	27	G1/8	107	94	117	106	G3/8	60	10	22 hexagon
DN15	32	39.6	27	G1/8	109	96	119	108	G1/2	65	11.5	25 hexagon
DN20	32	39.6	27	G1/8	112	100	126	115	G3/4	75	14	31 hexagon



Solenoid Valves for Controlling the PA

Angle Seat Valves

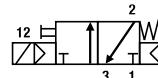
3 Way Direct Acting Pilot Control Valves

Banjo Valve - Available as Separate Components

Banjo Valves G1/4" & G1/8" Series with Aluminium Body

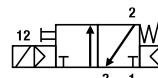
Solenoid Operated Versions - B14-B04 Versions with 22 mm Coil

Port Size	Orifice mm	Q _N l/min	Admissible differential pressure (bar) max.	Max. admissible fluid temperature (°C)	Seat disc	Reference number	Consumption Power (Watt)	Weight (g)	Dim. Ref.
Banjo G			DC= AC~	Air & Neutral gases	Valve	Housing	Coil DC	AC	



3/2 Solenoid operated - Spring return (monostable)

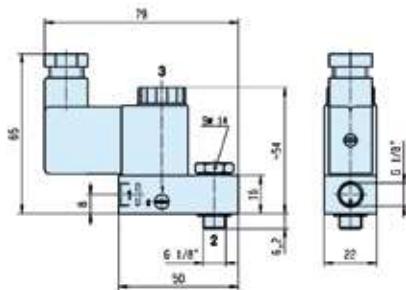
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496131	3	3	140	26
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496482	3	3	150	26
1/8	1/8	1.2	50	0	10	10	50	NBR	131B14	-	496637	3	3	150	26
1/8	1/8	1.2	50	0	10	-	50	NBR	131B14	-	482605	5	-	170	26



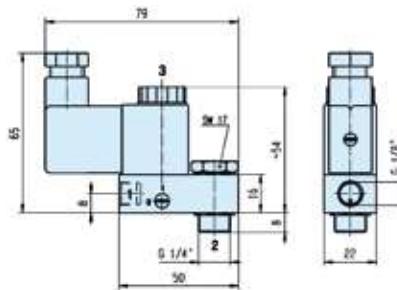
3/2 Solenoid operated - Spring return (monostable)

1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496131	3	3	160	27
1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496482	3	3	175	27
1/4	1/8	1.2	50	0	10	10	50	NBR	131B04	-	496637	3	3	175	27
1/4	1/8	1.2	50	0	10	-	50	NBR	131B04	-	482605	5	-	190	27

Dimensions Reference 26



Dimensions Reference 27



Coils 22 mm for Banjo Valves Series

These coils with connection for 2 P+G DIN 43650 B plug are encapsulated in synthetic material, conform to the IEC/CENELEC safety standards and comply with European low voltage directive 2006/95/EC. Banjo Valve bodies conform to the terms of the directive 94/9/CE specific to non electrical equipment for use within potentially explosive environments - Please select appropriate Coil for Safe Area or ATEX zones 1/21 or 2/22 in the following table.

- | Power: 3 W or 5 W
- | Insulation Class: F (155°C)
- | Degree of Protection: IP65 (with plug)
- | Duty Cycle: 100% ED

Available Voltages	Safe area without DIN plug Code	Safe area with DIN plug Code	For Zone 2/22 II 3 G-Ex nc AC IIC T5 code with DIN plug	For Zone 1/21 II 2 G-Ex mb II T4 II 2 D-Ex tb IIIC - T 95°C code includes DIN plug and 1.5 m cable
12 VDC	496131 C1	496482 C1	496637 C1	482605 C1
24 VDC	496131 C2	496482 C2	496637 C2	482605 C2
48 VDC	496131 C4	496482 C4	496637 C4	-
110 VDC	496131 C5	496482 C5	496637 C5	-
24/50-60 VAC	496131 P0	496482 P0	496637 P0	-
48/50-60 VAC	496131 S4	496482 S4	496637 S4	-
110/50-60 VAC	496131 P2	496482 P2	496637 P2	-
115/60 VAC	496131 K8	496482 K8	496637 K8	-
230/50-60 VAC	496131 P9	496482 P9	496637 P9	-

How to Order

Valve Reference Number - Coil Reference - Voltage code = Order code

Example: 131B14 - 496131 C2 - Valves and coils may be ordered also separately.

Highly accurate units, suitable for applications such as instrumentation where precision regulation is required.

- High repeatability
- High relief capacity on R220 model
- High flow capacity on R230 model



Operating information

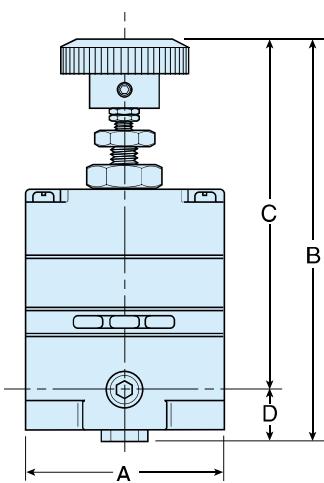
Max operating pressure	10 bar
Max operating temperature	66°C
Repeatability:	R210 model 0.3 mbar
	R220 model 0.3 mbar
	R230 model 0.6 mbar

For more information see www.parker.com/euro_pneumatic

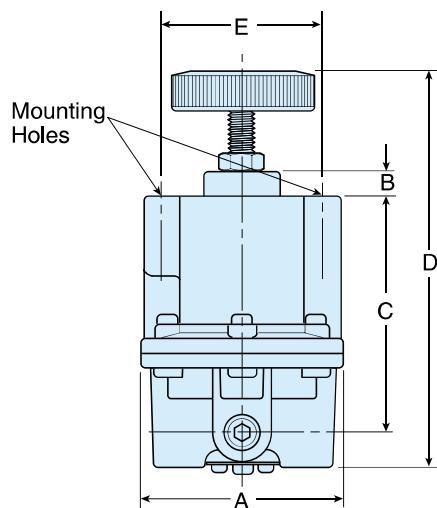
Port size	Reduced Pressure range	Flow l/min	Relief capacity l/min	Order code
	G1/4	0.13 - 2.7	396	R210G02A
	G1/4	0.13 - 8.1	396	R210G02C
	G1/4	0.13 - 8.1	396	R220G02C
	G1/4	0 - 0.13	2280	R230G02E
	G1/4	0 - 2	2280	R230G02B
	G1/4	0.13 - 4	2280	R230G02C
	G1/4	0.13 - 10	2280	R230G02D

Mounting brackets

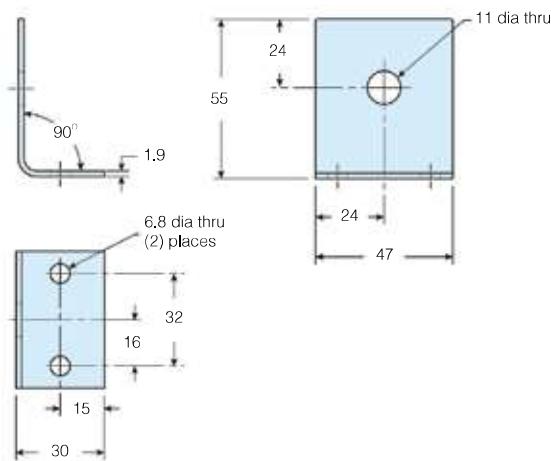
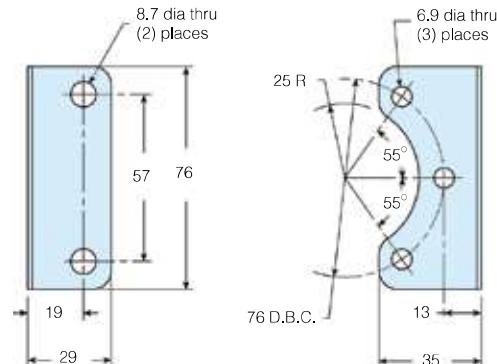
Series	Order code
R210 / R220	446-707-045
R230	446-707-025

Dimensions (mm)**R210 / 220 High Precision Regulator**

A	C	D	E
52mm	110mm	97mm	13.5mm

R230 High Flow Precision Regulator

A	B	C	D	E
76mm	10mm	86mm	154mm	57mm

Mounting bracket - 446-707-045**Mounting bracket - 446-707-025**

- Compact body ported units
- Port sizes G¹/₈ and G¹/₄
- Unique deflector plate ensuring maximum water and particulate removal
- Solid control piston with lip seal for extended life.
- Proportional oil delivery over a wide range of air flows.



Operating information

Working pressure:	Max 10 bar
Working temperature:	0 °C to +52 °C

Flow characteristics

Flow	Filter	11 l/s
	Regulator	9,3 l/s
	Filter Regulator	9,3 l/s
	Lubricator	10 l/s

For more information see www.parker.com/euro_pneumatic

Filters - 5 micron element, transparent bowl

Port size	Description	Order Code
G1/8	Manual drain	14F01BB1
G1/8	Auto drain	14F05BB1
G1/4	Manual drain	14F11BB1
G1/4	Auto drain	14F15BB1
	Mounting bracket	PS417BP

Regulators - relieving type - non relieving options available

Port size	Description	Order Code
G1/8	2 bar	14R010FC1
G1/8	4 bar	14R011FC1
G1/8	8 bar	14R013FC1
G1/4	2 bar	14R110FC1
G1/4	4 bar	14R111FC1
G1/4	8 bar	14R113FC1
	Mounting bracket (Includes panel mounting nut)	PS417BP

Lubricators - transparent bowl

Port size	Order Code
G1/8	04L00GB1
G1/4	04L10GB1
	Mounting bracket
	PS419

Pressure Gauges

	Order Code
0 - 2 bar	P3D-KAB1AYN
0 - 4 bar	P3D-KAB1ALN
0 - 8 bar	P3D-KAB1ANN

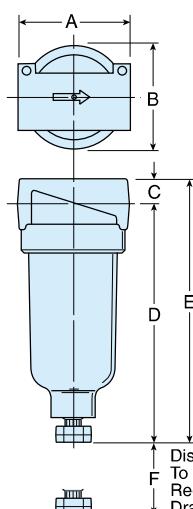
Coalescing Filters - 0.01 micron element

Port size	Description	Order Code
Poly bowl		
G1/8	Manual drain	10F01ED1
G1/8	Auto drain	10F05ED1
G1/4	Manual drain	10F11ED1
G1/4	Auto drain	10F15ED1
	Mounting bracket	PS417BP

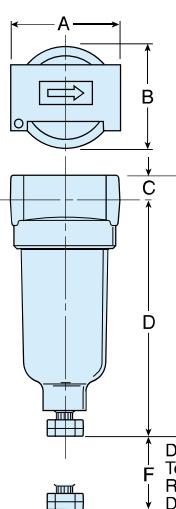
Filter/Regulators

- transparent bowl - 2 and 4 bar and non relieving options available

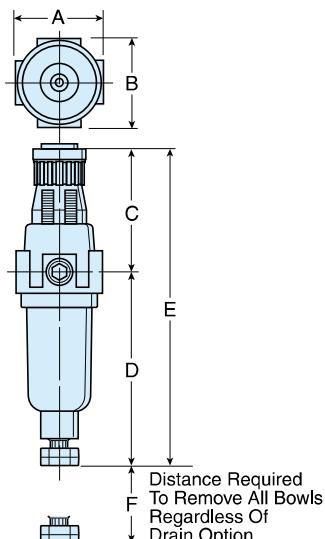
Port size	Description	Order Code
G1/8	2 bar, manual drain	14E01B10FC1
G1/8	2 bar, auto drain	14E05B10FC1
G1/4	2 bar, manual drain	14E11B10FC1
G1/4	2 bar, auto drain	14E15B10FC1
G1/8	4 bar, manual drain	14E01B11FC1
G1/8	4 bar, auto drain	14E05B11FC1
G1/4	4 bar, manual drain	14E11B11FC1
G1/4	4 bar, auto drain	14E15B11FC1
G1/8	8 bar, manual drain	14E01B13FC1
G1/8	8 bar, auto drain	14E05B13FC1
G1/4	8 bar, manual drain	14E11B13FC1
G1/4	8 bar, auto drain	14E15B13FC1
	Mounting bracket (Includes panel mounting nut)	PS417BP

Dimensions (mm)**Filters**

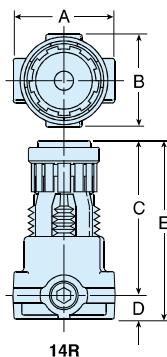
A	B	C	D	D ^t	E	E ^t	F
43	39	10	97	99	107	108	41

Coalescing Filters

A	B	C	D	D ^t	E	E ^t	F
43	39,6	10	97	93	107	103	41

Filter/Regulators

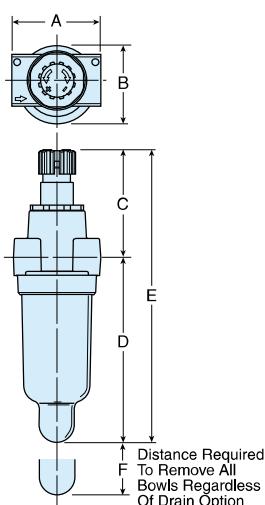
A	B	C	D	D ^t	E	E ^t	F
41	40	61	96	92	158	154	41

Regulators

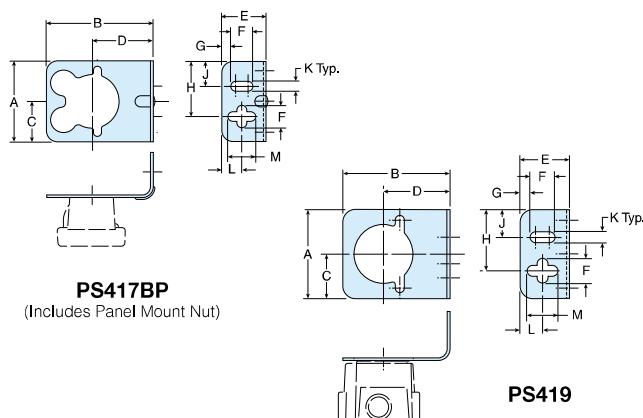
14R

14R	A	B	C	D	E
	42	40	63,5	10	731
14R**L*	A	B	C	D	E
	42	40	57,9	10	68

14RM	A	B	C	D	E	F	G	H	J
	38	38	60	13	73	30	15	8	18

Lubricators

A	B	C	D	D ^t	E	E ^t	F
44	40	55	92	96	147	151	41

Mounting Bracket Kits

PS417BP - 10F, 14F, 14R, 14E

A	B	C	D	E	F	G	H	J	K	L	M
46	60	23	34	25	13	5	31	14	6	11	16

PS419 - 04L

A	B	C	D	E	F	G	H	J	K	L	M
46	55	23	34	25	13	5	31	14	6	11	16

Service kits

Description	Order Code
5 micron particulate element	PS403P
0.01 micron coalescing element	PS446P
Poly bowl with manual drain	PS404P
Poly bowl with pulse drain	PS408BP
Lubricator bowl	PS421P
Regulator	
Relieving type	PS422P
Non-relieving type	PS428P

The range of Stainless Steel FRLs are ideal for use in the food industry, the petrochemical or process industries or any application in a particularly harsh or aggressive environment.

- Suitable for Marine & Offshore applications
- Chemical / Petroleum and process industries
- Coalescing filters are designed for removing oil and water aerosols down to 0.01μ
- Suitable for food industry applications



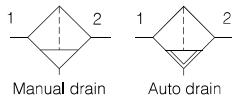
Operating information

Max operating pressure	20 bar
	12 bar when fitted with auto-drain
Max operating temperature	Regulator 65°C
	Filter + Regulator 80°C,

50°C when fitted with auto-drain

For more information see www.parker.com/euro_pneumatic

Particulate Filter



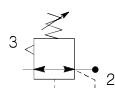
Port size	Flow l/min @ 7 bar	Filter element	Order code with manual drain	Order code with auto drain
G1/4	660	20μ	PF504G02DHSS	
G1/2	1800	40μ	PF10G04DJSS	PF10G04DJRSS

* For 5μ filter element substitute **H** or **J** with **G**

Coalescing Filter

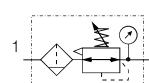
Port size	Flow l/min @ 7 bar	Filter element	Order code with manual drain	Order code with auto drain
G1/4	240	0.3μ	PF501G02DHSS	
G1/2	480	0.01μ	PF11G04DJSS	PF11G04DJRSS

Regulator



Port size	Flow l/min @ 7 bar	Order code fitted with 0-8.5 bar spring
G1/4 Plastic bonnet/knob Full S/S version	450	PR364G02CSS PR354G02CSS
G1/2 Plastic bonnet/knob Full S/S version	2820	PR10G04CSS PR11G04CSS

Filter/Regulator



Port size	Flow l/min @ 7 bar	Order code fitted with 0-8.5 bar spring
G1/4 Plastic bonnet/knob Full S/S version	450	PB548G02DHCSS PB558G02DHCSS
G1/2 Plastic bonnet/knob Full S/S version	1800	PB11G04DJCSS PB12G04DJCSS

Lubricator



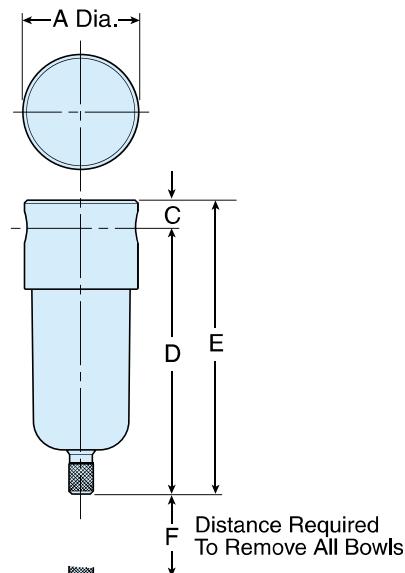
Port size	Flow l/min @ 7 bar	Order code
G1/2	3000	PL10G04DSS

Panel mounting nut for G1/4: **PR05X51SS**
G1/2: **PR10X51SS**

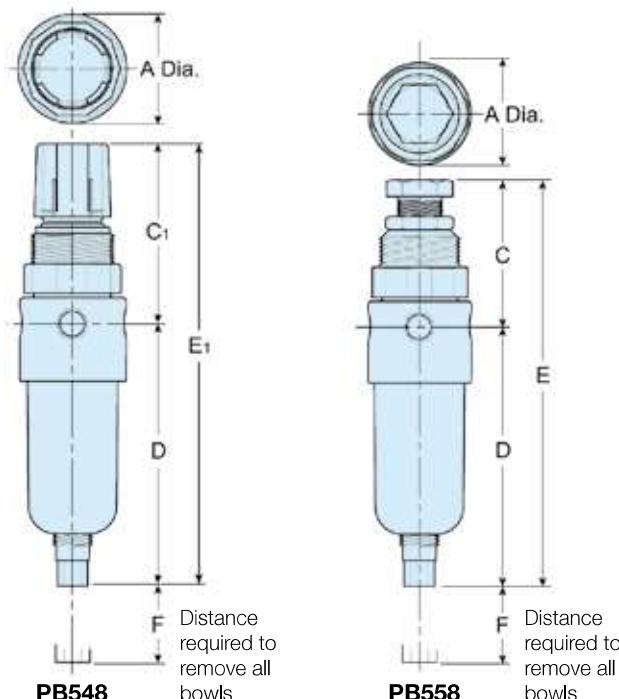
Connectors

Port size	Order code
G1/4	AC-2SS
G1/2	AC-4SS

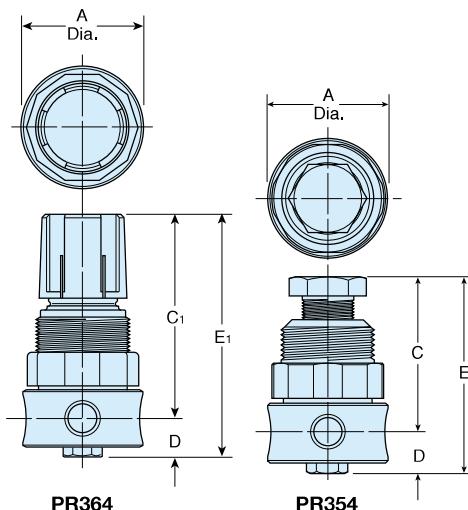
Stainless steel pressure gauge	M1/4G40S-10 (0 to 10 bar)
---------------------------------------	----------------------------------

Dimensions (mm) - 1/4"**Filters****Coalescing Filters**

A	C	D	E	F
40mm	8mm	94mm	102mm	40mm

Filter/Regulators

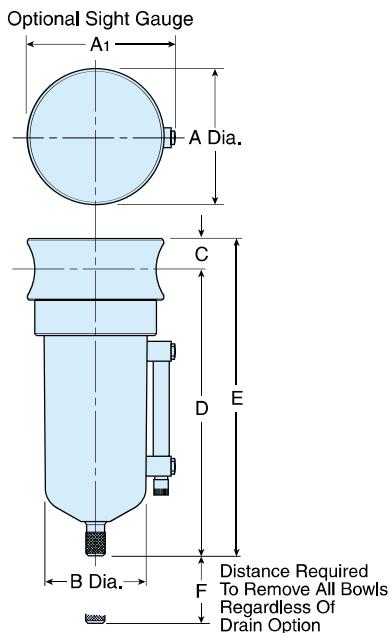
A	C	C ₁	D	E	E ₁	F
40mm	55mm	67mm	92mm	78mm	147mm	40mm

Regulators

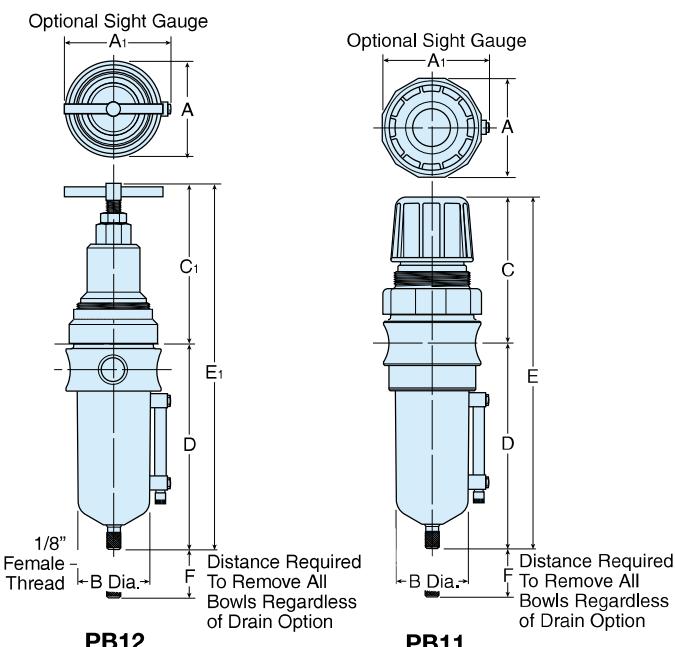
A	C	C ₁	D	E	E ₁
40mm	51mm	65mm	13mm	64mm	78mm

Service kits

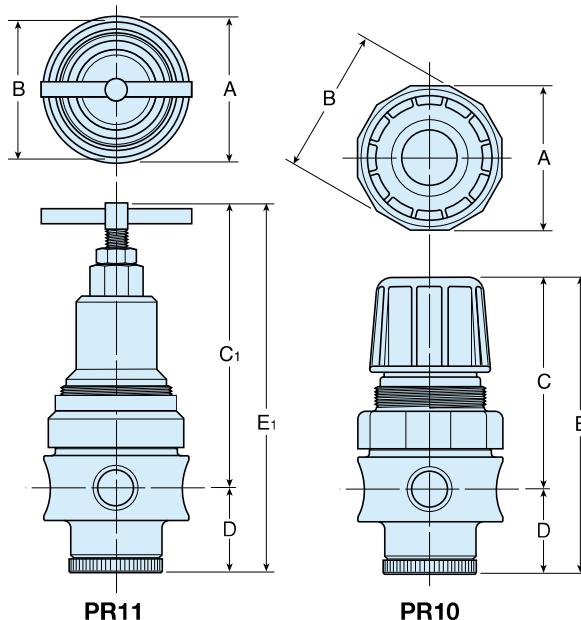
Port size	Description	Order Code
Filter		
1/4	20 micron particulate element	EK504Y
1/4	5 micron particulate element	EK504VY
1/2	40 micron particulate element	EK55J
1/2	5 micron particulate element	EK55G
Coalescing Filter		
1/4	0.3 micron coalescing element	EKF501H
1/2	0.01 micron coalescing element	EKF71
Regulator		
1/4	Relieving type	RKR364YSS
1/4	Non-relieving type	RKR36KYSS
1/2	Relieving type	RKR10YSS
1/2	Non-relieving type	RKR10KYSS
Filter/Regulator		
1/4	20 micron particulate element	EK504Y
1/4	5 micron particulate element	EK504VY
1/2	40 micron particulate element	EKF10Y
1/2	5 micron particulate element	EKF10VY
Lubricator		
Sight dome kit		RKL10SS

Dimensions (mm) - 1/2"**Filters****Coalescing Filters**

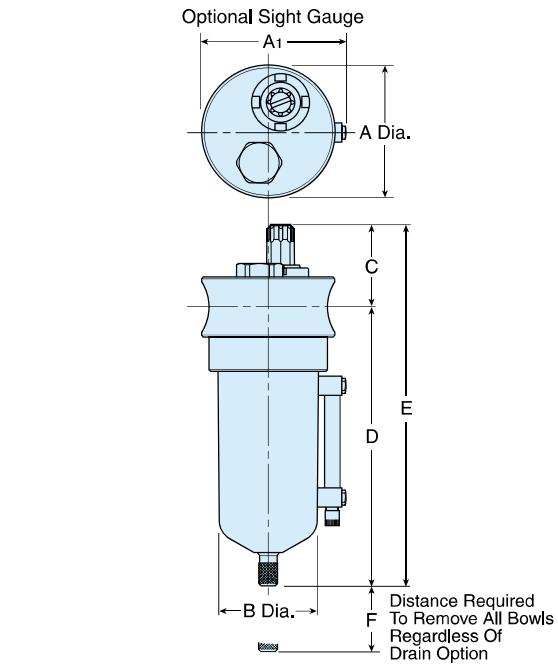
A	A ₁	B	C	D	E	F
60mm	64mm	44mm	14mm	127mm	141mm	54mm

Filter/Regulators

A	A ₁	B	C	C ₁	D	E	E ₁	F
60mm	64mm	44mm	91mm	119mm	127mm	218mm	246mm	54mm

Regulators

A	B	C	C ₁	D	E	E ₁
60mm	62mm	91mm	119mm	35mm	126mm	154mm

Lubricators

A	A ₁	B	C	D	E	F
60mm	64mm	44mm	46mm	127mm	173mm	89mm

High Efficiency 0.01 µm Filtration**Filtration Grade**

Filtration type	Coalescing
Particle removal (inc water & oil aerosols)	Down to 0.01 micron
Max remaining oil content at 21°C	0.01 mg/m ³ 0.01 ppm(w)
Filter efficiency	99.9999%
Test methods used	ISO 8573.2 ISO 8573.4 ISO 12500-1
ISO 12500-1 Inlet Challenge concentration	10 mg/m ³
Initial dry differential pressure	<140 mbar (2psi)
Initial saturated differential pressure	<200 mbar (3psi)
Change element every	12 months
Precede with filtration grade	1 micron Moduflex Coalescer

**Product selection**

Stated flows are for operation at 7 bar (g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

Port Size BSPT	Part Number	dm ³ /s	m ³ /hr	cfm	0.01 µm Replacement Element Kit
1/4"	P3TFA22CAAN	10	36	21	P3TKA00ESCA
3/8"	P3TFA23CBAN	20	72	42	P3TKA00ESCB
1/2"	P3TFA24CCAN	30	108	64	P3TKA00ESCC
3/4"	P3TFA26CDAN	60	216	127	P3TKA00ESCD
1 "	P3TFA28CEAN	110	396	233	P3TKA00ESCE
1.1/4"	P3TFA2ACEAN	110	396	233	P3TKA00ESCE
1.1/2"	P3TFA2BCFAN	160	576	339	P3TKA00ESCF
1.1/2"	P3TFA2BCGAN	220	792	466	P3TKA00ESCG
2"	P3TFA2CCHAN	330	1188	699	P3TKA00ESCH
2.1/2"	P3TFA2DCJAN	430	1548	911	P3TKA00ESCJ
3"	P3TFA2ECJAN	430	1548	911	P3TKA00ESCJ
2.1/2"	P3TFA2DCKAN	620	2232	1314	P3TKA00ESCK
3"	P3TFA2ECKAN	620	2232	1314	P3TKA00ESCK

Correction factors

Line pressure bar g	Line pressure psi g	Correction factor
1	15	0.38
2	29	0.53
3	44	0.65
4	58	0.76
5	73	0.85
6	87	0.93
7	100	1.00
8	116	1.07
9	131	1.13
10	145	1.19
11	160	1.25
12	174	1.31
13	189	1.36
14	203	1.41
15	218	1.46
16	232	1.51

Filter selection example

To find the correction factor for 8.5 bar g (122psi g) =

$$\sqrt{\frac{\text{System Operating Pressure}}{\text{Nominal Pressure}}} \\ = \sqrt{\frac{8.5 \text{ bar g}}{7 \text{ bar g}}} = 1.10$$

Selecting a filter model to match a system flow rate and pressure.

Example: System flow 1050 m³/hr at a pressure of 8.5 bar g

- Obtain pressure correction factor from table or calculate factor using method shown. Correction factor for 8.5 bar g = 1.10
- Divide system flow by correction factor to give equivalent flow rate at 7 bar g $1050 \text{ m}^3/\text{hr} \div 1.10 = 955 \text{ m}^3/\text{hr}$ (at 7 bar g)
- Select a filter model from the above table with a flow rate above or equal to 955 m³/hr. Filter model selected : P3TFA2CCHAN
- Select pipe connection & Thread type System uses 2" piping and BSP threads: Model P3TFA2CCHAN

High Efficiency 0.01 µm Filtration

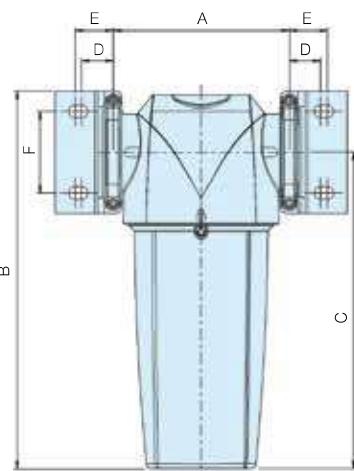
Technical data

Filter Grade	Drain type	Max operating pressure		Max recommended operating temp.		Min recommended operating temp.	
		bar g	psi g				
0.01 micron	Auto	16	232	80°C	176°F	1.5°C	35°F

Weights and dimensions

Optional Accessories

Port Size	Part Number	A	B	C	D	E	F	G	Weight	Modular Connection Kit	Wall Mounting Bracket Kit								
BSPT		mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs								
1/4"	P3TFA22CAAN	76.0	3.0	181.5	7.2	153.0	6.0	18.0	0.71	24.5	0.96	30.0	1.18	52.0	2.05	0.4	0.9	P3TKA00CBA	P3TKA00MWA
3/8"	P3TFA23CBAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MWB
1/2"	P3TFA24CCAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MWB
3/4"	P3TFA26CDAN	129.0	5.1	275.0	10.8	232.5	9.2	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.2	4.8	P3TKA00CBD	P3TKA00MWD
1"	P3TFA28CEAN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD	P3TKA00MWD
1.1/4"	P3TFA2ACEAN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD	P3TKA00MWD
1.1/2"	P3TFA2BCFAN	170.0	6.7	432.5	17.0	382.5	15.1	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	4.5	9.9	P3TKA00CBF	P3TKA00MWF
1.1/2"	P3TFA2BCGAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2"	P3TFA2CCCHAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2.1/2"	P3TFA2DCJAN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ	P3TKA00MWJ
3"	P3TFA2ECJAN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ	P3TKA00MWJ
2.1/2"	P3TFA2DCKAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MWJ
3"	P3TFA2ECKAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MWJ



DPI Kit

P3TKA00RQ

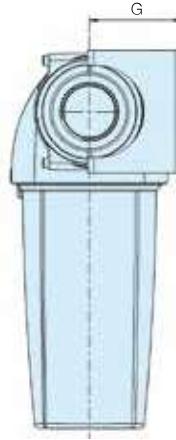
Incident Monitor

Used to indicate premature high differential pressure. Indicator can be retrofitted to existing housings without depressurising the system.



Wall Mounting Bracket Kit

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.



Modular Connection Kit

Fixing clamp allows quick and simple connection of multiple filter housings.

Drain Kits

Auto drain **P3TKA00DA**Manual drain **P3TKA00DM**

1 µm Filtration**Filtration Grade**

Filtration type	Coalescing
Particle removal (inc water & oil aerosols)	Down to 1 micron
Max remaining oil content at 21°C	0.06 mg/m ³ 0.05 ppm(w)
Filter efficiency	99.925%
Test methods used	ISO 8573.2 ISO 8573.4 ISO 12500-1
ISO 12500-1 Inlet Challenge concentration	40 mg/m ³
Initial dry differential pressure	<70 mbar (2psi)
Initial saturated differential pressure	<140 mbar (3psi)
Change element every	12 months
Precede with filtration grade	1 micron Moduflex Coalescer

**Product selection**

Stated flows are for operation at 7 bar (g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

Port Size BSPT	Part Number	dm ³ /s	m ³ /hr	cfm	1 µm Replacement Element Kit
1/4"	P3TFA229AAN	10	36	21	P3TKA00ES9A
3/8"	P3TFA239BAN	20	72	42	P3TKA00ES9B
1/2"	P3TFA249CAN	30	108	64	P3TKA00ES9C
3/4"	P3TFA269DAN	60	216	127	P3TKA00ES9D
1 "	P3TFA289EAN	110	396	233	P3TKA00ES9E
1.1/4"	P3TFA2A9EAN	110	396	233	P3TKA00ES9E
1.1/2"	P3TFA2B9FAN	160	576	339	P3TKA00ES9F
1.1/2"	P3TFA2B9GAN	220	792	466	P3TKA00ES9G
2"	P3TFA2C9HAN	330	1188	699	P3TKA00ES9H
2.1/2"	P3TFA2D9JAN	430	1548	911	P3TKA00ES9J
3"	P3TFA2E9JAN	430	1548	911	P3TKA00ES9J
2.1/2"	P3TFA2D9KAN	620	2232	1314	P3TKA00ES9K
3"	P3TFA2E9KAN	620	2232	1314	P3TKA00ES9K

Correction factors

Line pressure bar g	Line pressure psi g	Correction factor
1	15	0.38
2	29	0.53
3	44	0.65
4	58	0.76
5	73	0.85
6	87	0.93
7	100	1.00
8	116	1.07
9	131	1.13
10	145	1.19
11	160	1.25
12	174	1.31
13	189	1.36
14	203	1.41
15	218	1.46
16	232	1.51

Filter selection example

To find the correction factor for 8.5 bar g (122psi g) =

$$\sqrt{\frac{\text{System Operating Pressure}}{\text{Nominal Pressure}}} \\ = \sqrt{\frac{8.5 \text{ bar g}}{7 \text{ bar g}}} = 1.10$$

Selecting a filter model to match a system flow rate and pressure.
Example: System flow 1050 m³/hr at a pressure of 8.5 bar g

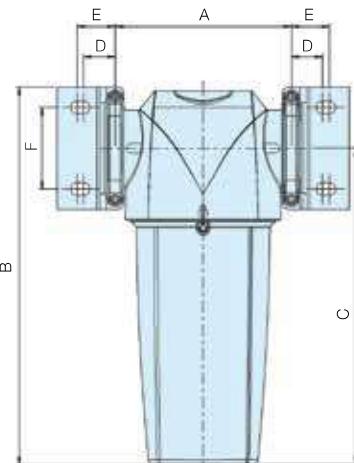
- Obtain pressure correction factor from table or calculate factor using method shown. Correction factor for 8.5 bar g = 1.10
- Divide system flow by correction factor to give equivalent flow rate at 7 bar g $1050 \text{ m}^3/\text{hr} \div 1.10 = 955 \text{ m}^3/\text{hr}$ (at 7 bar g)
- Select a filter model from the above table with a flow rate above or equal to 955 m³/hr. Filter model selected : P3TFA2C9HAN
- Select pipe connection & Thread type System uses 2" piping and BSP threads: Model P3TFA2C9HAN

1 µm Filtration**Technical data**

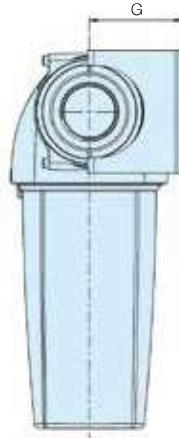
Filter Grade	Drain type	Max operating pressure		Max recommended operating temp.		Min recommended operating temp.	
		bar g	psi g	80°C	176°F	1.5°C	35°F
1 micron	Auto	16	232				

Weights and dimensions**Optional Accessories**

Port Size BSPT	Part Number	A mm	B ins	C mm	D ins	E mm	F ins	G mm	Weight kg	Modular Connection Kit	Wall Mounting Bracket Kit								
		mm	ins	mm	ins	mm	ins	mm	ins	kg	lbs								
1/4"	P3TFA229AAN	76.0	3.0	181.5	7.2	153.0	6.0	18.0	0.71	24.5	0.96	30.0	1.18	52.0	2.05	0.4	0.9	P3TKA00CBA	P3TKA00MWA
3/8"	P3TFA239BAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MWB
1/2"	P3TFA249CAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MWB
3/4"	P3TFA269DAN	129.0	5.1	275.0	10.8	232.5	9.2	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.2	4.8	P3TKA00CBD	P3TKA00MWD
1 "	P3TFA289EAN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD	P3TKA00MWD
1.1/4"	P3TFA2A9EAN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD	P3TKA00MWD
1.1/2"	P3TFA2B9FAN	170.0	6.7	432.5	17.0	382.5	15.1	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	4.5	9.9	P3TKA00CBF	P3TKA00MWF
1.1/2"	P3TFA2B9GAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2"	P3TFA2C9HAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2.1/2"	P3TFA2D9JAN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ	P3TKA00MWJ
3"	P3TFA2E9JAN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ	P3TKA00MWJ
2.1/2"	P3TFA2D9KAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MWJ
3"	P3TFA2E9KAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MWJ

**DPI Kit****P3TKA00RQ****Incident Monitor**

Used to indicate premature high differential pressure. Indicator can be retrofitted to existing housings without depressurising the system.

**Modular Connection Kit**

Fixing clamp allows quick and simple connection of multiple filter housings.

**Wall Mounting Bracket Kit**

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.

Drain KitsAuto drain **P3TKA00DA**Manual drain **P3TKA00DM**

Oil Vapour Removal Filter**Filtration Grade**

Filtration type	Oil vapour removal
Particle removal (inc water & oil aerosols)	N/A
Max remaining oil content at 21°C	0.003 mg/m ³ 0.003 ppm(w)
Filter efficiency	N/A
Test methods used	ISO 8573.5
ISO 12500-1 Inlet Challenge concentration	N/A
Initial dry differential pressure	<200 mbar (3psi)
Initial saturated differential pressure	N/A
Change element every	When oil vapour is detected
Precede with filtration grade	0.01 micron Moduflex Coalescer filter

**Product selection**

Stated flows are for operation at 7 bar (g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure. For flows at other pressures apply the correction factors shown.

Port Size BSPT	Part Number	dm ³ /s	m ³ /hr	cfm	Oil vapour removal Replacement Element Kit
1/4"	P3TFA22AAMN	10	36	21	P3TKA00ESAA
3/8"	P3TFA23ABMN	20	72	42	P3TKA00ESAB
1/2"	P3TFA24ACMN	30	108	64	P3TKA00ESAC
3/4"	P3TFA26ADMN	60	216	127	P3TKA00ESAD
1 "	P3TFA28AEMN	110	396	233	P3TKA00ESAE
1.1/4"	P3TFA2AAEMN	110	396	233	P3TKA00ESAE
1.1/2"	P3TFA2BAFMN	160	576	339	P3TKA00ESAF
1.1/2"	P3TFA2BAGMN	220	792	466	P3TKA00ESAG
2"	P3TFA2CAHMN	330	1188	699	P3TKA00ESAH
2.1/2"	P3TFA2DAJMN	430	1548	911	P3TKA00ESAJ
3"	P3TFA2EAJMN	430	1548	911	P3TKA00ESAJ
2.1/2"	P3TFA2DAKMN	620	2232	1314	P3TKA00ESAK
3"	P3TFA2EAKMN	620	2232	1314	P3TKA00ESAK

Correction factors

Line pressure bar g	Line pressure psi g	Correction factor
1	15	0.38
2	29	0.53
3	44	0.65
4	58	0.76
5	73	0.85
6	87	0.93
7	100	1.00
8	116	1.07
9	131	1.13
10	145	1.19
11	160	1.25
12	174	1.31
13	189	1.36
14	203	1.41
15	218	1.46
16	232	1.51
17	247	1.56
18	261	1.60
19	275	1.65
20	290	1.70

Filter selection example

Selecting a filter model to match a system flow rate and pressure.

Example: System flow 1050 m³/hr at a pressure of 8.5 bar g

- Obtain pressure correction factor from table or calculate factor using method shown. Correction factor for 8.5 bar g = 1.10
- Divide system flow by correction factor to give equivalent flow rate at 7 bar g
 $1050 \text{ m}^3/\text{hr} \div 1.10 = 955 \text{ m}^3/\text{hr}$ (at 7 bar g)
- Select a filter model from the above table with a flow rate above or equal to 955 m³/hr. Filter model selected : P3TFA2CAHMN
- Select pipe connection & Thread type System uses 2" piping and BSP threads: Model P3TFA2CAHMN

To find the correction factor for 8.5 bar g (122psi g) =

$$\sqrt{\frac{\text{System Operating Pressure}}{\text{Nominal Pressure}}} = \sqrt{\frac{8.5 \text{ bar g}}{7 \text{ bar g}}} = 1.10$$

Oil Vapour Removal Filter

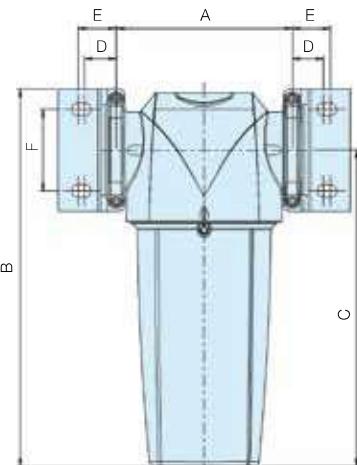
Technical data

Filter Grade	Drain type	Max operating pressure				Max recommended operating temp.				Min recommended operating temp.			
		bar g	psi g										
Oil vapour removal	Manual	20	290			100°C		212°F		1.5°C		35°F	

Weights and dimensions

Optional Accessories

Port Size BSPT	Part Number	A		B		C		D		E		F		G		Weight kg	Modular Connection Kit	Wall Mounting Bracket Kit
		mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	lbs		
1/4"	P3TFA22AAMN	76.0	3.0	181.5	7.2	153.0	6.0	18.0	0.71	24.5	0.96	30.0	1.18	52.0	2.05	0.4	0.9	P3TKA00CBA P3TKA00MWA
3/8"	P3TFA23ABMN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB P3TKA00MWB
1/2"	P3TFA24ACMN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB P3TKA00MWB
3/4"	P3TFA26ADMN	129.0	5.1	275.0	10.8	232.5	9.2	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.2	4.8	P3TKA00CBD P3TKA00MWD
1"	P3TFA28AEMN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD P3TKA00MWD
1.1/4"	P3TFA2AAEMN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD P3TKA00MWD
1.1/2"	P3TFA2BAFMN	170.0	6.7	432.5	17.0	382.5	15.1	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	4.5	9.9	P3TKA00CBF P3TKA00MWF
1.1/2"	P3TFA2BAGMN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF P3TKA00MWF
2"	P3TFA2CAHMN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF P3TKA00MWF
2.1/2"	P3TFA2DAJMN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ P3TKA00MWJ
3"	P3TFA2EAJMN	205.0	8.1	641.5	25.3	581.5	22.9	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	10.0	22.0	P3TKA00CBJ P3TKA00MWJ
2.1/2"	P3TFA2DAKMN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ P3TKA00MWJ
3"	P3TFA2EAKMN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ P3TKA00MWJ

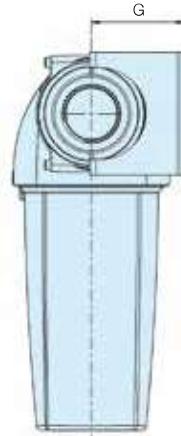


Modular Connection Kit

Fixing clamp allows quick and simple connection of multiple filter housings.

Wall Mounting Bracket Kit

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.



Drain Kits

Auto drain **P3TKA00DA**

Manual drain **P3TKA00DM**

High Efficiency Bulk Liquid Removal

- Tested in accordance with ISO 8573.9
- Performance independently verified by Lloyds Register
- High liquid removal efficiencies at all flow conditions
- Low pressure losses for low operational costs
- Multiple port sizes for a given flow rate provides increased flexibility during installation
- Suitable for variable flow compressors
- Works with all types of compressor and compressor condensate
- Low maintenance
- 10 Year Housing Guarantee

**Typical Applications**

- Bulk liquid removal at any point in a compressed air system
- Protection of refrigeration and adsorption dryer pre-filtration
- Liquid removal from compressor inter-coolers / after-coolers
- Liquid separation within refrigeration dryers

Product selection

Stated flows are for operation at 7 bar (g) with reference to 20°C, 1 bar (a), 0% relative water vapour pressure.

Port Size	Part Number	dm ³ /s	m ³ /hr	cfm	Max operating pressure		Max Operating temperature		Min Operating temperature		Correction factors		
					bar g	psi g	°C	°F	°C	°F	Line pressure bar g	psi g	Correction factor
1/4"	P3TFA22WAAN	10	36	21	16	232	80	176	1.5	35	1	15	0.25
3/8"	P3TFA23WBAN	40	144	85	16	232	80	176	1.5	35	2.29	0.38	3
1/2"	P3TFA24WCAN	40	144	85	16	232	80	176	1.5	35	440.50		4 58
3/4"	P3TFA26WDAN	110	396	233	16	232	80	176	1.5	35	0.63		5 73
1"	P3TFA28WEAN	110	396	233	16	232	80	176	1.5	35	0.75		6 87
1.1/4"	P3TFA2AWFAN	350	1260	742	16	232	80	176	1.5	35	0.88		7 100
1.1/2"	P3TFA2BWGAN	350	1260	742	16	232	80	176	1.5	35	1.00		8 116
2"	P3TFA2CWHAN	350	1260	742	16	232	80	176	1.5	35	1.06		9 131
2.1/2"	P3TFA2DWKAN	800	2880	1695	16	232	80	176	1.5	35	1.12		10 145
3"	P3TFA2EWKAN	800	2880	1695	16	232	80	176	1.5	35	1.17		11 160
											1.22		12 174
											1.27		13 189
											1.32		14 203
											1.37		15 218
											1.41		16 232
											1.46		

Filter selection example

To find the correction factor for 8 bar g =

$$\sqrt{\frac{\text{System Operating Pressure}}{\text{Nominal Pressure}}} = \sqrt{\frac{8 \text{ bar g}}{7 \text{ bar g}}} = 1.06$$

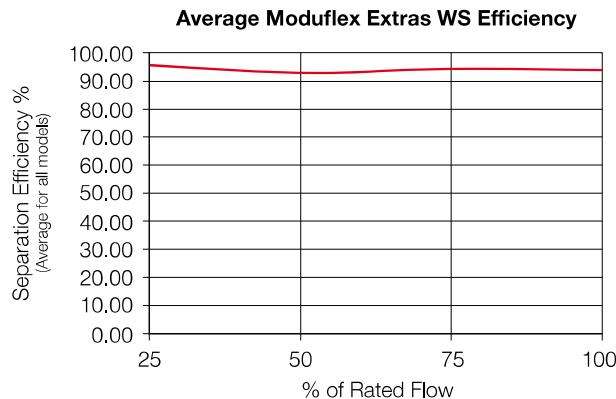
Selecting a Water Separator model to match a system flow rate and pressure.

Example: System flow 1050 m³/hr at a pressure of 8 bar g

1. Obtain pressure correction factor from table.
Correction factor for 8 bar g = 1.06
2. Divide system flow by correction factor to give equivalent flow rate at 7 bar g
 $1050 \text{ m}^3/\text{hr} \div 1.06 = 984 \text{ m}^3/\text{hr}$ (at 7 bar g)
3. Select a filter model from the above table with a flow rate above or equal to 984 m³/hr. Suitable Water Separator models : P3TFA2AWFAN
P3TFA2BWGAN
P3TFA2AWHAN
4. Select pipe connection & Thread type
System uses 1.1/2" piping and BSP threads: Model P3TFA2BWGAN

High Efficiency Bulk Liquid Removal

Separation Efficiency



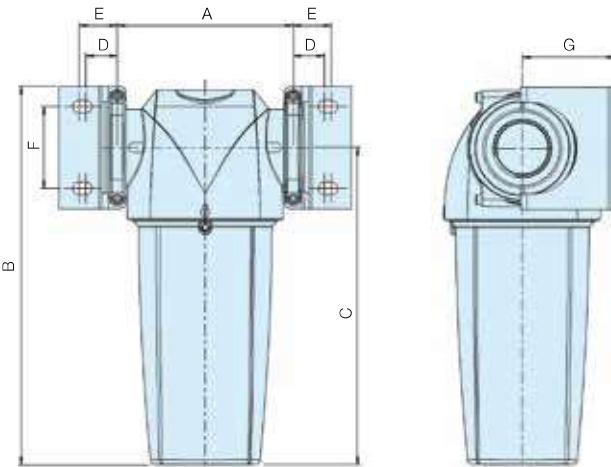
Tested with an inlet challenge concentration of 33ml/m³hr and in accordance with ISO 8573.9.

Performance shown is an average for all models in range. Individual model performance available on request.

Weights and dimensions

Optional Accessories

Port Size BSPT	Part Number	A		B		C		D		E		F		G		Weight kg	Weight lbs	Modular Connection	Wall Mounting Bracket Kit
		mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins				
1/4"	P3TFA22WAAN	76.0	3.0	181.5	7.2	153.0	6.0	18.0	0.71	24.5	0.96	30.0	1.18	52.0	2.05	0.4	0.9	P3TKA00CBA	P3TKA00MW
3/8"	P3TFA23WBAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MW
1/2"	P3TFA24WCAN	97.5	3.8	235.0	9.3	201.0	7.9	20.5	0.81	25.5	1.00	40.0	1.57	60.0	2.36	1.0	2.2	P3TKA00CBB	P3TKA00MW
3/4"	P3TFA26WDAN	129.0	5.1	275.0	10.8	232.5	9.2	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.2	4.8	P3TKA00CBD	P3TKA00MW
1 "	P3TFA28WEAN	129.0	5.1	364.5	14.3	322.0	12.7	23.0	0.91	28.0	1.10	60.0	2.36	68.0	2.68	2.6	5.7	P3TKA00CBD	P3TKA00MW
1.1/4"	P3TFA2BWFAN	170.0	6.7	432.5	17.0	382.5	15.1	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	4.5	9.9	P3TKA00CBF	P3TKA00MWF
1.1/2"	P3TFA2BWGAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2"	P3TFA2CWHAN	170.0	6.7	524.5	20.6	474.5	18.7	32.0	1.26	39.0	1.54	84.0	3.31	92.0	3.62	5.3	11.6	P3TKA00CBF	P3TKA00MWF
2.1/2"	P3TFA2DWKAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MW
3"	P3TFA2EWKAN	205.0	8.1	832.0	32.8	772.0	30.4	35.5	1.40	42.5	1.67	100.0	3.94	135.0	5.31	12.0	26.4	P3TKA00CBJ	P3TKA00MW



Modular Connection Kit

Fixing clamp allows quick and simple connection of multiple filter housings.



Wall Mounting Bracket Kit

Mounting brackets provide additional support to filters installed in flexible piping systems or OEM equipment.

Selection Criteria

To correctly select the dryer best suited for your application, the following details are required to ensure optimum performance and trouble free operation.

- **Maximum Inlet Flow.**
- **Minimum Inlet Pressure.**
- **Maximum Inlet Temperature.**

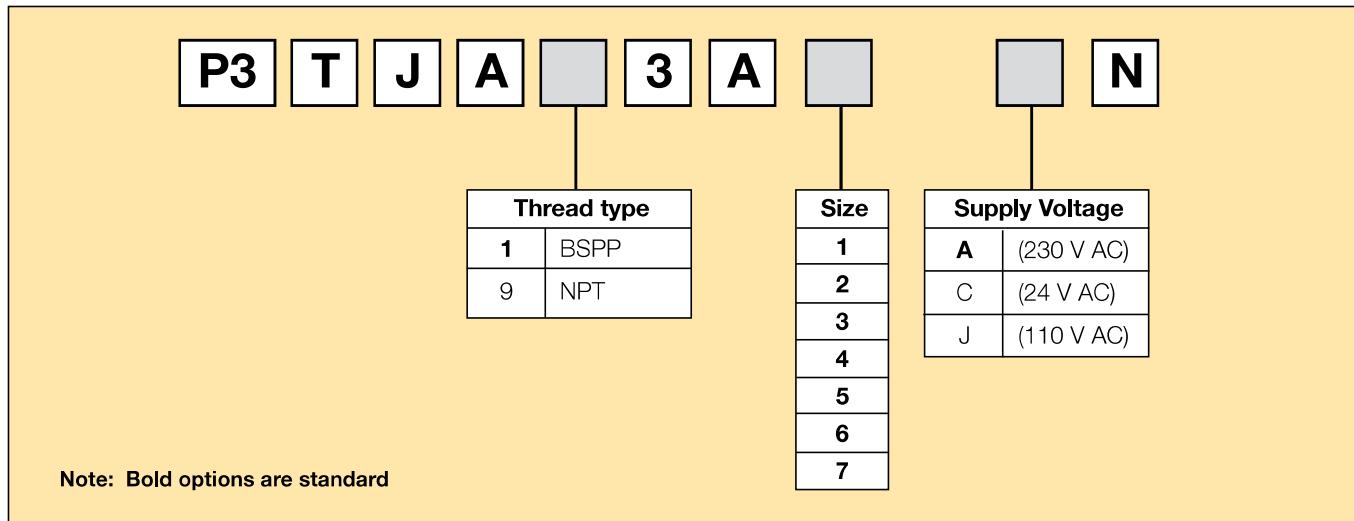
Once these operating parameters have been established, you can select the most economical Dry Air System for your application.



Technical Specifications

Flow Range:	85 L/min to 567 L/min at 7 bar
Minimum Operating Pressure:	4 bar
Maximum Operating Pressure:	12 bar
Minimum Operating Temperature:	1.5°C
Maximum Inlet Temperature:	50°C
Noise Level (Average):	≤ 70dB(A)
Pressure Dewpoint	(Standard): -40°C pdp (Optional): -70°C pdp
Standard Electrical Supply:	230/1ph/50Hz (Tolerance +/- 10%) 115/1ph/60Hz (Tolerance +/- 10%)
Controls:	Electronic Control Timer
Inlet Connections:	G3/8
Outlet Connections:	G3/8

Ordering Information

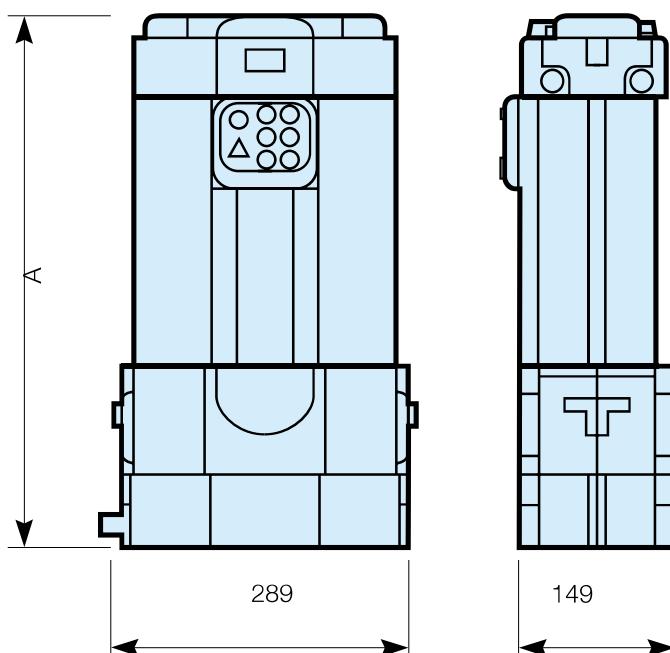


Standard nominal flow rate qnN (NL/min) at pressure dew point -40°C

Model	Port Size	Max inlet temperature	Inlet Pressure (bar)								
			4	5	6	7	8	9	10	11	12
P3TJA13A1AN	3/8"	20°C	53	63	75	85	82	92	100	110	118
	3/8"	35°C	33	47	66	85	80	99	118	142	165
	3/8"	40°C	32	46	64	82	77	97	114	138	160
	3/8"	45°C	29	42	58	75	70	87	104	125	145
	3/8"	50°C	24	35	48	62	58	73	86	103	142
P3TJA13A2AN	3/8"	20°C	90	107	125	142	137	153	167	183	198
	3/8"	35°C	57	80	110	142	133	165	197	236	277
	3/8"	40°C	55	78	106	138	129	161	190	229	269
	3/8"	45°C	50	71	96	125	116	145	174	209	244
	3/8"	50°C	41	59	80	104	97	121	144	172	238
P3TJA13A3AN	3/8"	20°C	143	170	200	277	220	245	267	292	317
	3/8"	35°C	90	128	176	227	213	265	315	377	444
	3/8"	40°C	87	124	170	220	207	257	304	365	431
	3/8"	45°C	79	112	154	200	187	233	278	333	390
	3/8"	50°C	66	94	128	166	156	194	230	274	380
P3TJA13A4AN	3/8"	20°C	178	213	250	283	275	307	335	365	397
	3/8"	35°C	112	160	220	283	267	332	395	471	556
	3/8"	40°C	109	155	213	275	259	322	382	456	540
	3/8"	45°C	98	141	193	249	234	292	348	416	488
	3/8"	50°C	82	117	160	207	195	243	288	343	476
P3TJA13A5AN	3/8"	20°C	232	277	323	368	357	398	435	475	515
	3/8"	35°C	146	208	284	368	346	430	513	613	721
	3/8"	40°C	142	202	275	357	336	418	496	594	700
	3/8"	45°C	128	183	249	324	303	378	452	542	633
	3/8"	50°C	107	152	207	269	253	314	374	447	618
P3TJA13A6AN	3/8"	20°C	268	318	373	425	412	458	502	548	595
	3/8"	35°C	169	239	328	425	400	495	592	707	833
	3/8"	40°C	163	232	317	412	387	481	572	685	809
	3/8"	45°C	147	210	287	374	350	435	522	625	732
	3/8"	50°C	123	175	239	310	293	362	432	515	714
P3TJA13A7AN	3/8"	20°C	357	425	498	567	550	612	668	732	793
	3/8"	35°C	225	319	438	567	534	661	788	944	1110
	3/8"	40°C	218	310	423	550	517	643	762	915	1078
	3/8"	45°C	196	281	383	499	468	581	695	834	975
	3/8"	50°C	164	234	319	414	391	483	574	688	952

Weights and Dimensions

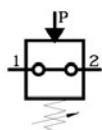
Model	Dimensions mm (ins) A	Weight kg (lbs)
P3TJA13A1AN	422 (16.6)	11 (24.2)
P3TJA13A2AN	500 (19.7)	13 (28.7)
P3TJA13A3AN	616 (24.2)	16 (35.3)
P3TJA13A4AN	692 (27.2)	18 (39.7)
P3TJA13A5AN	847 (33.3)	20 (44.1)
P3TJA13A6AN	906 (35.7)	23 (50.7)
P3TJA13A7AN	1098 (43.2)	28 (61.7)

**Service Kits**

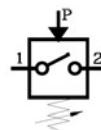
Model	Service Kit
P3TJA13A1AN	P3TKA00JA1
P3TJA13A2AN	P3TKA00JA2
P3TJA13A3AN	P3TKA00JA3
P3TJA13A4AN	P3TKA00JA4
P3TJA13A5AN	P3TKA00JA5
P3TJA13A6AN	P3TKA00JA6
P3TJA13A7AN	P3TKA00JA7

Mounting Kits

Description	Kit
Fixed Wall Mounting Bracket	P3TKA00MJ
45° Tilt Wall Mounting Bracket	P3TKA00MK

Pressure Switches G1/8", G1/4"

Break contact



Make contact

Characteristics

Safety pressure relief P_{max}	300 bar
Port size	G1/8, G1/4
Weight (mass)	0.090 kg
Medium and ambient T_{max} temperature range	+100 °C
Switch back difference	Max. 5 - 15%
Voltage	Max. 48 V
Current	0.5 A
Electrical connection	Plug contacts, plug
Degree of protection	IP 65 with plug
Switching frequency	Max. 200 s/min

Material

Housing	Passivated steel
Diaphragm	Buna N

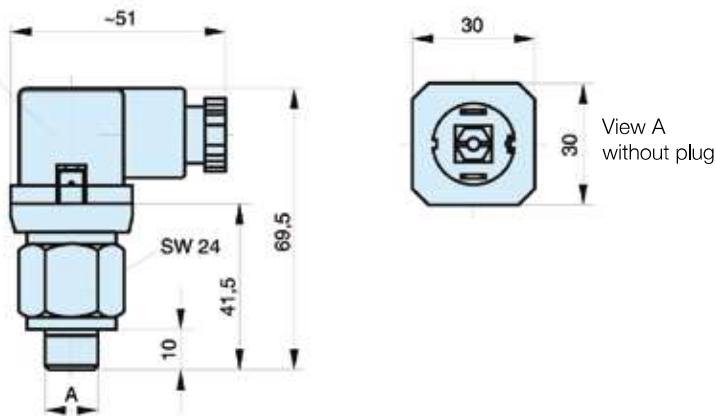
Switching function

Make contact	Closes the circuit when the set pressure is reached
Break contact	Interrupts the circuit when the set pressure is reached

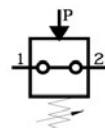
Dimensions and order instructions

Order instructions	Port size (bar)	Function	Setting range	Order code	Type	A
PR / 0.1-1 NC ST 1/4 48	G1/4	Break contact	0.1-1	KL3439		
PR / 0.1-1 NO ST 1/4 48	G1/4	Make contact	0.1-1	KL3440		
PR / 1-10 NC ST 1/8 48	G1/8	Break contact	1-10	KL3437		
PR / 1-10 NC ST 1/4 48	G1/4	Break contact	1-10	KL3436		
PR / 1-10 NO ST 1/8 48	G1/8	Make contact	1-10	KL3438		
PR / 1-10 NO ST 1/4 48	G1/4	Make contact	1-10	KL3435		

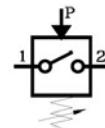
Plug can be turned 90°



Dimensions in mm

Pressure Switches G1/8", G1/4"

Break contact

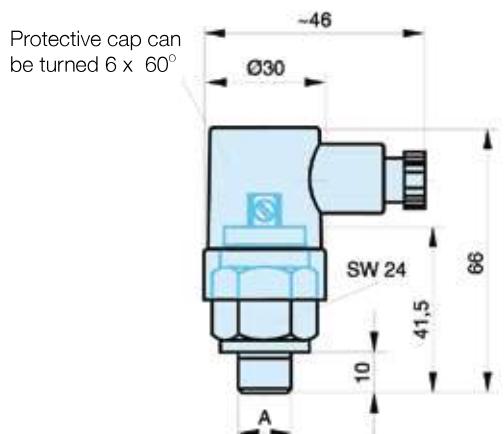


Make contact

Characteristics		Material	
		Make contact	Break contact
Safety pressure relief P_{max}	300 bar	Housing	Passivated steel
Port size	G1/8, G1/4	Diaphragm	Buna N
Weight (mass)	0.075 kg		
Medium and ambient T_{max} temperature range	+100 °C		
Switch back difference	Max. 5 - 15%		
Voltage	Max. 48 V		
Current	0.5 A		
Electrical connection	Flat pin plug, protective cap		
Degree of protection	IP 65 with protective cap		
Switching frequency	200 s/min		

Dimensions and order instructions

Order instructions	Port size (bar)	Function	Setting range	Order code	Type	A
PR / 0.2-1 NO SR 1/4 48	G1/4	Make contact	0.2-1	KL3445		
PR / 0.1-1 NC SR 1/4 48	G1/4	Break contact	0.1-1	KL3454		
PR / 0.1-1 NO SR 1/4 48	G1/4	Make contact	0.1-1	KL3455		
PR / 1-10 NC SR 1/8 48	G1/8	Break contact	1-10	KL3452		
PR / 1-10 NC SR 1/4 48	G1/4	Break contact	1-10	KL3451		
PR / 1-10 NO SR 1/8 48	G1/8	Make contact	1-10	KL3453		
PR / 1-10 NO SR 1/4 48	G1/4	Make contact	1-10	KL3450		

View A
without protective cap

Dimensions in mm

Pressure Switches G1/8", G1/4"

Series G1/4-..I / ..P

- Suited for intrinsically safe operation
- Especially compact design
- High switching frequency
- Attractive design
- Shock proof up to 30 g



Characteristics

Type - thread version	G1/4-0I*	G1/4-2I	G1/4-8I	G1/4-16I	Voltage type	AC and DC
Type - flange version	G1/4-0P*	G1/4-2P	G1/4-8P	G1/4-16P	Operating current and	AC12 to VDE0660 4A at 250 VAC AC14 to VDE0660 1A at 250 VAC DC12 to VDE0660 3A at 28 VDC DC13 to VDE0660 1A at 28 VDC
Setting range P _{min/max} (bar)	-1 to 0	0.2-2	0.5-8	1-16		
Safety pressure relief P _{max}	80	80	80	80		
Port size	Type I: G1/4 internal thread, Type P: flange				CE marking	To EC Directive 73/23/EWG
Mounting	2 through holes Ø 5.2				Electrical connection	Plug to DIN EN 175301-803, Form A, ISO4400 or M12x1 - 4-pin
Installation	In any position				Degree of protection	IP65
Weight (mass)	0.275 kg				Switching element	Pole changing switch with catch spring as switching element, with self-cleaning contacts
Medium	Filtered compressed air (10µm), lubricated or unlubricated				Switching frequency	Max. 200 s/min
Medium and ambient T _{min}	-10 °C					
temperature range T _{max}	+80 °C					
Consistency	±2 in relation to end-of-range value					
Hysteresis, vacuum version	<15%					* for vacuum operation
Vibration resistance	10 g (10 ... 2000 Hz)					
Shock resistance	30 g					
Voltage	Max. 250 V					

Material

Housing	Special aluminium die casting,
powder coated	

Diaphragm, seals Buna N

Selection and Mounting:

Range selection:

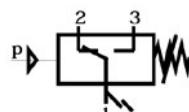
Selection is optimal when the switching points are in the middle of the switching range.

Electrical connection:

Wiring according to VDE regulations.

Tightening torque for plug: 0.7 ± 0.1 Nm

Outdoor use only with sufficient protection against critical environmental conditions (e.g. aggressive atmosphere, salty environments, high temperature changes).



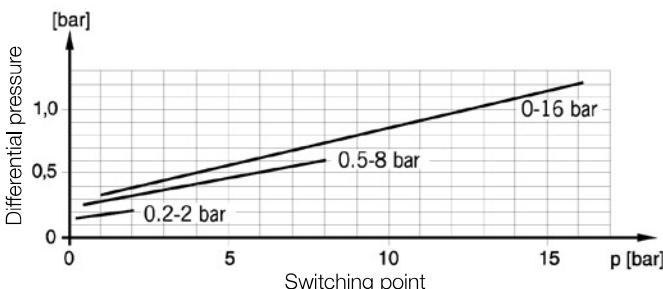
Pin 1 - 3:

Rising pressure makes contact.

Pin 1 - 2:

Rising pressure breaks contact.

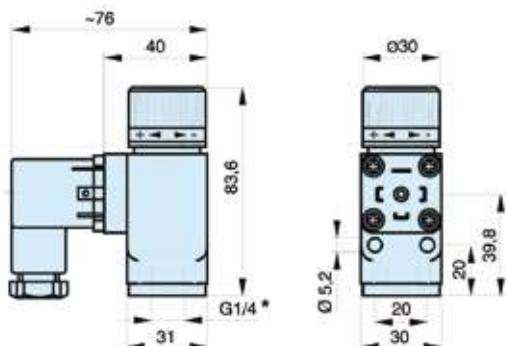
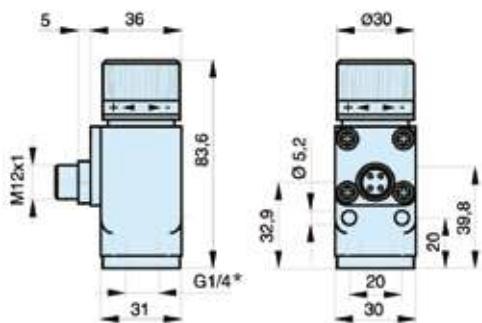
Switch back difference



Delivery includes:

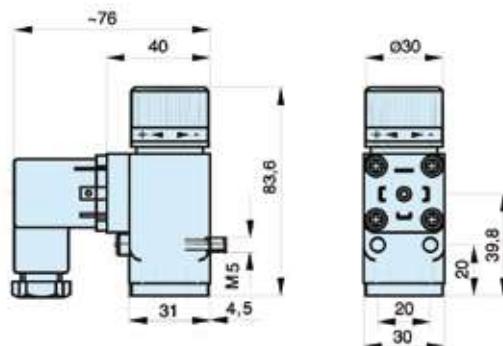
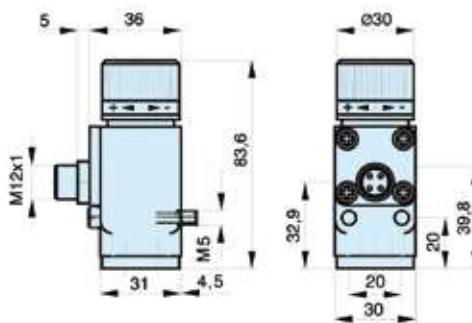
The flange version (surface roughness of flange surface 12µm) is supplied with an O-ring 5 x 1.5mm and 2 screws 5 x 35 DIN 912. Minimum thread length to be used: 4mm.

Max. diameter of the pressure opening 3mm.

Dimensions (mm)**Version with internal thread and plug****with M12 connector**

* Thread 11mm deep

Setting range (bar)	Type	Order code
-1 to 0	G1/4-0I-DIN	KL3200
-1 to 0	G1/4-0I-M12	KL3208
0.2 to 2	G1/4-2I-DIN	KL3201
0.2 to 2	G1/4-2I-M12	KL3209
0.5 to 8	G1/4-8I-DIN	KL3202
0.5 to 8	G1/4-8I-M12	KL3210
1.0 to 16	G1/4-16I-DIN	KL3203
1.0 to 16	G1/4-16I-M12	KL3211

Flange version and plug**with M12 connector**

Setting range (bar)	Type	Order code
-1 to 0	G1/4-0P-DIN	KL3204
-1 to 0	G1/4-0P-M12	KL3212
0.2 to 2	G1/4-2P-DIN	KL3205
0.2 to 2	G1/4-2P-M12	KL3213
0.5 to 8	G1/4-8P-DIN	KL3206
0.5 to 8	G1/4-8P-M12	KL3214
1.0 to 16	G1/4-16P-DIN	KL3207
1.0 to 16	G1/4-16P-M12	KL3215

Plugs to DIN EN 175301-803, Form A, ISO 4400**Standard version****Version with LEDs****Plugs to DIN EN 175301-803, Form A, ISO 4400**

Description	Type	Order code
Standard version	GSD-30DS	KL3349
Version with LEDs 24 V	GSD-30DSL24V	KL3350
Version with LEDs 230 V	GSD-30DSL230V	KL3351

Pressure Switches Electronic Series EDP

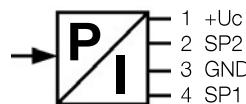
The EDP electronically actuated pressure switches are used to convert pneumatic signals into electrical signals. The pressure range 0-16 bar can be adjusted individually, in either bar or psi.

The pressure switches can be used as threshold value comparators with one hysteresis or as window comparators with two hystereses.

A robust ceramic measuring cell acts as a measured value transducer.

- Simple, menu-driven programming via 3 membrane keys
- 3-digit red LED display (pressure gauge function)
- Electronic locking
- Versions for specific applications on request

Symbol



Characteristics

Type - flange version	EDP-V	EDP	Voltage	18 - 32 V
Setting range P _{min/max} (bar)	-1 to 0	0-16	Voltage type	Direct current
Safety pressure relief P _{max}	100 bar	100 bar	Power consumption	< 80 mA without switching outlet
Port size	Flange connection		Switching current	SP1 max. 1.3 A (PIN4) SP2 / ERROR max. 0.3A (PIN2)
Display	3 digit, red 7-Segment LED-Display, programmable 0°/180°		Switching logic	NO / NC programmable
Display for operating status	LED red/green		Switching outlet	Short circuit proof
Linearity %	<± 0.2 to 1.5 p _N		Electrical connection	Plug M12x1
TK zero point %	<± 0.2 p _N		Degree of protection	IP67 to EN 60529
Installation	In any position			
Weight (mass)	0.100 kg			
Medium	Filtered compressed air, lubricated or unlubricated, weakly acidic or weakly alkaline fluids			
Ambient T _{min}	-20 °C		Housing	PA, part in contact with medium: Al
temperature range T _{max}	+70 °C		Measuring cell	Ceramic
Medium T _{min}	-20 °C		Seals	Buna N, part in contact with medium: FKM
temperature range T _{max}	+70 °C			

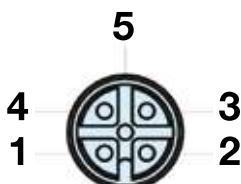
Material

Housing	PA, part in contact with medium: Al
Measuring cell	Ceramic
Seals	Buna N, part in contact with medium: FKM

Applications

- Pneumatic control systems
- Pressing technology
- Welding technology
- Packing machines and filling systems
- Test systems
- Clamping systems
- Plastic blow-moulding machinery
- Robotics and handling industry

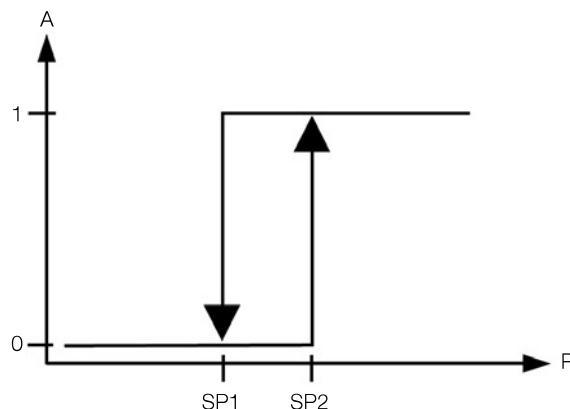
Connection diagram



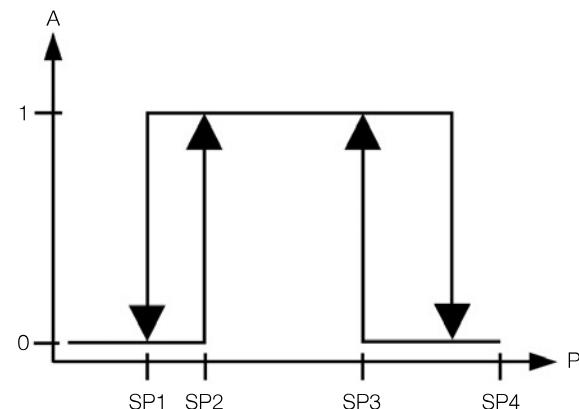
Electrical connection	
1 = bn (brown)	+Uc
2 = ws (white)	SP2
3 = bl (blue)	GND
4 = sw (black)	SP1

Threshold value comparator / window value comparator functions

Threshold value comparator with hysteresis

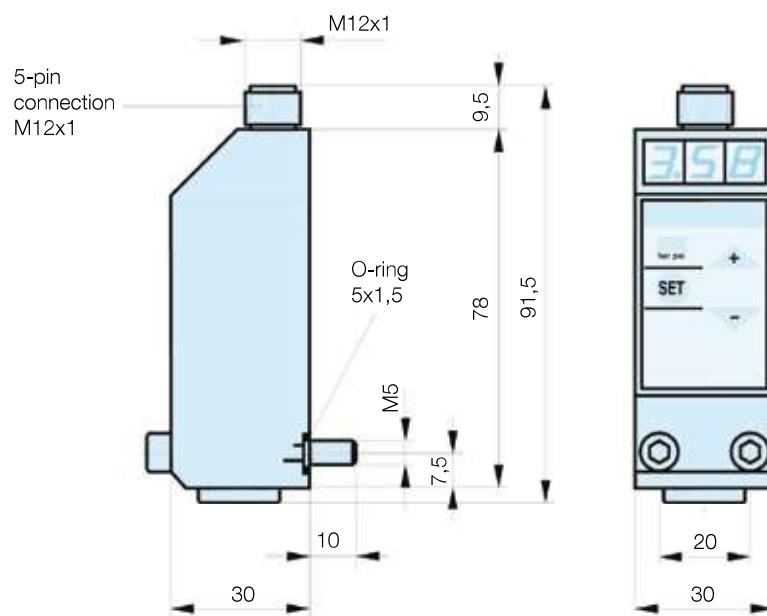


Window comparator with 2 hystereses



The illustrations show the NO (normally open) presetting.
For the NC (normally closed) presetting, the diagrams are horizontally mirror-imaged, so that the start value is at 1.

Dimensions - Flange version with M12x1 connector



Setting range (bar)	Type	Order code
-1 to 1	EDP-V	KL3385
0 to 16	EDP	KL3384

Dimensions in mm.

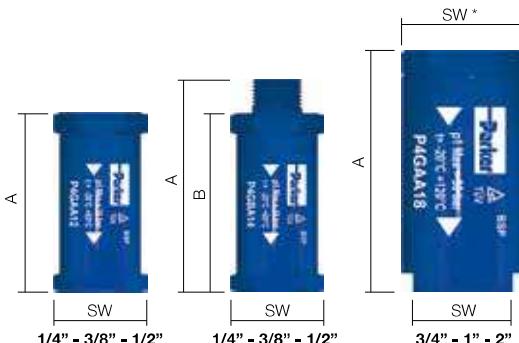
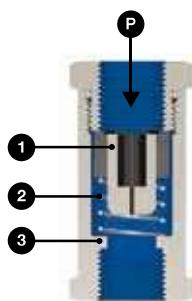
Protect your most important assets: your employees and their equipment!

The AirGuard offers simple but efficient protection to pneumatic systems in the event of a broken compressed-air hose or pipe. The air supply is immediately shut off by the AirGuard, should the volume of air exceed a set value. This "value" is factory preset and is set to allow normal air consumption when using air tools.

Should the air consumption exceeds the set value, e.g. the air line is severed, then the internal piston instantly shuts off the main flow. An integral bleed hole allows some air to flow though. This enables the line pressure to automatically reset the AirGuard once the main line break is repaired.

Function:

(P) is the inlet. The air flows over piston (1) and continues through seat (3). The flow of air over the piston is slowed down by several longitudinal grooves on the exterior of the piston. If the flow becomes excessive, the current of air cannot flow over the piston quickly enough. The piston is then pressed against spring (2) beneath it, and towards the seat. If the flow is exceeded, for example, if the hose suddenly breaks, the air supply is automatically shut off.



Management Responsibility:

It is the duty of management to ensure a safe working environment for their employees and that the equipment complies with **ISO 4414** or "**PUWER**" (the Provision and Use of Work Equipment Regulations)

Complies with the 2010 ISO4414 (5.4.5.11.1)

"When failure of a hose assembly or plastic piping constitutes a whiplash hazard, it shall be restrained or shielded by suitable means. In addition, an air fuse for compressed air should be mounted."

Special Applications

Stainless Steel AirGuard available in 1/2" size

Some branches of industry with a high hazard potential, such as chemical and pharmaceutical as well as clean room and offshore technologies place extremely high demands on both the safety of their employees and the protection of their facilities. Compressed air is typically used as an energy transfer medium in these industries and is no means without its dangers: compressed air hoses can rupture or burst, as can fixed pipes. This may expose personnel working in such areas to extreme hazards as well as potential damage to expensive facilities and costly production downtime.



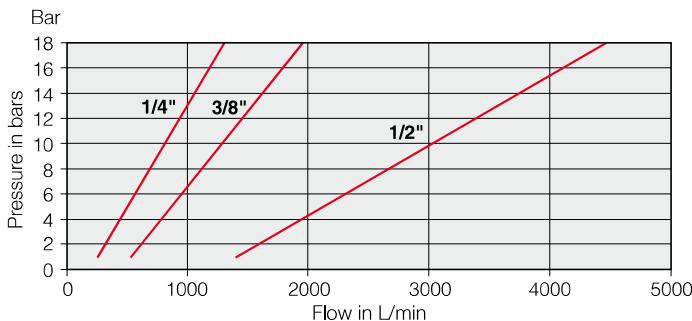
Technical Data and Ordering Information

Thread connection BSP	dimensions (mm)			Weight (g)	Maximum inlet pressure	Temperature range	Material	P1 inlet thread	P2 outlet thread	Order Code	
	A	B	SW								
1/4"	48	-	22	30	18 bar (255 PSIG)	-20°C to 80°C (-4°F to 176°F)	Housing: aluminium Piston: polyoxy-methylene	female	female	P4GAA12	
1/4"	58	49	22	36				male	female	P4GBA12	
3/8"	59	-	27	58				female	female	P4GAA13	
3/8"	71	59	27	62				male	female	P4GBA13	
1/2"	65	-	30	78				female	female	P4GAA14	
1/2"	80	65	30	85				male	female	P4GBA14	
1/2"	62	-	28	132	Housing: stainless steel Piston: polyoxy-methylene	-20°C to 120°C (-4°F to 248°F)	Housing: aluminium Piston: aluminium	female	female	P4GCA14	
3/4"	76	-	30 / 36*	107				female	female	P4GAA16	
1"	100	-	41 / 50*	300	35 bar (500 PSIG)	-20°C to 120°C (-4°F to 248°F)		female	female	P4GAA18	
2"	130	-	70 / 80*	775				female	female	P4GAA1C	

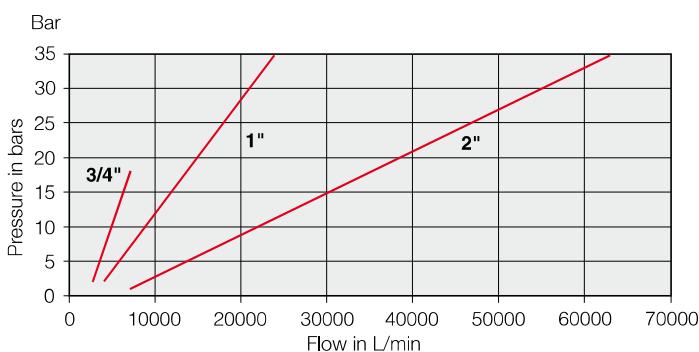
Note: NPT version available on request - 1/4" high flow version available on request.

Closing Flow Graphs

1/4", 3/8" and 1/2" flow rates



3/4", 1" and 2" flow rates



Dimensioning of compressed air hoses and equipment

Connection Size	Hose length 0 to 10 meters			Hose length 10 to 20 meters		
	Inner diameter Minimum mm	Minimum pressure bar	Flow at 6 bar l/min	Inner diameter minimum	Minimum pressure bar	Flow at 6 bar l/min
1/4"	7	4	480	8	4	480
3/8"	10	4	1100	12	4	1100
1/2"	12	4	2000	14	4	2000
3/4"	18	4	3800	20	4	3800
1"	24	4	6500	26	4	6500
2"	45	4	16000	50	4	16000

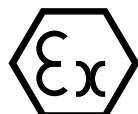
If the pressure is lower than stated in the table, a hose with a larger internal diameter must be used.

To select the correct size AirGuard, the pneumatic tool or equipment must have a maximum flow requirement to the left of the red line.

e.g.: 15 bar @20000 L/m = 2" size AirGuard
8 bar @1000 L/m = 3/8" size AirGuard



TÜV Approval: 01-02-0145



ATEX

These products are out of scope of the ATEX Directive 94/9/EC; however they can be used in a Group II Category 2 environment assuming that the ATEX Directive and the following conditions are complied with:

- Maximum working temperature to be as stated on product label.
- Product cleaning must be undertaken using a method complying with the specification of the ATEX Zone, preferably by aspiration and/or utilization of Antistatic Products.
- Deposits of dust on the product must not exceed 5mm thickness.
- Installation and Maintenance of the product must be done by a qualified personnel.
- Do not mount products in an area where Impact may occur.

AirGuard - P4G for zone 1, 21

Complies with: ISO 4414 5.4.5.11

Failure of hose assemblies and plastic piping 5.4.5.11.1

"When failure of a hose assembly of plastic piping constitutes a whiplash hazard, it shall be restrained or shielded by suitable means. In addition, **an air fuse for compressed air should be mounted**"

Table 1: Dimensioning of compressed air hoses and equipment

Thread	Hose length 0 to 10 meters			Hose length 10 to 20 meters		
	Inner diameter Minimum mm	Minimum pressure bar	Flow at 6 bar l/min	Inner diameter minimum	Minimum pressure bar	Flow at 6 bar l/min
1/4"	7	4	480	8	4	480
3/8"	10	4	1100	12	4	1100
1/2"	12	4	2000	14	4	2000
3/4"	18	4	3800	20	4	3800
1"	24	4	6500	26	4	6500
2"	45	4	16000	50	4	16000

If the pressure is lower than stated in the table, a hose with a larger internal diameter must be used.

A range of speed controls, flow controls and back pressure sensors designed to be mounted directly onto the cylinder in the optimum position for maximum performance.

- "Push-in" or threaded connection
- Multifunction options
- Fit directly to cylinder ports
- Swivelling pilot banjo
- Pneumatic, Electric or Electronic back pressure sensor



For ATEX specific products contact Sales Office



Operating information

Working pressure:

PWR-L, PWR-H, PWR-A, PWR-B PWB-A, PWS-M, PWS-E, PWS-P PWA-L	1-10 bar 0-10 bar 0,2-10 bar
-------------------------------------------------------------------------	------------------------------------

Working temperature : -15°C to +60°C
PWR-L : -15°C to +70°C

Pilot pressure at 6 bar supply:

PWB-A and PWR-HB PWS-P111 PWS-M1012 PWS-E101 and E111	(1/8", 1/4" versions) (1/2" and 3/8" versions)	: 4 bar : 2,9 bar : 4,4 bar : 1,5 bar : 0,7 bar
----------------------------------------------------------------	---------------------------------------------------	-------------------------------------------------------------

For more information see www.parker.com/euro_pneumatic

2/2 Blockers

Symbol	Connection for pilot port	Thread for cylinder connection	Connection for tube Ø, mm	Tightening torque Nm	Qmax input at 6 bar, l/min*	Order code
With threaded connection						
	Push-in *, Ø4 mm	G1/8	G1/4	8	500	PWB-A1898
		G1/4	G1/4	12	650	PWB-A1899
		G3/8	G3/8	30	1750	PWB-A1833
		G1/2	G1/2	35	2050	PWB-A1822

* M5 without banjo

Flow control valves with by-pass

Symbol	Thread	Number of turns	Qmax input at 6 bar, l/min	Order code
	G1/8	13	240	VQB12-Q-O-5
	G1/4	13	1320	VQB22-Q-O-5
	G1/2	13	3600	VQB42-Q-O-5

Flow control valves with by-directional control

Symbol	Thread	Number of turns	Qmax input at 6 bar, l/min	Order code
	G1/8	13	72	VQB12-OX-5 *
	G1/8	13	240	VQB12-O-5
	G1/4	13	1320	VQB22-O-5
	G1/2	13	3600	VQB42-O-5 **

* Extra fine adjustment

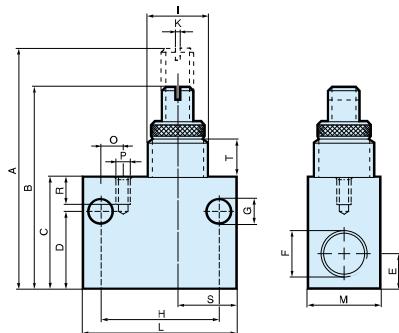
** Low operating temp -40°C

Knob and nut for panel mounting

	To suit	Order code
	VQB12	9128177212
	VQB22	9128177222
	VQB42	9128177242

Dimensions (mm)

Flow Control Valves



Order code	A	B	C	D	E	F	G	H	I
VQB12-(Q)-OX-5 49	42	22	15	6,5	G1/8	5,8	24		M12x1
VQB12-(Q)-O-5 49	42	22	15	6,5	G1/8	5,8	24		M12x1
VQB22-(Q)-O-5 64	53	30	21	8,5	G1/4	7,0	32		M16x1
VQB42-(Q)-O-5 99	85	50	36	16,5	G1/2	7,0	50		M24x1,5

Order code	K	L	M	O	P	R	S	T
VQB12-(Q)-OX-5 1,2	32	15	-	-	-	-	13,5	8,8
VQB12-(Q)-O-5 1,2	32	15	-	-	-	-	13,5	8,8
VQB22-(Q)-O-5 1,2	42	20	6,0	M4	7	16,0	10,0	
VQB42-(Q)-O-5 1,8	62	30	19,5	M4	7	20,5	15,2	

- Micrometer type adjustment
- Fine control
- Non-return and needle valves



- Screw driver adjustment
- Rugged bodies
- High flow rate
- High flow by-pass
- Wide range of sizes



Operating and additional information

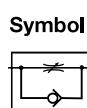
Micrometer flow control valves

Operating pressure:	0 to 17 bar
Operating temperature:	-40°C to +80°C
Body material:	Brass
Control knob:	Aluminium
Adjustment mode:	Knurled knob

Heavy duty Inline flow control valves

Operating pressure:	0 to 17 bar for air or oil
Operating temperature:	-18°C to +82°C
Body material:	Brass
Control knob:	Brass
Adjustment mode:	Screw driver adjustment

Flow Control with By-pass



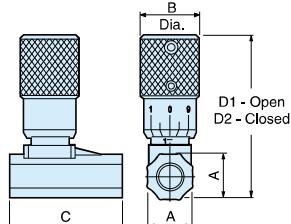
Thread	Number of turns	Qmax input at 6 bar, l/min	Weight g	Order code
G1/8	5	300	76	337A
G1/4	6	780	134	337B

Flow Control with By-directional Control



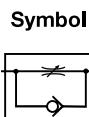
Thread	Number of turns	Qmax input at 6 bar, l/min	Weight g	Order code
G1/8	5	300	78	338A
G1/4	6	780	132	338B

Micrometer Flow Control Valves - Dimensions



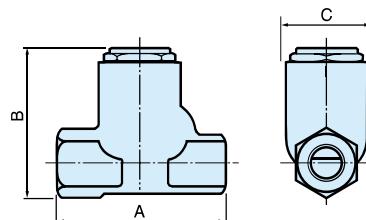
Order code	Port size	A	B	C	D1 open	D2 closed
337A	G1/8	14,5	19	37,5	51,5	46
337B	G1/4	17,5	19	37,5	58	51
338A	G1/8	14,5	19	37,5	51,5	46
338B	G1/4	17,5	19	37,5	58	51

Standard type



Thread	Number of turns	Qmax input at 6 bar, l/min	Weight g	Order code
G1/8	6	1320	114	B3250X
G1/4	5	2880	224	B3250AB
G3/8	5	6300	378	B3250BB
G1/2	5	7680	792	B3250CB
G3/4	4,5	10680	1300	B3250DB

Flow Control Valves, Standard Type



Dimensions (mm)				
Order code	Port size	A	B	C
B3250X	G1/8	44	40	21
B3250AB	G1/4	57	51	28
B3250BB	G3/8	68	64	35
* B3250CB	G1/2	79	78	41
B3250DB	G3/4	90	92	51

* Low operating temperature -40°C @ 10 bar

Quick Exhaust Valves

- Increases piston speeds, super sensitive diaphragm.
- May be used as differential shuttle valve.

**Shuttle Valves**

- Allows two separate signals to be applied to the air pilot.
- 0,6 bar differential, Viton seals as standard.

Non Return Valves

- Aluminium or polymer bodies
- Compact

Operating information**Shuttle valve ••005**

Working pressure	1,3 - 17 bar
Working temperature; Standard	-10 °C to +180 °C

Quick exhaust valve P4Q

Working pressure:	0,2 - 10 bar
Working temperature; Standard:	-10 °C to +80 °C

VB

Working pressure	Max 10 bar
Working temperature	-20 °C to +70 °C

PWA-L

Working pressure	0,2 - 10 bar
Working temperature;	-15 °C to +60 °C

For more information see www.parker.com/euro_pneumatic

Shuttle Valves

Symbol	Port size	Order code
	M5	M33005
	G1/8	B43005B
	G1/4	B53005A
	G1/4	B53005BS5 (-40°C to +80°C)

Quick Exhaust Valves P4Q Series

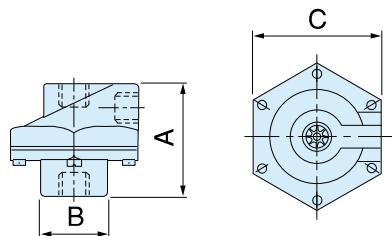
Symbol	Port size	Order code
Standard Version		
	G1/4	P4Q-BA12
	G3/8	P4Q-BA13
	G1/2	P4Q-CA14
	G3/4	P4Q-CA16
High Temperature Version (Fluorocarbon diaphragm)		
	G3/8	P4Q-BV13
	G1/2	P4Q-CV14
	G3/4	P4Q-CV16

Non Return Valves**Aluminium VB Series**

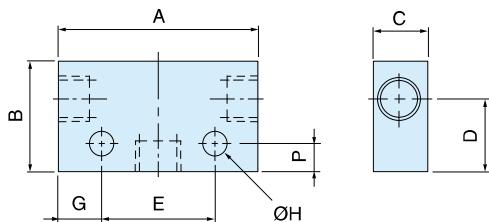
Symbol	Port size	Order code
	G1/8	VB12-Q-NQ-5
	G1/4	VB22-Q-NQ-5
	G1/2	VB42-Q-NQ-5
	G1/2	VB42-S50897 (Viton - dry assembly)

In-Line Equal Non-Return Valve

Symbol	Push-in connection Ø, mm	Flow rate 6 bar, NI/min	Order code
	4	350	7996 04 00
	6	670	7996 06 00
	8	1080	7996 08 00

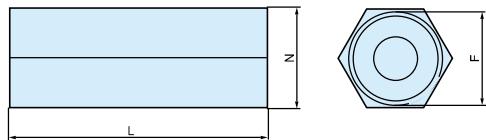
Dimensions (mm)**Quick Exhaust Valves**

Order code	Port Size	A	B	C
P4Q-B*12	G1/4	52	25	62
P4Q-B*13	G3/8	52	25	62
P4Q-B*14	G1/2	73	38	86
P4Q-B*16	G3/4	73	38	86

Shuttle Valves

Order code	Port Size	A	B	C	D	E	F	G	H
M33005	M5	27,5	24	15	16,0	15	6	6,3	3,2
B43005B	G1/8	44,0	24	15	16,0	25	6	9,5	4,5
* B53005A	G1/4	52,0	30	22	20,5	35	10	8,5	5,5

* Dimensions as **B53005BS5**

Non Return Valves - VB - Female

Order code	F	L	N
VB12-Q-NQ-5	G1/8	31	14
VB22-Q-NQ-5	G1/4	40	17
* VB42-Q-NQ-5	G1/2	59	27

* Dimensions as **VB42 / S50897**

- All plastic ultra light weight versions
- Sintered metal
- All metal versions for heavy duty applications
- Versions with push-in connections
- High noise level reduction
- Low back pressure generation

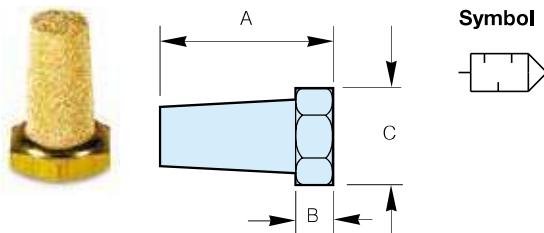


Operating and additional information

Plastic Working temperature: -10°C to +80°C
Efficiency 92%

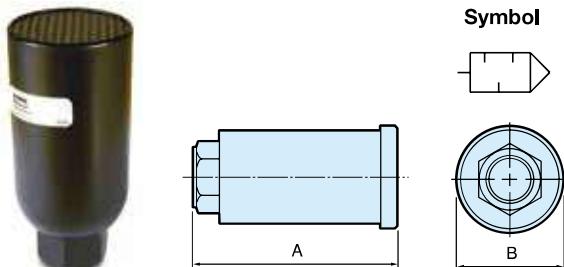
Metal Working temperature: -10°C to +74°C Working pressure up to 17 bar

Sintered Bronze Series (female)



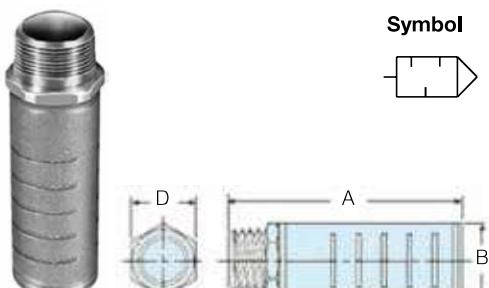
Port mm	A	Ø B	A/F C	Weight g	Order code
G1/8	15	8	13	0,060	9721900404

Heavy Duty Series



Port Female	A	Ø B	Weight g	Order code
G3/8	83	37	0,124	P6M-MA13
G1/2	105	51	0,362	P6M-MA14
G3/4	143	73	0,670	P6M-MA16
G1	143	73	0,666	P6M-MA18

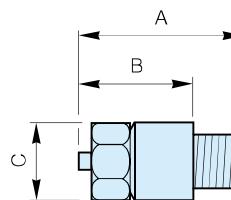
Self Cleaning, 48 Series



Port thread	A	Ø B	A/F E	Order code
R1/8	47	21	16 (5/8")	ESB12MC
R1/4	47	21	16 (5/8")	ESB25MC
R3/8	84	32	25.4 (1")	ESB37MC
R1/2	84	32	25.4 (1")	ESB50MC
R3/4	116	52	41.2 (1-5/8")	ESB75MC
R1	116	52	41.2 (1-5/8")	ESB100MC
R1-1/4	145	73,5	-	ESB125MC
R1-1/2	145	73,5	-	ESB150MC

Restrictors - Silencers

- Stainless steel or plastic versions
- Screwdriver adjustment
- Simple control of cylinder speeds
- High noise level reduction

**Sintered Stainless Steel Series**

Symbol

Port thread	Overall length	\emptyset	A/F	Order code
G1/8	33	16	13,0	9126900195
G1/4	36	20	17,0	9126900196

Reclassifier - Silencers

Metal Series, Repairable and Disposable versions

- Removes oil mist from exhaust airs
- Efficiently silences exhaust air
- Improves working conditions



Operating and additional information

Metal repairable version

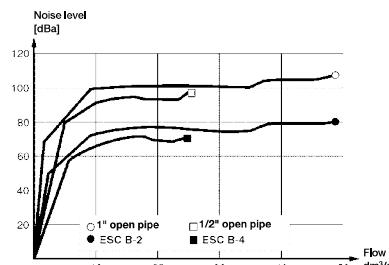
Working temperature	0 °C to 66 °C max.
Working pressure	Max 7 bar
Efficiency	Better than 99%
Maximum flow rate	G1/2, G3/4 small unit 27,8 dm ³ /s G3/4, G1 large unit 50 dm ³ /s

Disposable version

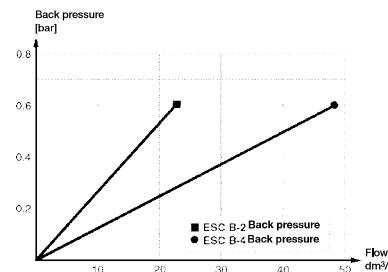
Working temperature	0° C to 52 °C max.
Working pressure	Max 7 bar
Efficiency	Better than 99%
Maximum flow rate	See graph

Disposable version

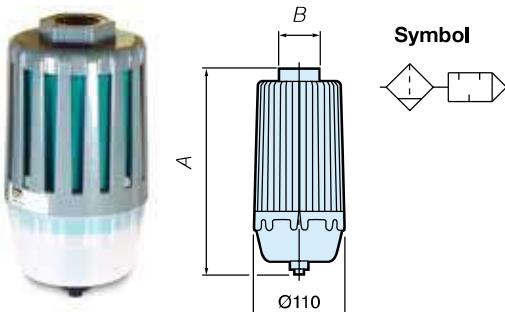
Flow vs. Noise level



Flow vs. Back pressure



Metal Repairable Series



Port thread	Type	A	Ø	A/F B	Weight kg	Order code
G1/2	Small	182	110	50	0,572	3514S
G3/4	Small	182	110	50	0,592	3516S
G3/4	Large	297	110	55	1,100	3516
G1	Large	297	110	55	1,100	3518

Replacement Element	Weight kg	Order code
Small	0,200	3514S-2
Large	0,200	3516-2

Manifold for Metal Repairable version



Number of ports	Weight kg	Order code
5	0,270	M3516-5
7	0,432	M3516-7
9	0,574	M3516-9
13	0,870	M3516-13

The manifold is available for G3/4 sizes only.

