Parker
Pneumatic

Modular FRLs

Mini Series G1/8 - G1/4
Modular Junior Series G1/8 to G3/8
Modular Maxi Series G1/4 to G3/4
Modular Series G1

Catalogue no. 2158GB-ca

Home

Mini FRLs

The Mini FRL range is designed for use in small pneumatic systems or in control cabinets where space is at a premium.

The 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 individual filters, regulators, lubricators and filter/regulators are all moulded in a quality engineering polymer, and carry integral port threads G1/8 or G1/4 using a metal insert, to give added strength when units are used individually.

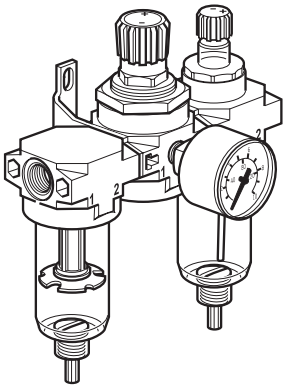
Overall the individual products are extremely light in weight, a complete FRL unit weighs only 380 grams.

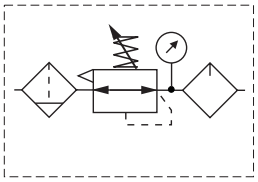
The Mini FRL system

Coloured knobs

8 bar	Black	
4 bar	Grey	
2 bar	Blue	

Popular combinations



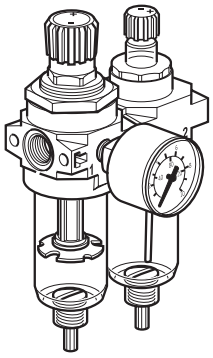


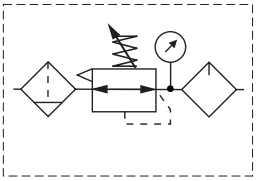
P3A-CB11BGB

Mini FRL Combinations

5 micron elements, 8 bar regulator + gauge and wall mounting brackets

Ports	Bowl - Drain		Flow @ 6 bar	
	Transparent Bowl Manual Drain	Transparent Bowl Semi -Auto Drain	l/min	dm³/sec
G1/8	**P3A-CB11BGB**	**P3A-CB11CGB**	420	7
G1/4	**P3A-CB12BGB**	**P3A-CB12CGB**	480	8





P3A-CA11BGB

Filter/Regulator - Lubricator Combinations

5 micron elements, 8 bar regulator + gauge and wall mounting brackets

Ports	Bowl - Drain		Flow @ 6 bar	
	Transparent Bowl Manual Drain	Transparent Bowl Semi -Auto Drain	l/min	dm³/sec
G1/8	**P3A-CA11BGB**	**P3A-CA11CGB**	420	7
G1/4	**P3A-CA12BGB**	**P3A-CA12CGB**	480	8

Part numbers.

P3A- **C** [ ] [ ][ ] [ ] [ ] **B**

Filter/Reg + Lub combo	**A**
FR L combo	**B**
FRL combo + Manifold after Regulator	**K**
F/R L combo + Manifold after Filter/Regulator	**H**

G1/8	**11**
G1/4	**12**

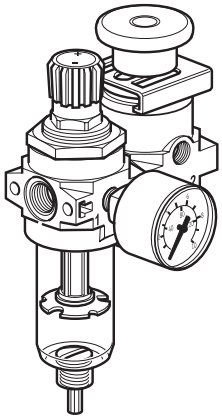
Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**

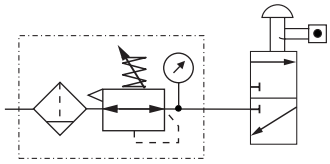
No Gauge	**N**
Gauge	**G**

Note: For materials see page 16
For dimensions see page 17

Popular combinations

Filter/Regulator and manual bistable dump valve combinations with wall mounting brackets
5 micron element, 8 bar regulator spring
Dump valve with black knob and locking clip





P3A-CN12BGB

Filter regulator manual bistable dump valve

Ports	Locking dump valve		Flow @ 6 bar	
	Transparent Bowl Manual Drain	Transparent Bowl Semi -Auto Drain	l/min	dm^3/sec
$G^1/_4$	**P3A-GN12BGB**	**P3A-GN12CGB**	650	11

Part numbers.

P3A-	G	N					B

$G^1/_4$	**12**

Transparent bowl manual drain	**B**
Transparent bowl semi-auto drain	**C**

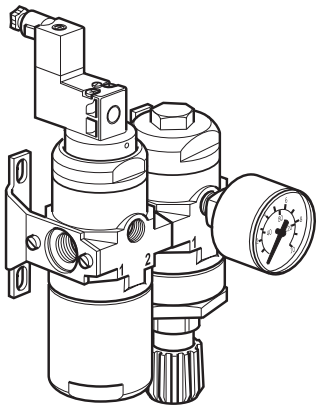
No Gauge	**N**
Gauge	**G**

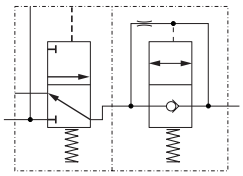
Note: For customised combinations consult Technical Sales Department.

Note: For materials see page 16
For dimensions see page 17

Popular combinations

Dump valve and soft start valve combinations with wall mounting brackets and muffler

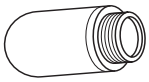




P3A-CS12QMB

Valves for other than 24 V DC to be ordered less solenoid & solenoid ordered separately.

Muffler included with each product.



Dump valve and soft start valve

Port	Solenoid operated dump valve + manual set point soft start valve		Flow @6 bar	
	24V DC	Less Solenoid	l/min	dm³/s
G¼	**P3A-CS12GMB2CC**	**P3A-CS12GMBØØØ**	1100	18.3

For solenoids see page 16

Dump valve and soft start valve

Port	Pilot operated dump valve + manual set point soft start valve	Flow @6 bar	
		l/min	dm³/s
G¼	**P3A-CS12QMB**	1100	18.3

Part numbers.

P3A- **C** **S** [ ][ ] [ ] **M** **B** [ ][ ][ ]

[ ][ ]	
G¼	**12**

[ ]	
15mm solenoids 8mm PIN centres on opposite side	**G**
Pilot port push-in	**Q**

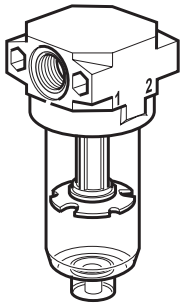
[ ][ ][ ]	
24V DC	**2CC**
Without Solenoid	**000**

Note: For customised combinations consult Technical Sales Department.

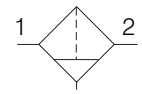
Note: For materials see page 16
For dimensions see page 17

For solenoids see page 16

Filters



Symbols



Manual drain

Semi auto drain

- High quality polyamide bowls standard.
- Unique 'elastomatic' filter elements 5 micron standard, 40 micron optional.
- Manual, Semi-auto drain or Pulse options.

Part numbers:

P3A - FA [ ] [ ] [ ] [ ] **N**

G1/8	**11**
G1/4	**12**

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**

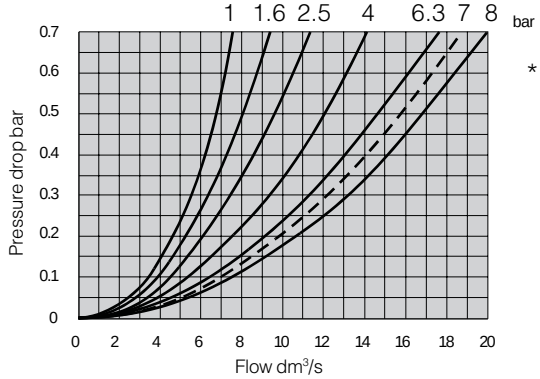
5 Micron - std	**E**
40 Micron	**G**

Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Bowl capacity	11 cm^3
High capacity bowl	33 cm^3
Flow*	
G1/8	870 l/min - 14.5 dm^3/s
G1/4	1050 l/min - 17.5 dm^3/s
Weight	75g

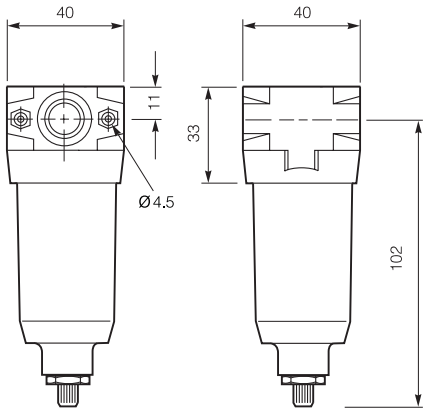
Note: For materials see page 16

Flow characteristics

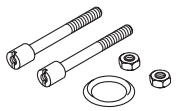


* At 6 bar inlet, 0,7 bar pressure drop.

Dimensions (mm)

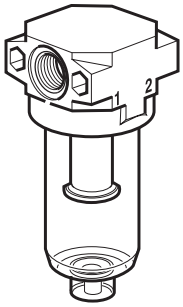


* Modular connection kit with each product



For Repair Kits and Spares see pages 62 and 63.

Coalescing Filters and Adsorbers



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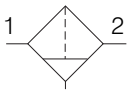
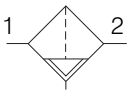


Manual drain



Semi auto drain

Part numbers:

P3A - FA [ ] [ ] [ ] [ ]

G1/8	**11**
G1/4	**12**

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**

Coalescing	**C**
Adsorber	**A**

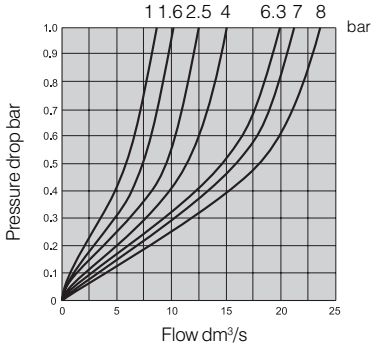
N

Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Bowl capacity	11 cm^3
High capacity bowl	33 cm^3
Max flow*	150 l/min - 2.5 dm^3/s (Adsorber)
Max flow*	150 l/min - 2.5dm^3/s (Coalescer)
Weight	75g

Note: For materials see page 16

Flow characteristics



Coalescing filters

* Maximum recommended flow at 7 bar inlet pressure and 140 mbar pressure drop with element wet.

Adsorbers

* Maximum recommended flow at 7 bar inlet pressure and 100 mbar pressure drop.

The use of a Coalescing pre-filter is essential. Adsorber filters do not remove carbon monoxide or carbon dioxide.

Features: Coalescing filters

- Maximum solid particle passed 0.3 microns.
- Maximum oil carry-over 0.02 mg/m^3
- High quality polyamide bowls standard, metal bowl option.
- Manual, Semi auto drain or Pulse options.

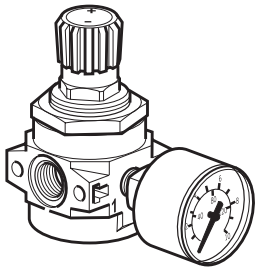
Features: Adsorbers

- Removes hydro-carbon vapours.
- Removes oil vapour carry-over.
- Activated carbon element
- For "breathable air" applications.

* Modular connection kit with each product

For Repair Kits and Spares see page 62 and 63.

Regulators



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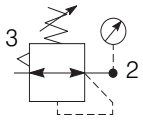
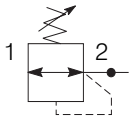


Self bleed regulator with gauge



Non bleed regulator

- 3 secondary pressure ranges available, 0.2 - 2 bar 0.2 - 4 bar, 0.2 - 8 bar.
- Balanced diaphragm design, self relieving standard, non relieving optional.
- Push to lock non-rising control knob.
- Colour coded adjustment knobs.
  8 bar Black, 4 bar Grey, 2 bar Blue.
- Tamperproof facility.

Part numbers:

P3A - RA [ ] [ ] [ ] [ ] **P**

$G^1/_8$	**11**
$G^1/_4$	**12**

Relieving	**B**
Non -relieving	**N**

0,2 - 8 bar + Gauge	**G**
0,2 - 8 bar No Gauge	**N**
0,2 - 2 bar + Gauge	**Z**
0,2 - 2 bar No Gauge	**Y**
0,2 - 4 bar + Gauge	**M**
0,2 - 4 bar No Gauge	**L**

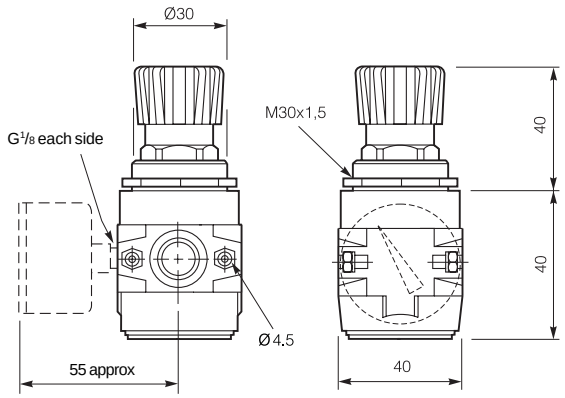
Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow	
4 - 8 bar	760 l/min - 12,7 dm³/s
2 bar	390 l/min - 6,5 dm³/s
Weight	85g

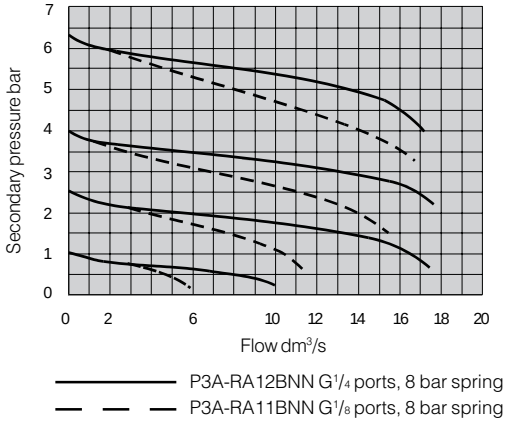
Note: For materials see page 16.
For pressure gauges see page 61.

For Repair Kits and Spares see pages 62 and 63.

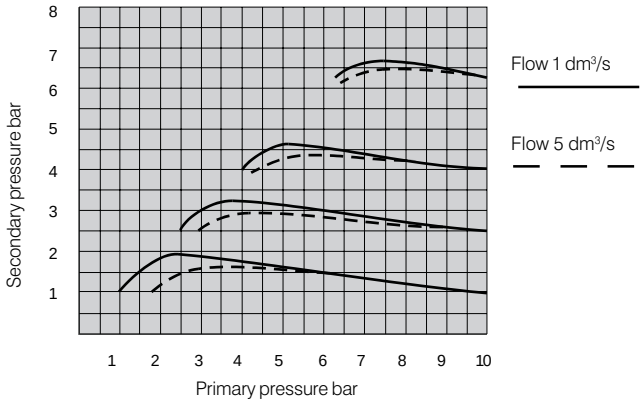
Dimensions (mm)



Flow characteristics

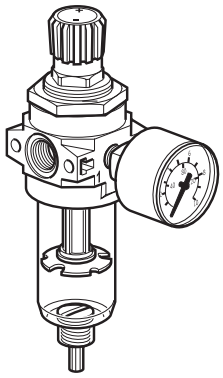


Regulation characteristics

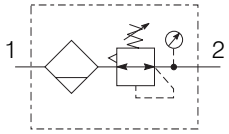


Mini FRLs

Filter regulator



Symbol



- 'Elastomatic' filter elements 5 micron standard, 40 micron optional.
- 3 secondary pressure ranges, 0-2 bar, 0-4 bar or 0-8 bar.
- Push to lock, non-rising control knob.
- Colour coded adjustment knobs.
  8 bar Black, 4 bar Grey, 2 bar Blue.
- Tamperproof facility.

Part numbers:

P3A - EA [ ] [ ] [ ] [ ] [ ] [ ] **P**

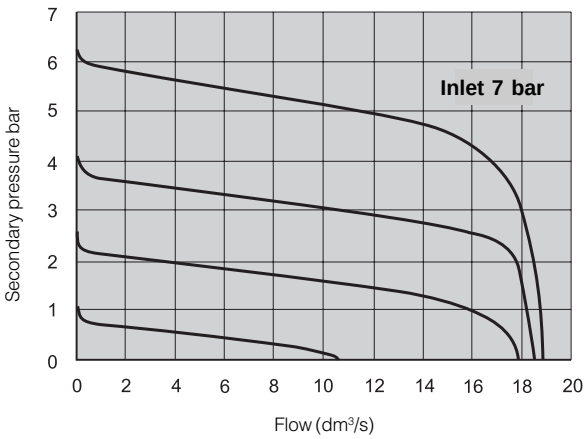
$G^1/_8$	**11**	Transparent Bowl Manual Drain	**B**	5 Micron-std	**E**	Relieving	**B**	0,2 - 8 bar + Gauge	**G**
$G^1/_4$	**12**	Transparent Bowl Semi-Auto Drain	**C**	40 Micron	**G**	Non-Relieving	**N**	0,2 - 8 bar No Gauge	**N**
								0,2 - 2 bar + Gauge	**Z**
								0,2 - 2 bar No Gauge	**Y**
								0,2 - 4 bar + Gauge	**M**
								0,2 - 4 bar No Gauge	**L**

Technical information

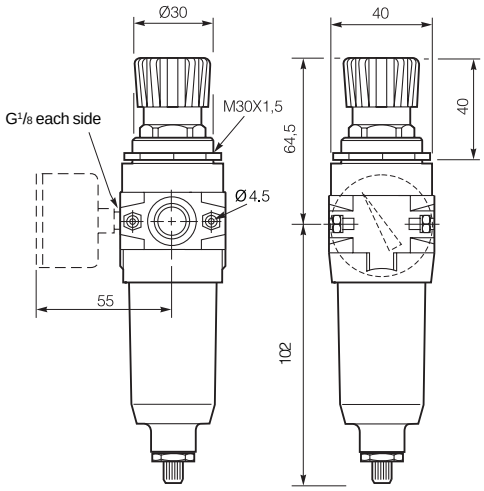
Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Bowl capacity	11 cm^3
High capacity bowl	33 cm^3
Weight	132g

Note: For materials see page 16.
For pressure gauges see page 61.

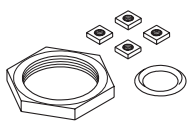
Flow characteristics



Dimensions (mm)

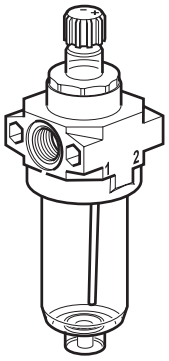


* Modular connection kit with each product

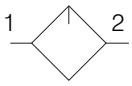


For Repair Kits and Spares see page 62 and 63.

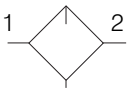
Lubricators



Symbols



Lubricator



Lubricator with drain

- High quality polyamide bowls standard.
- 360⁰ sight dome - drip control.
- Low flow oil pick-up capability.

Part numbers:

P3A - LA [ ][ ] [ ] **N** **N**

G1/8	**11**
G1/4	**12**

Transparent Bowl with Manual Drain	**B**
Transparent Bowl Without Drain	**A**
High Capacity Transparent Bowl Manual Drain	**6**
High Capacity Transparent Bowl No Drain	**7**

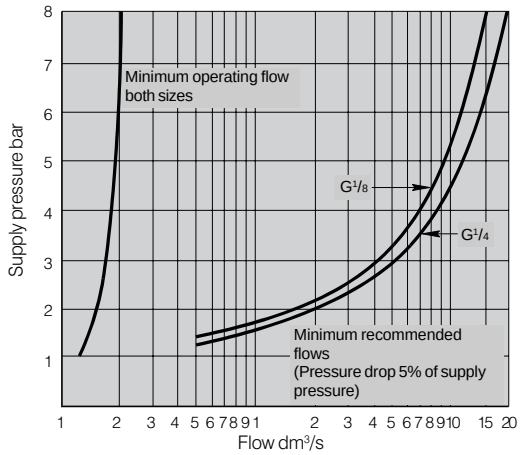
Technical information

Max. inlet pressure			10 bar max.
Temperature range			-10⁰C +50⁰C
Bowl capacity			26 cm³
High capacity bowl			48 cm³
Flow*	Pre lubricants	G1/8	780 l/min - 13 dm³/s
		G1/4	1080 l/min - 18 dm³/s

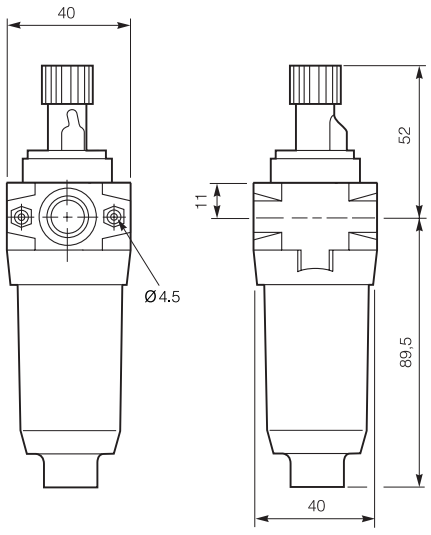
For preferred lubricants see page 63.
* At 7 bar inlet 5% pressure drop

Note: For materials see page 16.

Flow characteristics



Dimensions (mm)



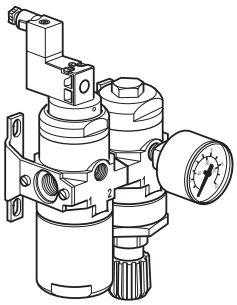
* Modular connection kit with each product

For Repair Kits and Spares see page 62 and 63.

Soft Start and Dump Valves

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

The soft start valve is an ideal method of providing a fully adjustable controlled introduction of pressure.



Soft Start Valve Operation:

The switch point is set via the control knob and is fully adjustable between 1 and 5 bar. Additionally the bleed orifice which delays the rise in pressure is supplied as standard in several diameters:-
Ø1mm, Ø1,5mm, Ø2,2mm, and Ø3mm.

These are field interchangeable by removing the top plug of the valve.

The soft start valve will, when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

In normal operation the soft start valve is assembled, in series, with an accompanying air pilot, solenoid pilot or manually actuated dump valve. This is used as an on - off switch for line pressure, and for exhausting the system.

Typical combinations

Fig. 1.

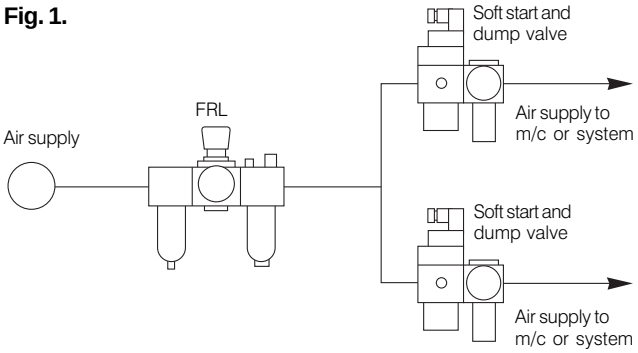


Fig.1. enables part of a system to be isolated and the air dumped to atmosphere whilst operating another part normally.

Fig. 2.

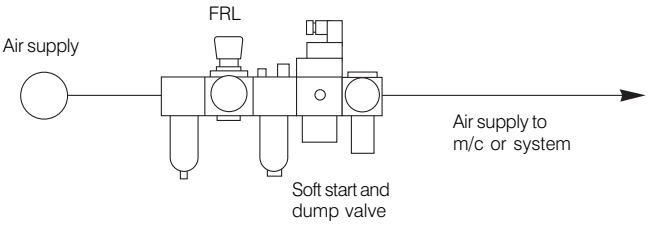
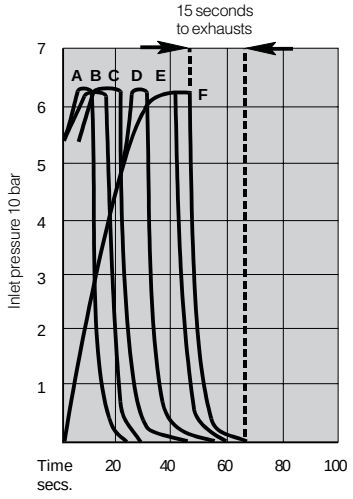


Fig. 2. shows the Soft Start and Dump valve assembled as part of the main Mini FRL combination feeding an entire system.

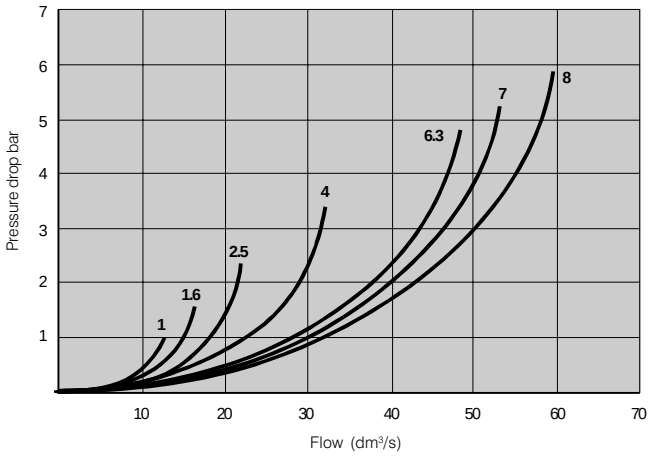
Effect of orifice on flow characteristics of pneumatic switch



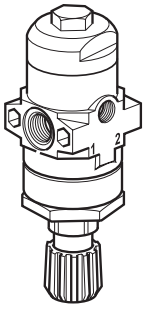
6 bar inlet
10 litre volume
1.5mm dia orifice

A zero switch point
B 1 turn
C 2 turns
D 3 turns
E 4 turns
F 5 turns

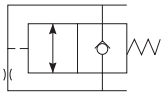
Flow characteristics for ('Soft Start' valve)



Soft Start Valves



Symbol



- Manually operated
- Controlled induction of pressure
- Fully adjustable switch point

Part numbers:

P3A - SA [ ] [ ] [ ] **0** **N**

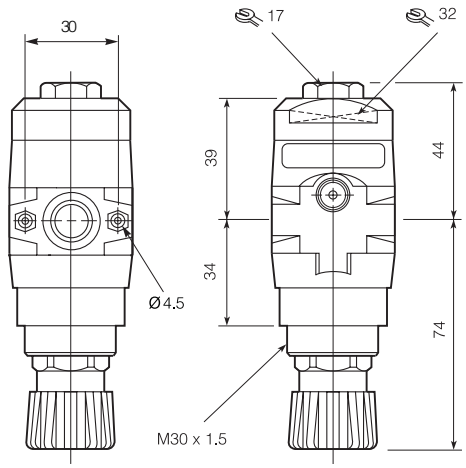
G1/8 **11**	
G1/4 **12**	

Manual adjustment	**M**
Manual + Gauge	**G**

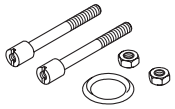
Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	1000 l/min - 16,7 dm³/s
Weight	85g

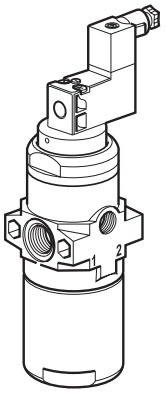
Note: For materials see page 16.
For pressure gauges see page 61.



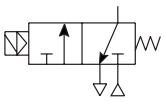
* Modular connection kit with each product



Remotely Operated Dump Valves



Symbol



- Air pilot or solenoid pilot operated dump valves
- Low Watt solenoid coils

  Valves for other than 24 V DC to be purchased less solenoid & solenoid ordered separately.

Part numbers:

P3A - DA [ ] [ ] [ ] **N** [ ]

G1/4	**12**

Pilot Monostable 4mm Push-in	**PQ**
Solenoid (15mm) Monostable	**SG**

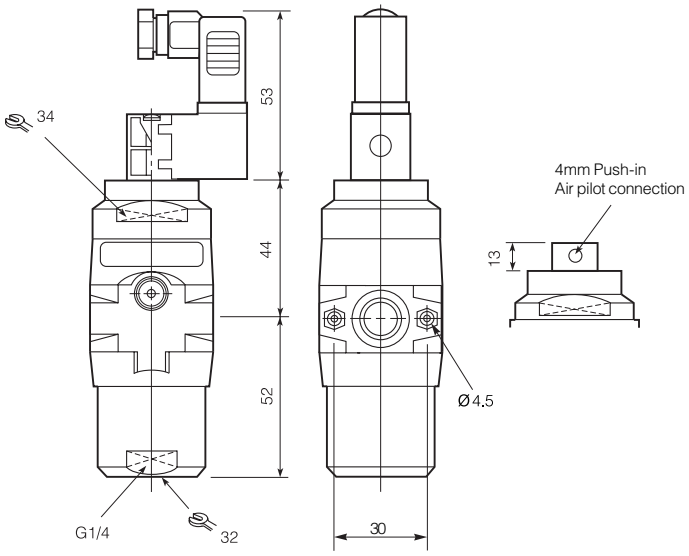
No Solenoid	
24V. D.C.	**2CN**
Less Solenoid	**ØØØ**

For alternative solenoids see page 16.

Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	
Through valve	to exhaust
1300 l/min - 22 dm³/s	1000 l/min - 17 dm³/s
Weight	85g

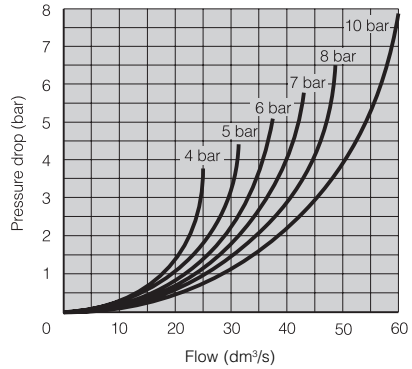
Note: For materials see page 16.



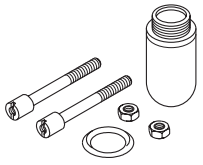
Operation

Remotely operated dump valves automatically shut off upstream pressure and exhaust the downstream pressure when the pilot pressure is released.
To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version mist be maintained.
The valve will automatically dump when the holding signal is removed.

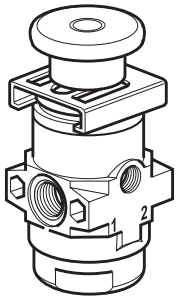
Flow characteristics:
Inlet to Secondary



* Modular connection kit with each product

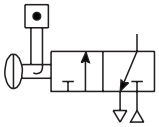


Manually Operated Dump Valves



- Shuts off upstream and dumps downstream pressure.
- Choice of red or black knobs.
- G1/4 ports.
- Ventral G1/4 exhaust port.
- Padlockable version.

Symbol



BISTABLE version
The dumping of downstream pressure is manually actuated by depressing the knob.
To reset, both effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE version . 2 exhaust dump functions
Manually, by maintaining the button thrust down during time required to dump the downstream pressure.
Automatically, when the upstream pressure falls below the set pressure threshold.
To reset, effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE dump valves are an important element in machine safety considerations. After a unexpected upstream pressure failure, e.g compressor break down), system pressure reset will be only be obtained by lifting the knob combined with having an effective upstream pressure.

Part numbers:

P3A - DA [ ] [ ] [ ] [ ]

G1/4	12

Manual Monostable black knob	M
Manual monostable red knob	N
Manual Bistable black knob	B
Manual Bistable red knob	R

Non Locking	N
Locking*	L

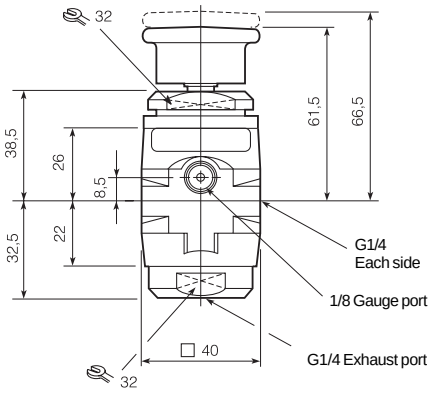
* Up to 3 padlocks

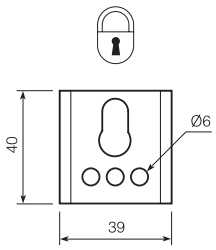
N

Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	
Through valve	to exhaust
G1/4 1800 l/min - 30 dm³/s	1920 l/min - 32 dm³/s
Weight	75g

Note: For materials see page 16.

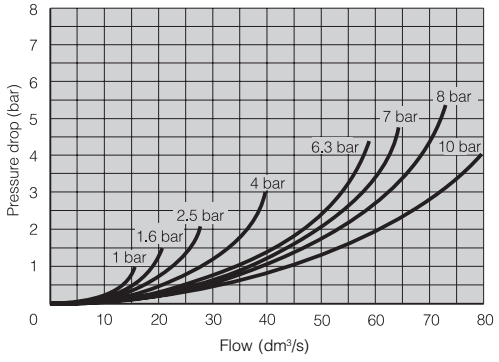




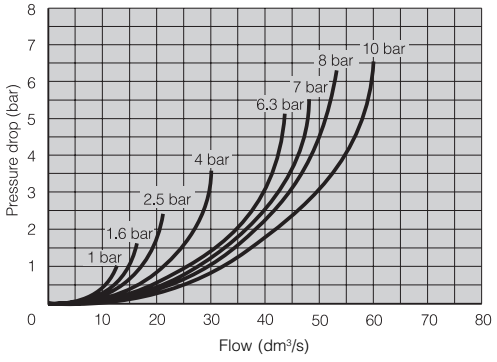
Locking clip
Order code

P3A-KA00ASN

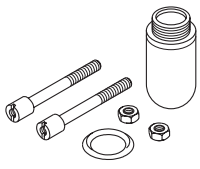
Flow characteristics:
Inlet to Secondary



Flow characteristics:
Secondary to exhaust



* Modular connection kit with each product



Materials

Filter

Body	Nylon 6 glass filled
Bowl (Transparent)	Nylon
Louvre	Acetal
Standard Element	Nylon 6
Coalescing Element	Borosilicate and felt glass fibre
Adsorber Element	Activated charcoal
Manual Drain	Acetal
Semi-Auto Drain	Acetal / Brass
Springs	Stainless Steel
Seals	Nitrile

Regulator

Body	Nylon 6 glass filled
Bonnet	Acetal
Control Knob	Acetal
Adjustable Screw	Plated Steel
Spring Rest (Upper)	Brass
Spring Rest (Lower)	Steel / Brass
Spring	Plated Steel
Diaphragm	Nitrile / Nylon
Valve Stem	Brass
Valve Guide	Acetal
Valve Seat	Nitrile
Bottom Cap	Acetal
Springs	Stainless Steel
Seals	Nitrile

Lubricator

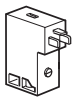
Body	Nylon 6 glass filled
Bowl (Transparent)	Nylon
Knob	Acetal
Sight Glass	Polyamide
Venturi Valve	Acetal
Transfer Tube	Nylon
Tube Retainer	Brass
Spring	Stainless Steel
Seals	Nitrile

Accessory Products

Bodies	Zinc
Housings	Aluminium
Valve Stems	Brass
Knobs	Acetal
SSV Main Spring	Plated Steel
Springs	Stainless Steel
Seals	Nitrile

Solenoids for Dump Valves (15mm solenoid)

Supplied with cable plug and non-locking flush manual override

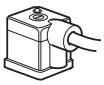


Voltage	Order code
12VDC	**P2E-KV32BN**
24VDC	**P2E-KV32CN**
12V 50Hz/60Hz	**P2E-KV34BN**
24V 50Hz	**P2E-KV31CN**
115V 50Hz/120VAC 60Hz	**P2E-KV31FN**
230V 50Hz/240VAC 60Hz	**P2E-KV31JN**

Cable plugs 15 mm (8 mm pin spacing) IP 65

Description	Order code
Large headed screw for inaccessible or recess position	
Standard to be wired universal	**P8C-C**
To be wired LED+protection 24 VDC	**P8C-C26C**

Description	Order code
With standard screw	
Standard to be wired universal	**P8C-D**
To be wired LED+protection 24 VDC	**P8C-D26C**

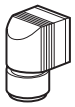


Description	Order code
With cable and standard screw	
Standard with 2 m cable	**P8L-C2**
Standard with 5 m cable	**P8L-C5**
LED+protection 24 VAC/DC, 2 m	**P8L-C226C**
LED+protection 24 VAC/DC, 5 m	**P8L-C526C**

Solenoids for Dump Valves (CNOMO solenoid)

Supplied with cable plug and non-locking override

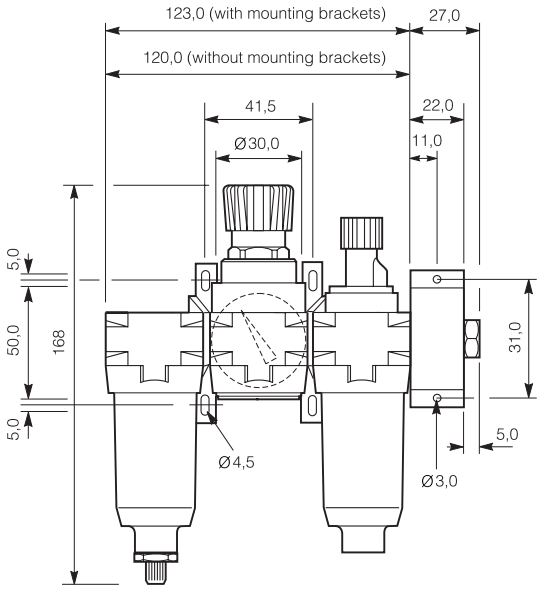
Voltage CNOMO-Solenoids	Order code
24VDC (48V 50Hz)	**P2G-PV32C1**
24V/50Hz/60Hz (11VDC)	**P2G-PV34C1**
110V/50Hz/60Hz (50VDC)	**P2G-PV34E1**
230V/50Hz/60Hz (120VDC)	**P2G-PV34J1**
12V/50Hz/60Hz (6VDC)	**P2G-PV34B1**



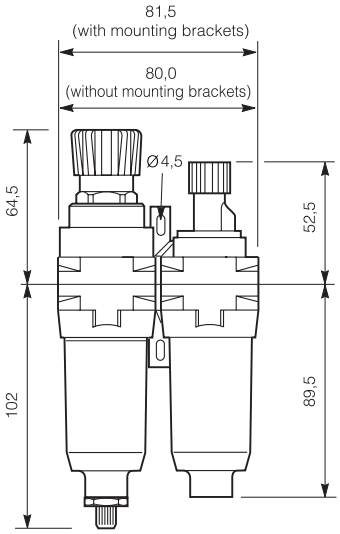
Description Cable plug, for CNOMO solenoid	Order code
24V, LED+Diode	**9125 9980-04**
24V AC/DC, LED+VDR	**9125 9980-06**
110V AC/DC, LED+VDR	**9125 9980-08**
240V AC/DC, LED+VDR	**9125 9980-10**
Black	**451B**

Combination dimensions

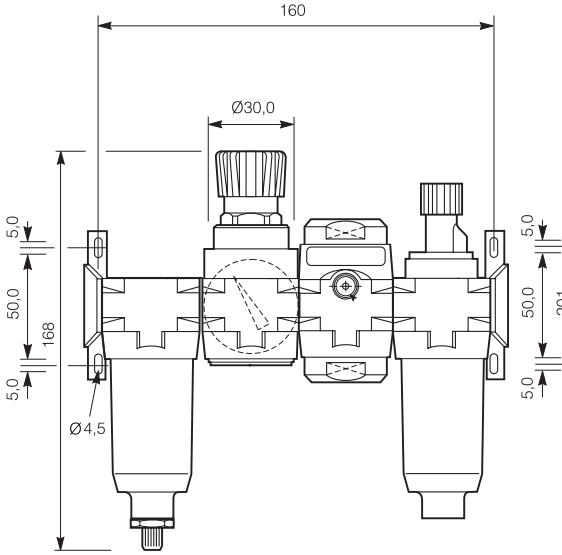
Filter, Regulator, Lubricator



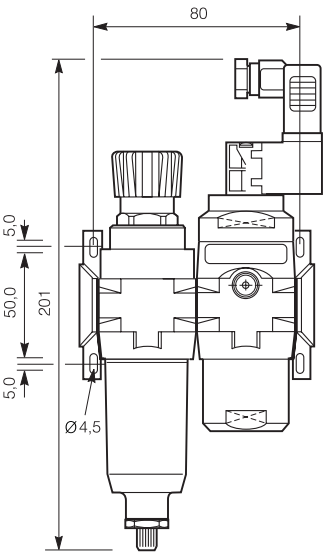
Filter/Regulator, Lubricator



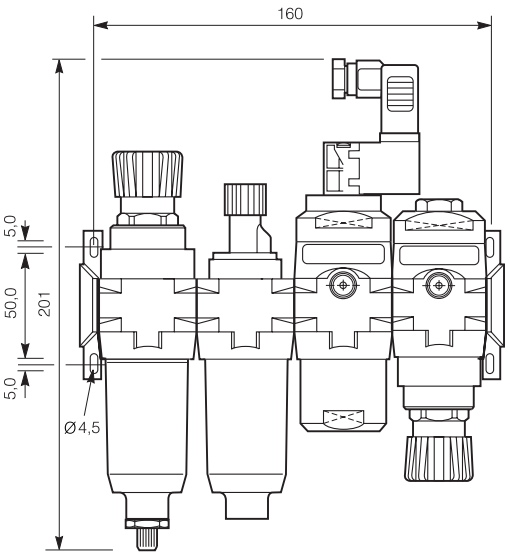
Filter, Regulator, Manifold, Lubricator.



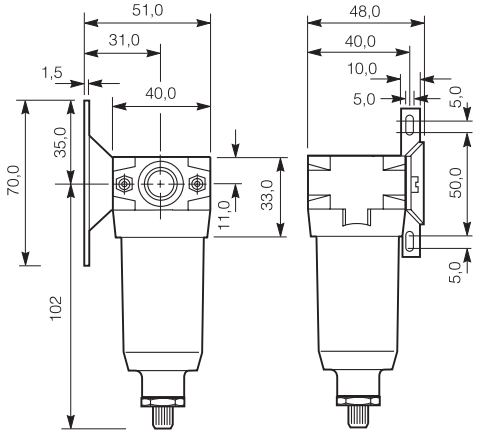
Filter/Regulator & Dump Valve



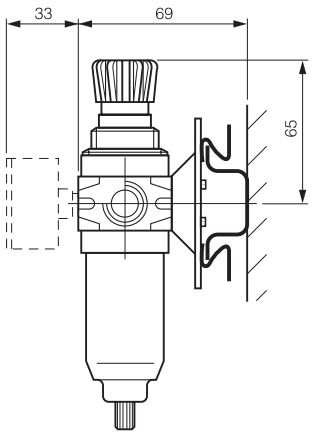
Filter/Regulator, Lubricator, Dump valve, Soft start valve



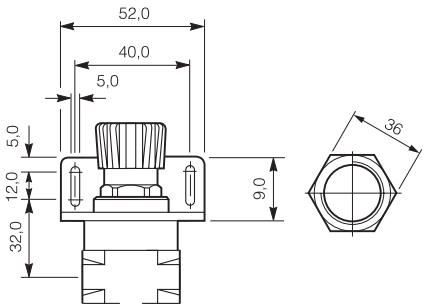
Wall mountings



DIN rail



Neck mounting



Mounting assemblies

Assembly containing a regulator or filter regulator

Assembly without regulator or filter regulator

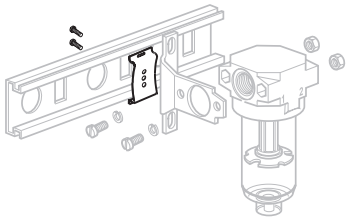
Wall brackets mounted at the ends of an assembly

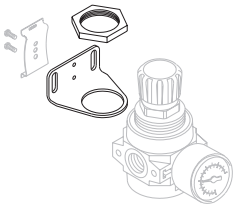
Wall brackets mounted at the ends of an assembly

Wall brackets mounted inside an assembly

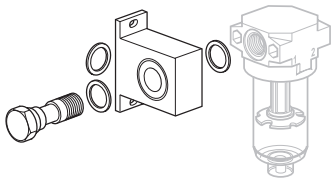
Wall brackets mounted inside an assembly

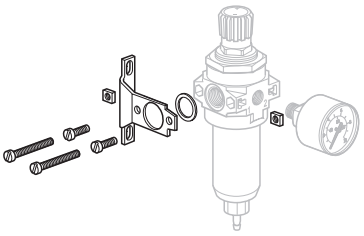
Mounting Kits

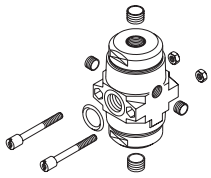
	Part no.	Mounting Style	
DIN rail Mounting kit	**P3A-KA00MKN**	DIN rail clip for wall mounting P3A-KA00CWN or P3A-KA00MRN	

	Part no.	Mounting Style	
Angle Bracket Mounting	**P3A-KA00MRN**	Regulator and Filter/Regulator bracket mounting	

	Part no.		Part no.	
Plastic panel mounting ring	**P3A-KA00MPN**	Metal panel mounting ring	**P3A-KA00MMN**	

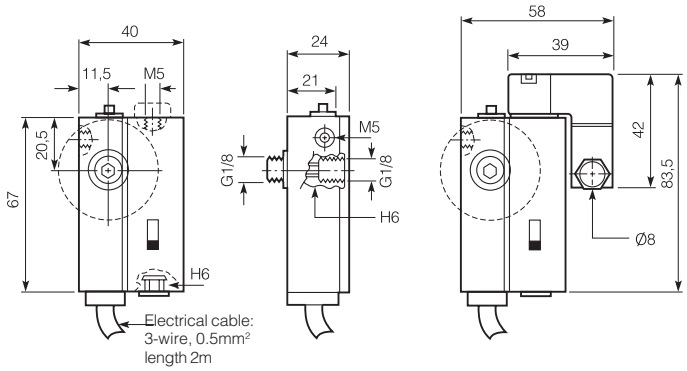
	Part no.	Mounting Style	
Rear Entry Connector	**P3A-KA12CRN**	Direct G¼ ported or may be mounted to butt directly to machine bulkhead	

	Part no.	Mounting Style	
Wall Mounting kit	**P3A-KA00CWN**	Basic kit for wall mounting individual Regulator or Filter/Regulator units	

	Part no.	Mounting Style	
Modular Manifold Block	**P3A - MA1V**	Provides 5 outlets May be connected in series	

	Part no.	Mounting Style	
Regulator Tamperproof Kit	**P3A - KA00ATN**	Prevents unauthorised adjustment	 **x5 per kit**

Adjustable Reset Pressure Switches



The Adjustable Reset Pressure Switch is designed to provide a safeguard for pneumatic systems or machines, which require a minimum operating pressure to operate effectively. When the correct pressure is present the switch provides a constant output signal which should be used to operate a control valve or device to enable the system to perform its normal function. If the operating pressure falls below the set level, the constant output signal is cancelled, allowing the control valve or device to stop the system in a safe manner.

Once the pressure rises above the preset threshold, unlike a conventional pressure switch, the Adjustable Reset Pressure Switch must be reset before it can once again transmit the output signal authorising operation. The reset signal may be manual, pneumatic or electrical.
Versions are available to provide either pneumatic or electrical output signals or both.

Pneumatic characteristics

Pressure range	:	1,5 to 8 bar max
Temperature range	:	-10⁰ to +55⁰C
Adjustment range	:	1,5 to 6 bar
Precision	:	±0,2 bar

Electrical characteristics

Electrical output	:	On/Off relay
5A / 250V A.C.		
5W / 48V D.C.		
Electrical reset = 1W		

Part nos. Switches

Part no.	Description
P3E-KA11SAN	Pneumatic output, manual reset.
P3E-KA11SBN	Pneumatic output, reset.
P3E-KA11SCN	Electrical and pneumatic outputs, manual resets.
P3E-KA11SDN	Electrical and pneumatic outputs, pneumatic reset.
P3E-KA11SEN	Electrical and pneumatic outputs, electrical reset

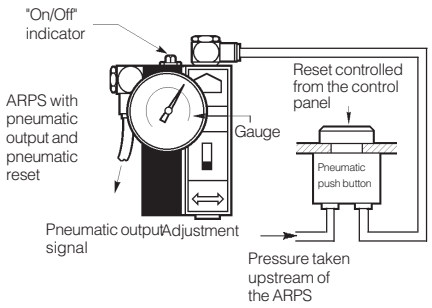
Note: Micro-solenoid not included.
Micro-solenoid valve must be ordered separately.

Micro-Solenoid Valve (Non-locking override) for pressure switch

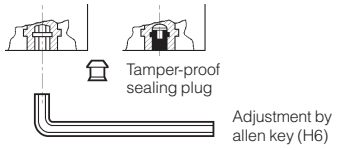
Part no.	Description
P2E-LV32B1	12V. D.C.
P2E-LV32C1	24V. D.C.
P2E-LV32D1	48V. D.C.
P2E-LV34B1	12V. 50/60Hz
P2E-LV31C1	24V. 50Hz
P2E-LV33C1	24V. 60Hz
P2E-LV34D1	48 V. 50/60Hz
P2E-LV31F1	115V. 50Hz / 120V. 60Hz
P2E-LV31J1	230V. 50Hz / 240V. 60Hz

See cable plugs Page 16

Pneumatic remote controlled reset

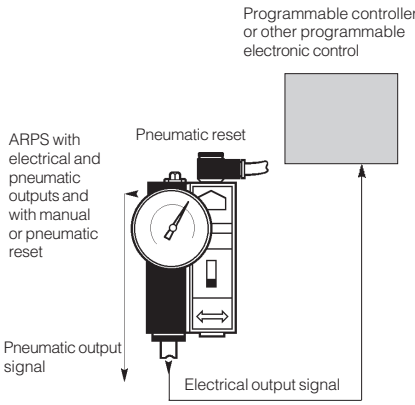


Adjusting the cut-off pressure

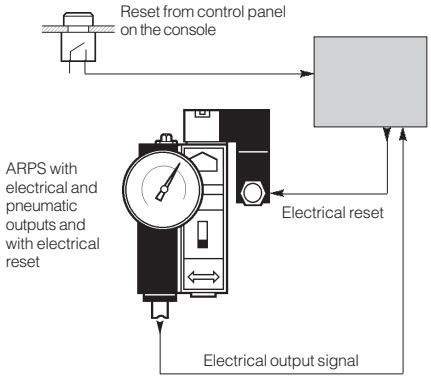


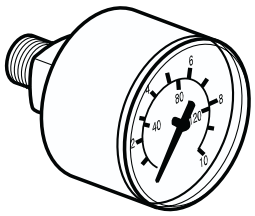
On all ARPS, the tripping pressure is adjusted by an allen key. Tamper proof sealing plug prevents unauthorised adjustment.

Direct pressure return



Pressure return through programmable control





- Wide range of pressure gauges
- Rear entry and bottom entry options
- Back pressure gauge for reclassifier-silencers
- Round or square panel mounted gauges
- Integrated thread sealing ring

Pressure gauges

Symbol	Description	Pressure range, bar	Port size	Dial mm	Weight Kg	Order code
	Rear entry	0-2,	G1/8	40	0,062	**P3D-KAB1AYN**
		0-4	G1/8	40	0,062	**P3D-KAB1ALN**
		0-10	G1/8	40	0,062	**P3D-KAB1ANN**
		0-20	G1/8	40	0,062	**P3D-KAB1AHN**
	Rear Entry	0-4	G1/8	50	0,068	**P6G-ERB1040**
		0-11	G1/8	50	0,068	**P6G-ERB1110**
		0-14	G1/8	50	0,068	**P6G-ERB1140**
	Rear entry	0-4	G1/4	50	0,074	**P6G-ERB2040**
		0-14	G1/4	50	0,074	**P6G-ERB2140**
		0-20	G1/4	50	0,074	**P6G-ERB2200**
	Bottom entry	0-11	G1/8	50	0,065	**P6G-EBB1110**
	Panel Mounted - Rear Entry	0-14	G1/8	50	0,066	**P6G-EPA1140**
		0-11	G1/8	63	0,080	**P6G-FPA1V10**
		0-10	G1/4	85	0,180	**P6G-HPA1100**
	Square - Panel Mounted - Rear Entry	0-10	G1/8	50x50	0,100	**P6G-RPA1100**
		0-4	G1/8	75x75	0,200	**P6G-TPA1040**
		0-10	G1/8	75x75	0,190	**P6G-TPA1100**
	Rear Entry - BackPressure (Reclassifiers)	0-2	G1/8	40	0,062	**P6G-DEB1020**

Panel mounting gauges

Panel mounting gauges have a threaded body and are supplied complete with a plastic mounting collar.

Filter Spare Kits Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Drain Kits				
Manual drain kit	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**
Semi-auto drain kit	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**
Auto drain kit			**P3E-KA00DDN**	**P3E-KA00DDN**
Bowl Kits **Poly bowl**				
Poly bowl with manual drain	**P3A-KA00BBA**	**P3D-KA00BBA**	**P3E-KA00BBA**	
Poly bowl with semi-auto drain	**P3A-KA00BCA**	**P3D-KA00BCA**	**P3E-KA00BCA**	
Poly bowl with auto drain			**P3E-KA00BDA**	
Metal bowl				
Metal bowl with manual drain	**P3A-KA00BPA**	**P3D-KA00BKA**	**P3E-KA00BKA**	
Metal bowl with semi-auto drain	**P3A-KA00BQA**	**P3D-KA00BLA**	**P3E-KA00BLA**	
Metal bowl with auto drain			**P3E-KA00BMA**	
Compact metal bowl with manual drain			**P3E-KA00BTA**	
Compact metal bowl with semi-auto drain			**P3E-KA00BVA**	
Compact metal bowl with auto drain			**P3E-KA00BWA**	
Filter Element Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EEN**	**P3E-KA00EEN**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ERN**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EGN**	**P3E-KA00EGN**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00ESN**	
Coalescing element	**P3A-KA00ECN**	**P3D-KA00ECN**	**P3E-KA00ECN**	**P3NKA00ESC**
Coalescing element (compact bowl)			**P3E-KA00EPN**	
Adsorber element	**P3A-KA00EAN**	**P3D-KA00EAN**	**P3E-KA00EAN**	**P3NKA00ESA**
Adsorber element (compact bowl)			**P3E-KA00ENN**	
Seal Kits				
Poly bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RZN**	
Metal bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RWN**	
Connector O ring (10 off)	**P3A-KA00CYN**	**P3D-KA00CYN**	**P3E-KA00CYN**	
Regulator Spare Kits				
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00RRN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RNN**	**P3NKA00RN**
Metal panel mounting ring	**P3A-KA00MMN**	**P3A-KA00MMN**	**P3E-KA00MMN**	
Plastic panel mounting ring (5 off)	**P3A-KA00MPN**	**P3A-KA00MPN**		
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	

Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Filter/Regulator Spare Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EFA**	**P3E-KA00EFA**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ETA**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EHA**	**P3E-KA00EHA**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00EVA**	
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00REN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RGN**	**P3NKA00RN**
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	
For Drain Kits - see Filters on page 62				
For Bowl Kits - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				
Lubricator Spare Kits				
Plastic bowl without drain	**P3A-KA00BAA**	**P3D-KA00BAA**	**P3E-KA00BAA**	
For Manual Drain Kits - see Filters on page 62				
For Bowl Kits with Manual Drain - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				

Lubrication of airlines

Satisfactory operation of airline equipment and effective lubrication depends upon the proper selection of lubrication oil. Oils having a viscosity below ISO3448 Grade 10 to 22 will satisfy most high-speed pneumatic tools and other light duty requirements.

Heavy duty tools and pneumatic valves and cylinders will normally require oils in the viscosity ISO3448 Grade 32 to 68.

Only Paraffinic based oils can be used and the following recommendations are given as a general guide to types of oil that are suitable for use with Parker airline equipment.

	High speed tools and systems		Air Cylinders and valves	
Oil Company	**ISO Grade**	**Grade**	**ISO Grade**	**Grade**
Century Oils	Century P - 198	15	P.W.L.A	32
Alexander Duckham	Zurcon 2	15	Zurcon 4 32	
Gulf	Harmony 38AW	15	Harmony 43AW	32
Shell (UK) Oil	Tellus 22	22	Tellus 37	37
Burmah Castrol	Hyspin AWS15	15	Hyspin AWS32	32
Edgar Vaughan	KSO 5L	10	Hydrodrive HP100	32
Esso Petroleum	NUTO 1115	15	NUTO H32	32
B.P.	HLP 22	22	HLP 32	32
Mobile Oil Company	Velocite No.6	10	DTE Oil - Light	32
Mobile			VPI-A	32
Silkolene	Silkair GP22	22	Derwent 32	32
Silkolene	Dove 15	15		

Most Parker Pneumatic valves and cylinders are designed for use in non-lube operation. However airline lubrication will increase the service life.

Note! If oil lubrication is used, it must be maintained for the service life of the product.

Some specialised lubricants, particular synthetic reclaimed oils and low temperature additives, may contain compounds which are incompatible with certain materials, internal 'O' rings and seals. They may also attack plastic piping or the transparent bowls of the airline lubricator. Attention is drawn to BS6005 (Specification for moulded transparent polycarbonate bowls used in compressed air filters and lubricators).

Do not use oils with additives, compounds oils containing solvents, graphite, detergents or synthetic oils.

Modular Junior FRLs

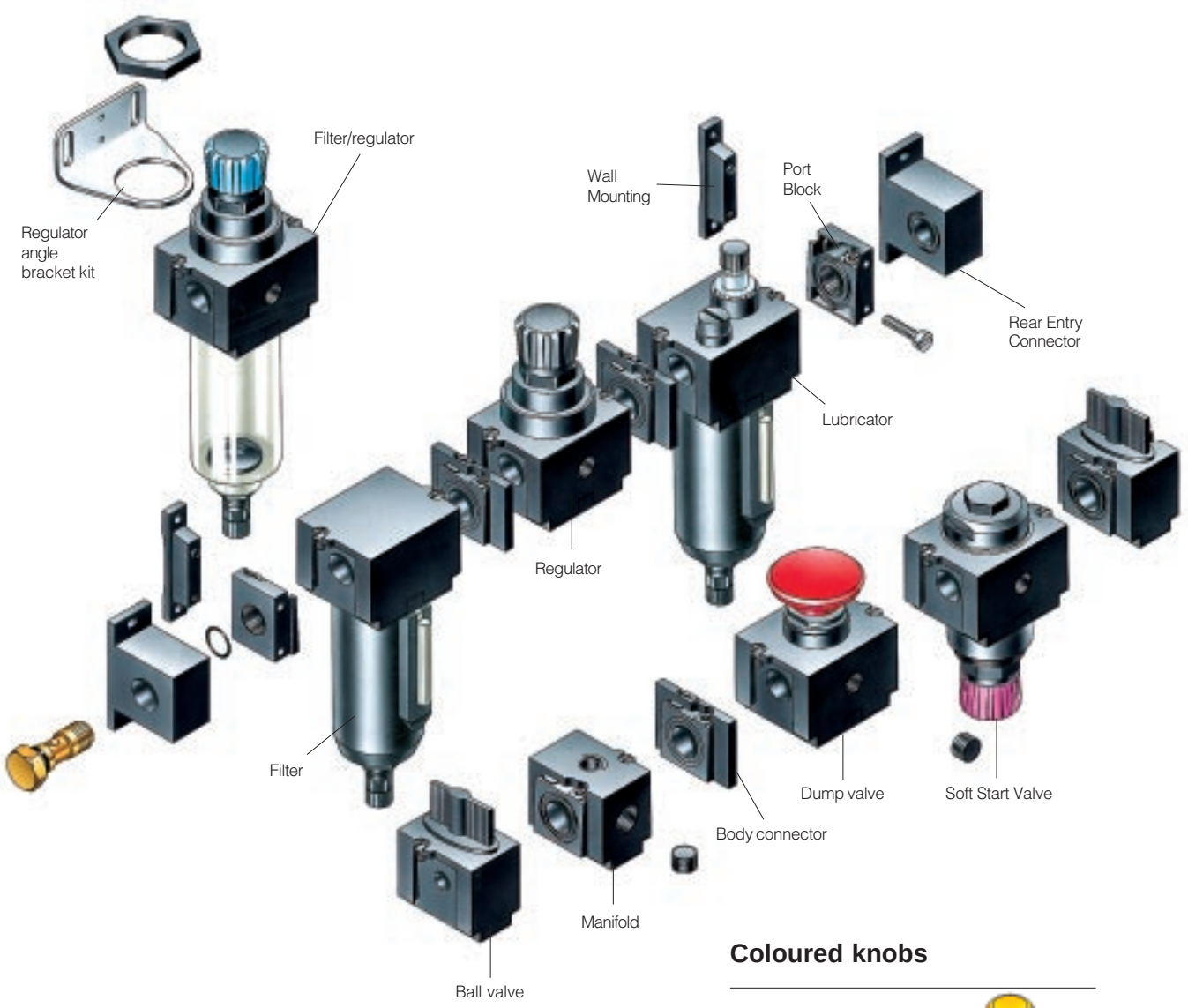
The System

The Modular 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 system comprises standard units with a common body size, body connectors and separate port blocks with a choice of port thread. This provides the designer with a truly modular system which can be adapted and expanded to suit the future needs of the application.

The system also allows units to be removed from the air line without disturbing the fixed pipe connections greatly simplifying maintenance.

The Modular system comprises Filters, Coalescing Filters, Adsorbers, Regulators, Combined Filter - Regulators and air line Lubricators together with a wide range of accessory products including Soft Start Valves, Dump Valves, Manifolds and Rear Entry Connectors.



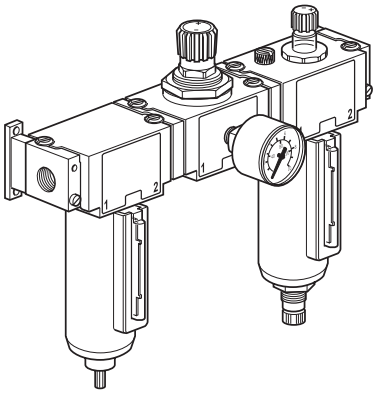
Coloured knobs

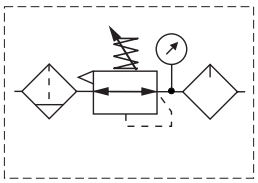
16 bar	Orange	
8 bar	Black	
4 bar	Grey	
2 bar	Blue	

Popular combinations

1/4" FRL Combinations

5 micron elements, 8 bar regulator + gauge and wall mounting brackets





P3D-CB12BGB

Ports	Bowl - Drain				Flow @ 6 bar	
	Transparent Bowl Manual Drain	Transparent Bowl Semi -Auto Drain	Metal Bowl Manual Drain	Metal Bowl Semi-Auto Drain	l/min	dm^3/s
G1/4	**P3D-CB12BGB**	**P3D-CB12CGB**	**P3D-CB12KGB**	**P3D-CB12LGB**	1200	20
G3/8	**P3D-CB13BGB**	**P3D-CB13CGB**	**P3D-CB13KGB**	**P3D-CB13LGB**	1200	20

Options:

Part no. **P3D-** ☐ ☐ ☐☐ ☐ ☐ **B**

Options:

Upstream Ball Valve as first unit	**A**
Downstream Ball Valve as last unit	**B**
Combination without Ball Valve	**C**

F/R+L combination	**A**
F+R+L combination	**B**
F/R L Combination + G1/4 ported body connector after Filter/Regulator	**J**
F/R L Combination + Manifold after Filter/Regulator	**H**
FRL combination + Manifold after Regulator	**K**
FRL combination + G1/4 ported body connector after Regulator	**L**

G1/4	**12**
G3/8	**13**

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**
Metal Bowl Manual Drain	**K**
Metal Bowl Semi Auto Drain	**L**

No Gauge	**N**
With Gauge	**G**

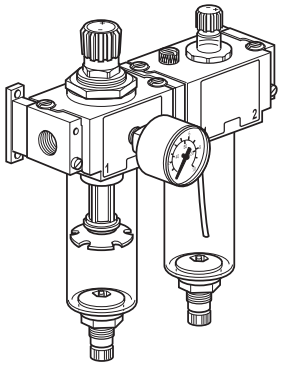
Note: For customised combinations consult Technical Sales Department.

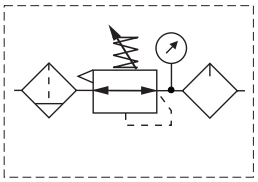
Modular Junior FRLs

Popular combinations

Filter/Regulator - Lubricator Combinations

5 micron elements, 8 bar regulator + gauge and wall mounting brackets





P3D-CA12BGB

Ports	Bowl - Drain				Flow @ 6 bar	
	Transparent Bowl Manual Drain	Transparent Bowl Semi -Auto Drain	Metal Bowl Manual Drain	Metal Bowl Semi-Auto Drain	l/min	dm^3/s
$G^1/_4$	**P3D-CA12BGB**	**P3D-CA12CGB**	**P3D-CA12KGB**	**P3D-CA12LGB**	1300	21.7
$G^3/_8$	**P3D-CA13BGB**	**P3D-CA13CGB**	**P3D-CA13KGB**	**P3D-CA13LGB**	1300	21.7

Options:

Part no. **P3D-** ☐ ☐ ☐☐ ☐ ☐ **B**

Options:

Upstream Ball Valve as first unit	**A**
Downstream Ball Valve as last unit	**B**
Combination without Ball Valve	**C**

F/R+L combination	**A**
F+R+L combination	**B**
F/R L Combination + $G^1/_4$ ported body connector after Filter/Regulator	**J**
F/R L Combination + Manifold after Filter/Regulator	**H**
FRL combination + Manifold after Regulator	**K**
FRL combination + $G^1/_4$ ported body connector after Regulator	**L**

$G^1/_4$	**12**
$G^3/_8$	**13**

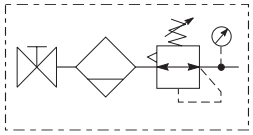
Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**
Metal Bowl Manual Drain	**K**
Metal Bowl Semi Auto Drain	**L**

No Gauge	**N**
With Gauge	**G**

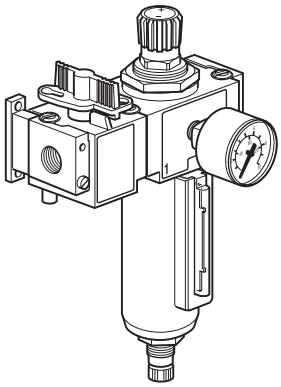
Note: For customised combinations consult Technical Sales Department.

Popular combinations

Filter/Regulator and Ball valve combinations with wall mounting brackets and port connectors, 5µ element, 8 bar secondary pressure



P3D-AN12KGB



Ports	Pressure	Metal Bowl		Transparent bowl		Flow @ 6 bar	
	max, bar	Manual	Semi-Auto	Manual	Semi-Auto	l/min	dm^3/s
G1/4	17	**P3D-AN12KGB**	**P3D-AN12LGB**			1100	18.3
G3/8	17	**P3D-AN13KGB**	**P3D-AN13LGB**			1380	23
G1/4	10			**P3D-AN12BGB**	**P3D-AN12CGB**	1100	18.3
G3/8	10			**P3D-AN13BGB**	**P3D-AN13CGB**	1380	23

Options:

P	3	D	-		N					B

	Ball valve
A	Upstream Ball Valve as first unit
B	Downstream Ball Valve as last unit

	Thread
12	G1/4
13	G3/8

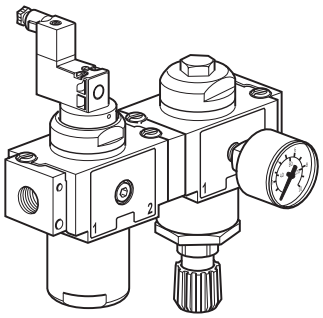
	Bowl / drain
B	Transparent Bowl Manual Drain
C	Transparent Bowl Semi-Auto Drain
K	Metal Bowl Manual Drain
L	Metal Bowl Semi Auto Drain

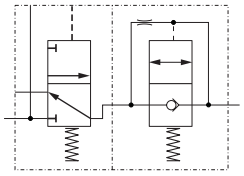
	Gauge
N	Without gauge
G	With gauge

Note:
For customised combinations consult Technical Sales Department.

Popular combinations

Dump valve and soft start valve combinations with wall mounting brackets





P3D-CS12QMS

Ports	Solenoid operated dump valve + manual set point soft start valve		Flow @ 6 bar	
	24V DC	Valve without Solenoid	l/min	dm^3/s
$G^1/_4$	**P3D-CS12GMB2CC**	**P3D-CS12GMB000**	2500	41.7
$G^3/_8$	**P3D-CS13GMB2CC**	**P3D-CS13GMB000**	2500	41.7

Valves other than 24 V DC to be purchased less solenoid and solenoid ordered separately.

Ports	Pilot operated dump valve + manual set point soft start valve	l/min	dm^3/s
$G^1/_4$	**P3D-CS12QMB**	2500	41.7
$G^3/_8$	**P3D-CS13QMB**	2500	41.7

Options:

Part no. **P3D-** **C** **S** □□ □ **M** **B** □□□

Options:

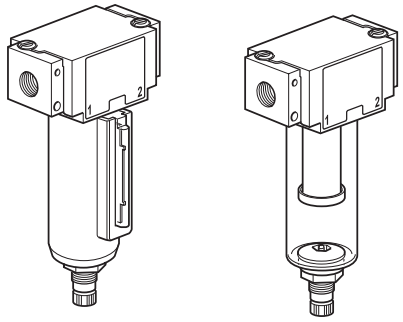
$G^1/_4$	**12**
$G^3/_8$	**13**

Solenoid operated dump valve	**G**
Air pilot operated dump valve	**Q**

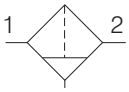
24V DC	**2CC**
Valve without solenoid	**000**

Note: For customised combinations consult Technical Sales Department.

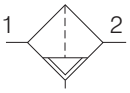
Filters



Symbols



Manual drain



Semi auto drain

- Choice of transparent nylon or metal bowls with convex integral sight glasses.
- Quick release bowl mechanism - added safety, bowl cannot be removed whilst pressurised.
- Sight glass can be located in 90^0 increments.
- Elastomatic filter elements shrug off larger dirt particles as flow varies.
- 5 micron elements as standard, option 40 micron.
- No tools required for dismantling or cleaning element - routine servicing without removing from line.

Options:

P3D - FA [ ][ ] [ ] [ ] **N**

$G^1/_4$	**12**
$G^3/_8$	**13**
Without Port blocks	**00**

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi Auto Drain	**C**
Metal Bowl Manual Drain	**K**
Metal Bowl Semi Auto Drain	**L**

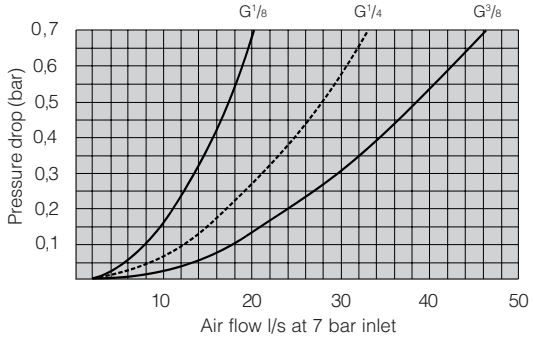
5 Micron Element Std	**E**
40 Micron Element	**G**

Note: For customised combinations consult Technical Sales Department.

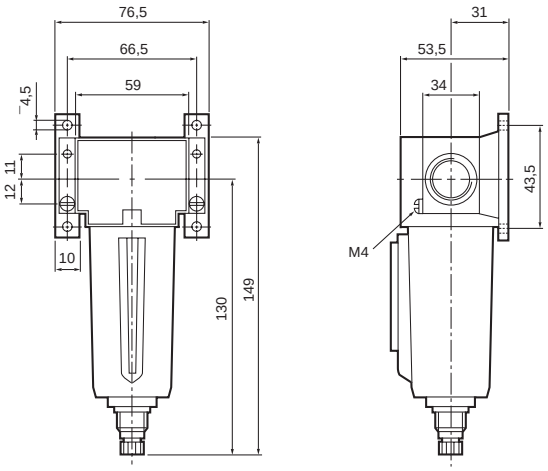
Technical information

Filter element grade:	Standard 5 micron
	Option 40 micron
Flow @ 7 bar	1200 l/min - $G^1/_8$ 20 dm^3/s
Inlet 0.7 bar	1980 l/min - $G^1/_4$ 33 dm^3/s
pressure drop	2760 l/min - $G^3/_8$ 46 dm^3/s
Pressure range:	10 bar max Nylon bowl
	17 bar max Metal bowl
Temperature range:	-10^oC to $+50^oC$ Nylon bowl
	-10^oC to $+75^oC$ Metal bowl
Weight (g)	276g Nylon bowl
without port blocks	450g Metal bowl

Flow characteristics



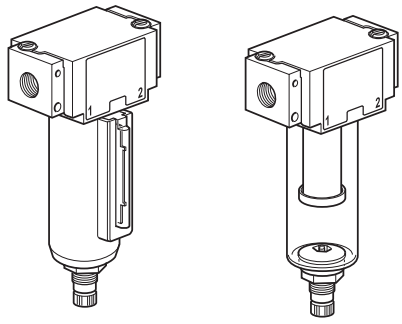
Dimensions (mm)



For accessories and port blocks see page 37.

For Repair Kits and Spares see page 62 and 63.

Coalescing filters and Adsorbers



Coalescing filters

- Removes oil and water aerosols.
- Maximum oil carry over 0.02 mg/m^3
- All units interchangeable and removable without disturbing pipework, by simply unscrewing retaining screws.
- Captive retaining screws automatically realign and reseal units when refitting.

Adsorbers

- Removes hydro-carbon vapours.
- Removes oil vapour carry-over.
- Activated carbon element.
- For breathable air applications.
- Maximum oil carry over 0.005 mg/m^3

Options:

P3D - FA [ ] [ ] [ ] [ ] **N**

G1/4	**12**
G3/8	**13**
Without Port blocks	**00**

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi Auto Drain	**C**
Metal Bowl Manual Drain	**K**
Metal Bowl Semi Auto Drain	**L**

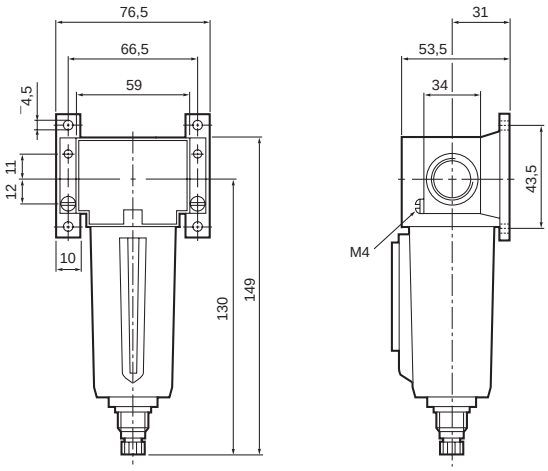
Coalescing filter	**C**
Adsorber filter	**A**

Note: For customised combinations consult Technical Sales Department.

Technical information

Temperature range:	0°C to +50°C max.
Pressure range:	10 bar max Nylon bowl
	17 bar max Metal bowl
Weight (g) without port blocks	276g Transparent bowl
	450g Metal bowl
Maximum recommended flow	240 l/min - 4 dm^3/s at 7 bar inlet
Efficiency	99.97% D.O.P. USA Federal standard
Maximum particle passed	0,3 microns

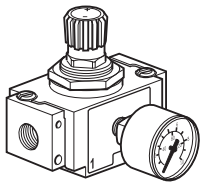
Dimensions (mm)

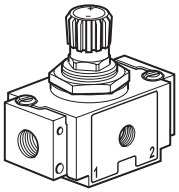


For accessories and port blocks see page 37.

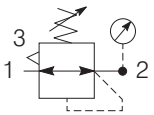
For Repair Kits and Spares see page 62 and 63.

Regulators

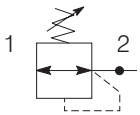




Symbols



Self bleed regulator with gauge



Non bleed regulator

- One balanced, self relieving, diagram operated unit for all flows and combinations - optional non-relieving unit available.
- Simple push to lock non-rising adjustment knob with low operating torque; easily tamperproofed.
- Panel mounting ring available.
- Excess secondary pressure relieves at low differential.
- Four secondary pressure ranges available, with colour coded adjustment knobs.
  16 bar Orange, 8 bar Black, 4 bar Grey, 2 bar Blue

Options:

P3D - RA [ ][ ] [ ] [ ] **P**

G1/4	**12**
G1/4	**12**
G3/8	**13**
Without Port blocks	**00**

Relieving	**B**
Non-relieving	**N**

0,4 - 8 bar + Gauge	**G**
0,4 - 8 bar No Gauge	**N**
0,2 - 2 bar + Gauge	**Z**
0,2 - 2 bar No Gauge	**Y**
0,2 - 4 bar + Gauge	**M**
0,2 - 4 bar No Gauge	**L**
0,4 - 16 bar + Gauge	**J**
0,4 - 16 bar No Gauge	**H**

Note: For customised combinations consult Technical Sales Department.

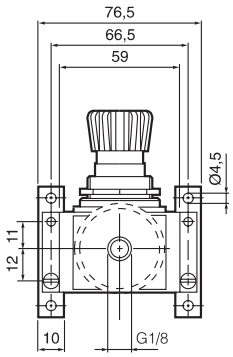
Technical information

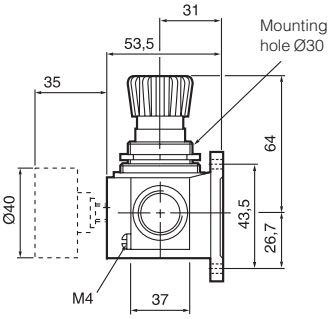
Gauge port size	G1/8	
Maximum inlet pressure	20 bar max	
Flow	See performance characteristics	
Secondary pressure range	Low	0,2 to 2 bar max
	Low	0,2 to 4 bar max
	Medium	0,4 to 8 bar max
	High	0,4 to 16 bar max
Temperature range	-10°C to +75°C	
Weight (g) without port blocks	330	

For accessories and port blocks see page 37.

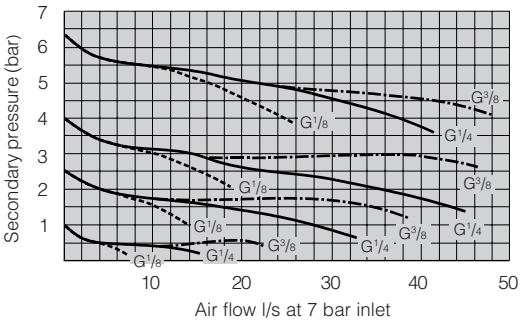
For Gauges see page 61.

Dimensions (mm)

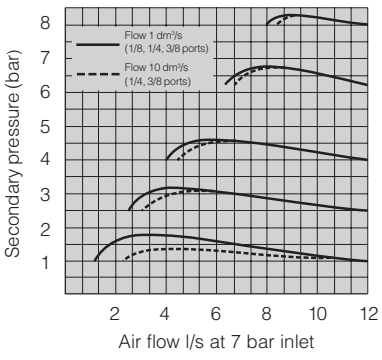




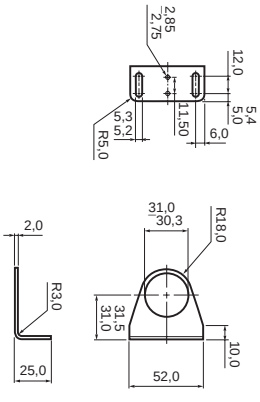
Flow characteristics



Regulation characteristics

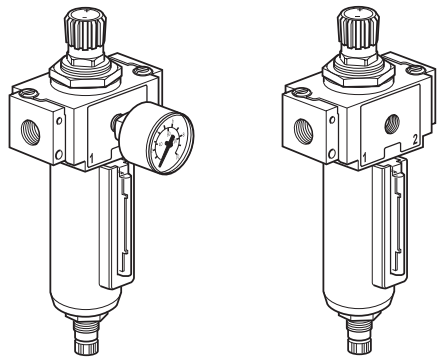


Regulator angle bracket

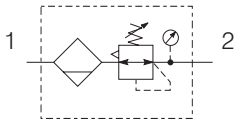


Modular Junior FRLs

Filter/Regulators



Symbol



- Choice of metal bowl with convex sight glass or transparent nylon bowl.
- Elastomatic filter elements shrug off larger dirt particles as flow varies.
- 5 micron element as standard, option 40 micron.
- One balanced, self relieving, diagram operated unit for all flows and combinations - optional non-relieving unit available.
- Simple push to lock non-rising adjustment knob with low operating torque; easily tamperproofed.
- Four secondary pressure ranges available, with colour coded adjustment knobs.
  16 bar Orange, 8 bar Black, 4 bar Grey, 2 bar Blue

Options:

P3D - EA [ ] [ ] [ ] [ ] [ ] [ ] **P**

G1/8	11
G1/4	12
G3/8	13
Without Port blocks	00

Transparent Bowl Manual Drain	B
Transparent Bowl Semi Auto Drain	C
Metal Bowl Manual Drain	K
Metal Bowl Semi Auto Drain	L

5 Micron Element Std	E
40 Micron Element	G

Relieving	B
Non-relieving	N

Note: For customised combinations consult Technical Sales Department.

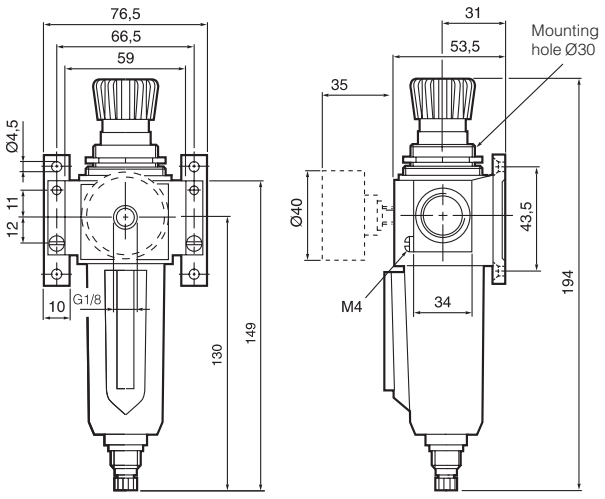
0,4 - 8 bar + Gauge	G
0,4 - 8 bar No Gauge	N
0,2 - 2 bar + Gauge	Z
0,2 - 2 bar No Gauge	Y
0,2 - 4 bar + Gauge	M
0,2 - 4 bar No Gauge	L
0,4 - 16 bar + Gauge	J
0,4 - 16 bar No Gauge	H

Technical information

Gauge port size	G1/8	
Maximum inlet pressure	Metal bowls	17 bar max
	Nylon bowls	10 bar max
Secondary pressure range	Low	0,2 to 2 bar max
	Low	0,2 to 4 bar max
	Medium	0,4 to 8 bar max
	High	0,4 to 16 bar max*
Filter element grade	Standard	5 micron
	Option	40 micron
Temperature range	-10°C to +50°C Nylon bowl	
	-10°C to +75°C Metal bowl	

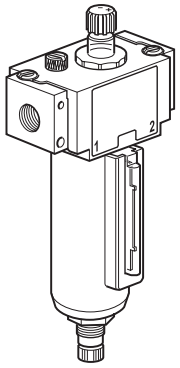
For performance graphs see Regulator page 27.

Dimension (mm)

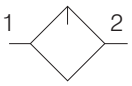


For accessories and port blocks see page 37.
For Gauges see page 61.
For Repair Kits and Spares see page 62 and 63.

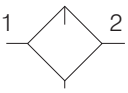
Lubricators



Symbols



Lubricator



Lubricator with drain

- Choice of transparent nylon or metal bowls with convex integral sight glasses.
- Quick release bowl mechanism - added safety bowls cannot be removed whilst pressurised.
- Sight glass can be located in 90^0 increments.
- Constant density lubrication with fingertip adjustment.
- Low flow oil pick up capability.
- 360^0 drip rate sight glass gives all round visibility, contained in separately serviceable cartridge.

Options:

P	3	D	-	L	A					F	N

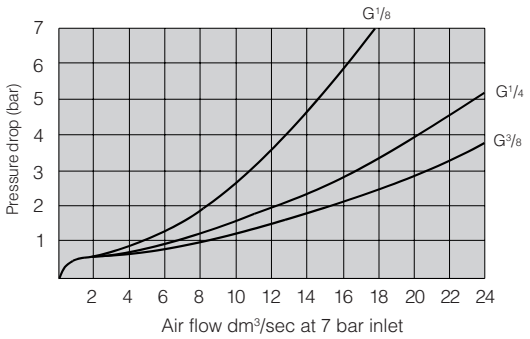
	Thread
11	G1/8
12	G1/4
13	G3/8
00	Without

	Bowl / drain
A	Transparent Bowl Without Drain
B	Transparent Bowl Manual Drain
K	Metal Bowl Manual Drain

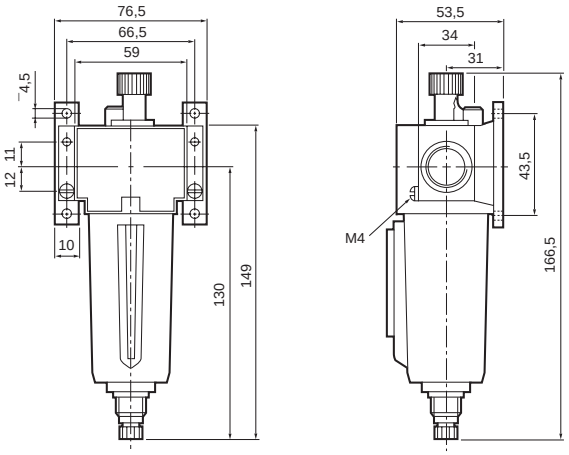
Technical information

Pressure range:	10 bar max Nylon bowl
	17 bar max Metal bowl
Temperature range:	-10°C to +50°C Nylon bowl
	-10°C to +75°C Metal bowl
Flow	See performance characteristics
Weight (g)	286g Nylon bowl
without port blocks	456g Metal bowl
Minimum flow for oil pick up	0,25 dm^3/s
Bowl capacity	55 cm^3
Recommended lubricants	See page 63

Flow characteristics



Dimensions (mm)



For accessories and port blocks see page 37.

For Repair Kits and Spares see page 62 and 63.

Modular Junior FRLs

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

The soft start valve is an ideal method of providing a fully adjustable controlled introduction of pressure.

Soft Start Valve Operation:

The switch point is set via the control knob and is fully adjustable between 1 and 5 bar. Additionally the bleed orifice which delays the rise in pressure is supplied as standard in several diameters:-
Ø1,5mm, Ø2,2mm, Ø3mm, and Ø3,8mm.

These are field interchangeable by removing the top plug of the valve.

The soft start valve will, when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

In normal operation the soft start valve is assembled, in series, with an accompanying air pilot, solenoid pilot or manually actuated dump valve. This is used as an on - off switch for line pressure, and for exhausting the system.

Typical combinations

Fig. 1.

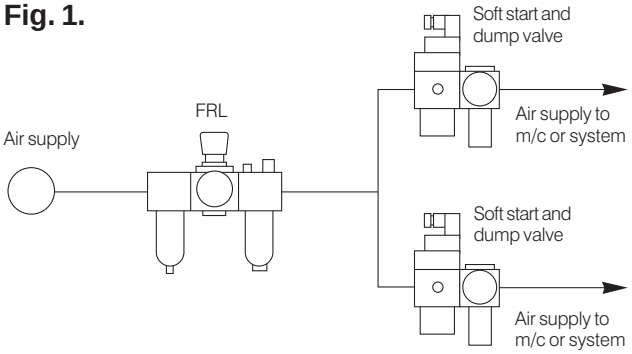


Fig.1. enables part of a system to be isolated and the air dumped to atmosphere whilst operating another part normally.

Fig. 2.

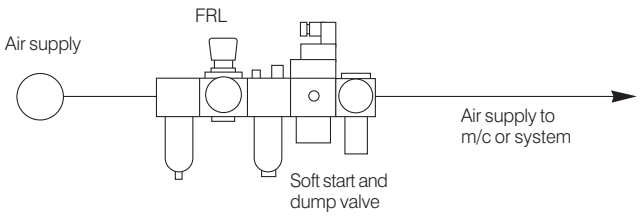
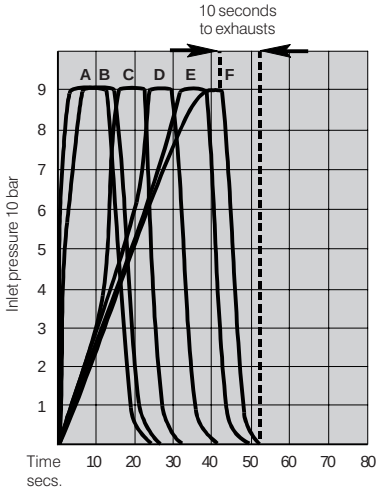


Fig. 2. shows the Soft Start and Dump valve assembled as part of the main 1/4" Modular FRL combination feeding an entire system.

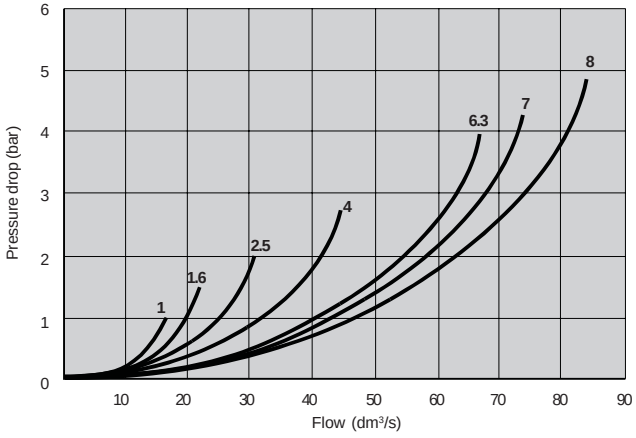
Effect of orifice on flow characteristics of pneumatic switch (with 1.5mm bleed orifice)



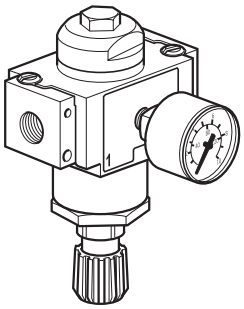
10 bar inlet
10 litre volume

A 1 to 3 turns
B 4 turns
C 5 turns
D 6 turns
E 7 turns
F 8 turns

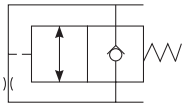
Flow characteristics for ('Soft Start' valve)



Soft Start Valves



Symbol



- Manually operated
- Controlled induction of pressure
- Fully adjustable switch point

Options:

P	3	D	-	S	A				0	N

	Thread
11	G1/8
12	G1/4
13	G3/8
00	Without

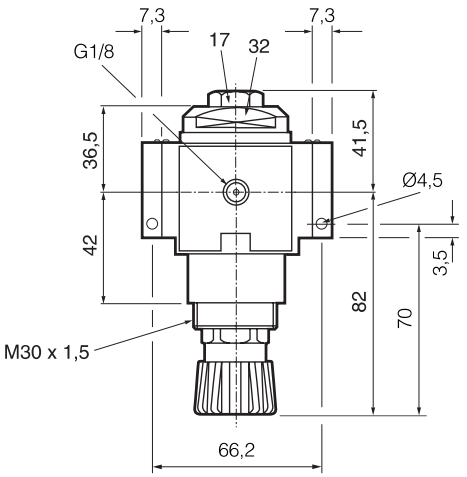
	Gauge
M	Without
G	With

Technical information

Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	2500 l/min - 41.7 dm³/s
Weight	428g

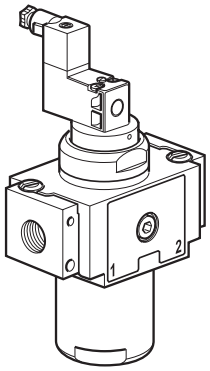
Note: For materials see page 34.

Dimensions

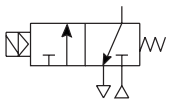


Modular Junior FRLs

Remotely Operated Dump Valves



Symbol



- Air pilot or solenoid pilot operated dump valves
- Low Watt solenoid coils

  Valves for other than 24 V DC to be purchased less solenoid & solenoid ordered separately.

Options:

P	3	D	-	D	A					N				

	Thread
11	G1/8
12	G1/4
13	G3/8
00	Without

	Piloting
SG	Solenoid
SC	CNOMO Solenoid
PQ	Air pilot

	Solenoid
0	None
2	DC

	Voltage
CN	24 VDC
00	Without Solenoid

For alternative solenoids see page 16.

Technical information

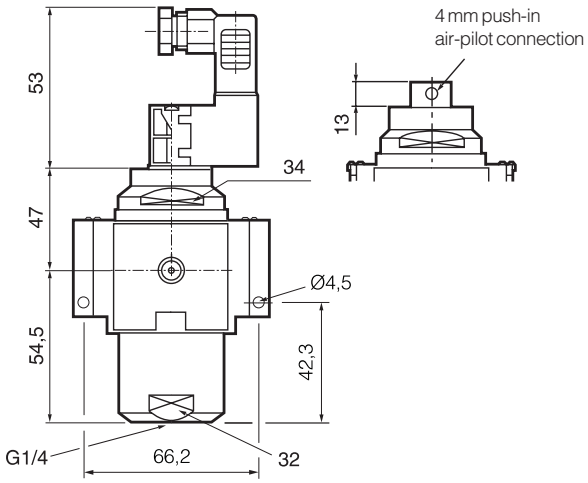
Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	
Through valve	to exhaust
2500 l/min - 41.7 dm³/s	2000 l/min - 33.3 dm³/s
Weight	484g

Note: For materials see page 34.

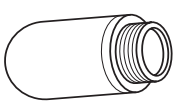
Operation

Remotely operated dump valves automatically shut off upstream pressure and exhaust the downstream pressure when the pilot pressure is released.
To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version mist be maintained.
The valve will automatically dump when the holding signal is removed.

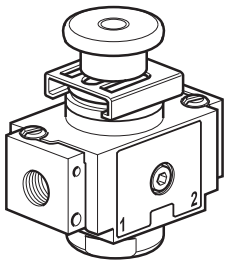
Dimensions



Muffler included with each product.

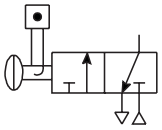


Manually Operated Dump Valves



- Shuts off upstream and dumps downstream pressure.
- Choice of red or black knobs.
- G1/8, G1/4 or G3/8 ports.
- Ventral G1/4 exhaust port.
- Padlockable version.
- 2 position or latching versions.

Symbol



BISTABLE version
The dumping of downstream pressure is manually actuated by depressing the knob.
To reset, both effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE version . 2 exhaust dump functions
Manually, by maintaining the button thrust down during time required to dump the downstream pressure.
Automatically, when the upstream pressure falls below the set pressure threshold.
To reset, effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE dump valves are an important element in machine safety considerations. After a unexpected upstream pressure failure, e.g compressor break down), system pressure reset will be only be obtained by lifting the knob combined with having an effective upstream pressure.

Options:

P	3	D	-	D	A					N

	Thread
11	G1/8
12	G1/4
13	G3/8
00	Without

	Knob / Function
B	Black - 2 position
R	Red - 2 position
N	Red - Latching
M	Black - Latching

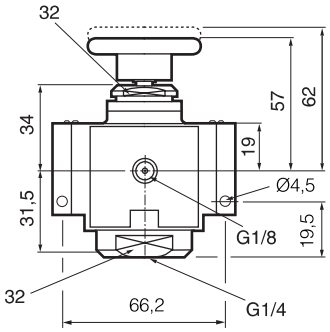
	Locking Clip
N	Without Locking Clip
L	With Locking Clip

Technical information

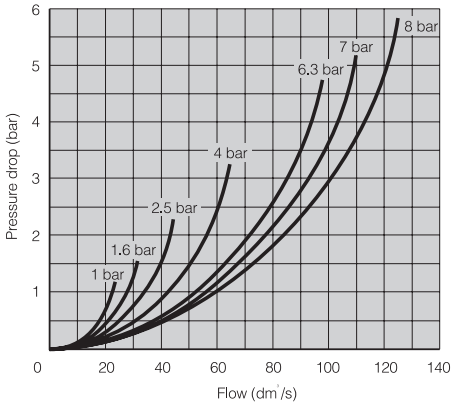
Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C
Flow @ 6 bar	
Through valve	to exhaust
2600 l/min - 43.3 dm³/s	2800 l/min - 46.7 dm³/s
Weight	360g

Note: For materials see page 34.

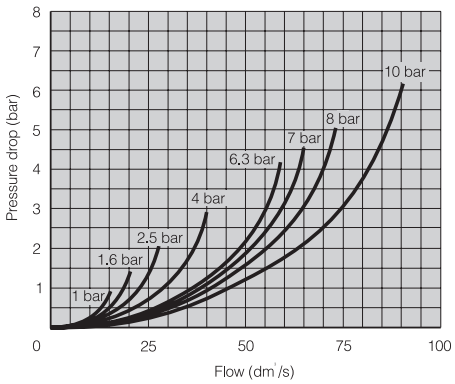
Dimensions



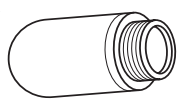
Flow characteristics: Inlet to secondary



Flow characteristics: Secondary to exhaust



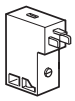
Muffler included with each product.



Solenoids for Soft Start and Dump Valves

Solenoids for Dump Valves (15mm solenoid)

Supplied with cable plug and non-locking flush manual override

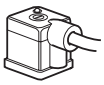


Voltage	Order code
12VDC	**P2E-KV32BN**
24VDC	**P2E-KV32CN**
12V 50Hz/60Hz	**P2E-KV34BN**
24V 50Hz	**P2E-KV31CN**
115V 50Hz/120VAC 60Hz	**P2E-KV31FN**
230V 50Hz/240VAC 60Hz	**P2E-KV31JN**

Cable plugs 15 mm (8 mm pin spacing) IP 65

Description	Order code
Large headed screw for inaccessible or recess position	
Standard to be wired universal	**P8C-C**
To be wired LED+protection 24 VDC	**P8C-C26C**

Description	Order code
With standard screw	
Standard to be wired universal	**P8C-D**
To be wired LED+protection 24 VDC	**P8C-D26C**

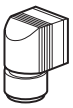


Description	Order code
With cable and standard screw	
Standard with 2 m cable	**P8L-C2**
Standard with 5 m cable	**P8L-C5**
LED+protection 24 VAC/DC, 2 m	**P8L-C226C**
LED+protection 24 VAC/DC, 5 m	**P8L-C526C**

Solenoids for Dump Valves (CNOMO solenoid)

Supplied with cable plug and non-locking override

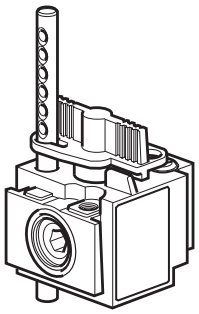
Voltage CNOMO-Solenoids	Order code
24VDC (48V 50Hz)	**P2G-PV32C1**
24V/50Hz/60Hz (11VDC)	**P2G-PV34C1**
110V/50Hz/60Hz (50VDC)	**P2G-PV34E1**
230V/50Hz/60Hz (120VDC)	**P2G-PV34J1**
12V/50Hz/60Hz (6VDC)	**P2G-PV34B1**



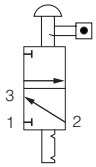
Description Cable plug, for CNOMO solenoid	Order code
24V, LED+Diode	**9125 9980-04**
24V AC/DC, LED+VDR	**9125 9980-06**
110V AC/DC, LED+VDR	**9125 9980-08**
240V AC/DC, LED+VDR	**9125 9980-10**
Black	**451B**

Modular Junior FRLs

Junior Modular Ball Valve



Symbol



- Positive bubble tight shut-off.
- Upstream and downstream versions.
- Padlockable version.
- Ventral G1/4 exhaust port.

Connection	Pressure max, bar	Actuation	Note	Weight Kg	Order code	Flow @ 6 bar l/min	Flow @ 6 bar dm³/s
Upstream	10	Hand	Standard	0,230	**P3D-VA00A0N**	1400	23.3
Downstream	10	Hand	Standard	0,230	**P3D-VA00B0N**	1400	23.3
Upstream	10	Hand	3 Padlock Facility	0,255	**P3D-VA00P0N**	1400	23.3
Downstream	10	Hand	3 Padlock Facility	0,255	**P3D-VA00R0N**	1400	23.3
Upstream	10	Hand	6 Padlock Facility	0,260	**P3D-VA00Q0N**	1400	23.3
Downstream	10	Hand	6 Padlock Facility	0,260	**P3D-VA00S0N**	1400	23.3

Note! Modular Ball valves have an integral body connector on one side and a slot to accept a port block or body connector on the other.
Note! Cannot be used separately.

Materials

Filter

Body	Zinc
Fixing Screws	Plated Steel
Bowl (metal)	Zinc
Bowl (transparent)	Polyamide
Sight Glass	Polyamide
Louvre	Acetal
Element	Nylon 6
Manual Drain	Acetal
Semi-Auto Drain	Acetal / Brass
Springs	Stainless Steel
Seals	Nitrile

Regulator

Body	Zinc
Fixing Screws	Plated Steel
Control Knob	Acetal
Adjusting Screw	Plated Steel
Spring Rest (upper)	Brass
Spring Rest (lower)	Steel / Brass
Spring	Plated Steel
Diaphragm	Nitrile / Nylon
Valve Stem	Brass
Valve Seat	Nitrile
Bottom Cap	Acetal
Springs	Stainless Steel
Seals	Nitrile

Lubricator

Body	Zinc
Fixing Screws	Plated Steel
Bowl (metal)	Zinc
Bowl (transparent)	Polyamide
Sight Glass	Polyamide
Knob	Acetal
Venturi Valve	Acetal
Transfer Tube	Nylon
Tube Retainer	Brass
Springs	Stainless Steel
Seals	Nitrile
Fill Plug	Aluminium

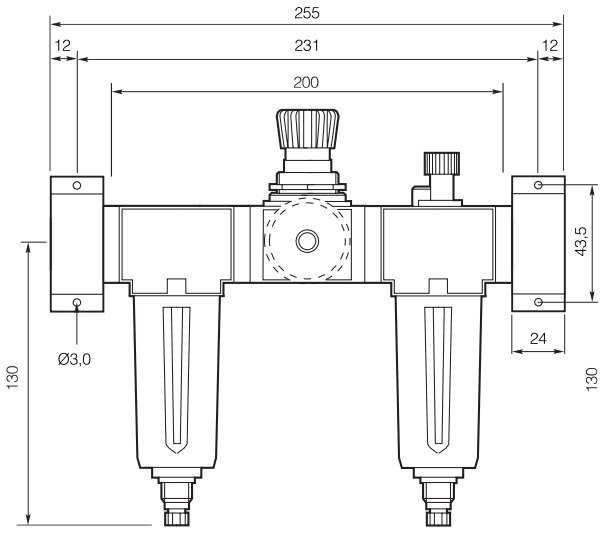
Accessory Products

Bodies	Zinc
Housings	Aluminium
Fixing Screws	Plated Steel
Knobs	Acetal
Valve Stems	Brass
SSV Main Spring	Plated Steel
Springs	Stainless Steel
Seals	Nitrile
Body Connectors	Zinc
Port Blocks	Zinc

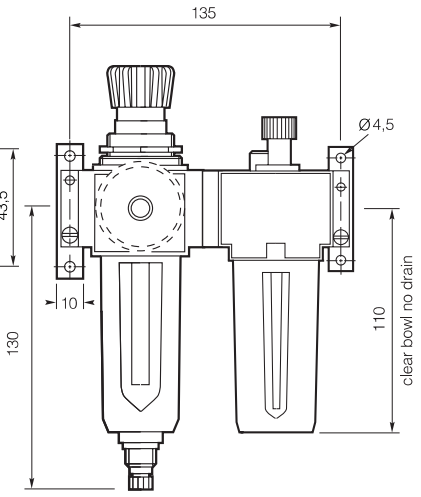
Dimensions

The modular system ensures constant mounting centres; assemblies are fixed to the special wall brackets by a single fixing screw.

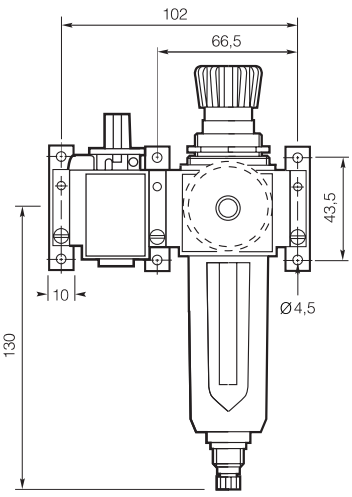
Filter, Regulator, Lubricator



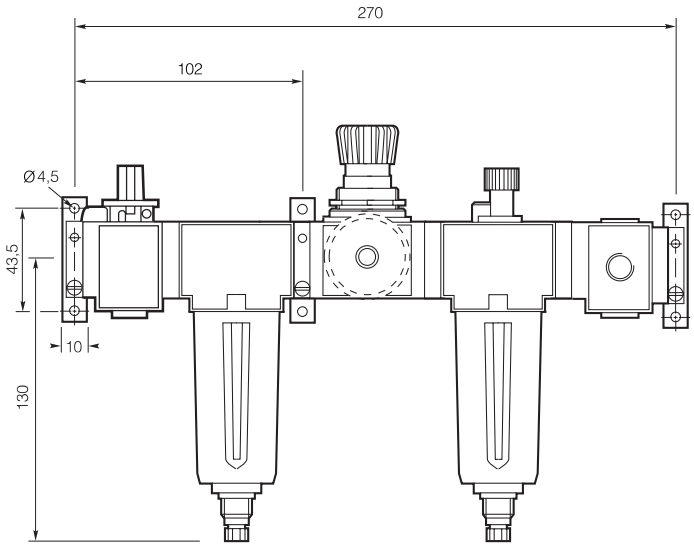
Filter/Regulator, Lubricator



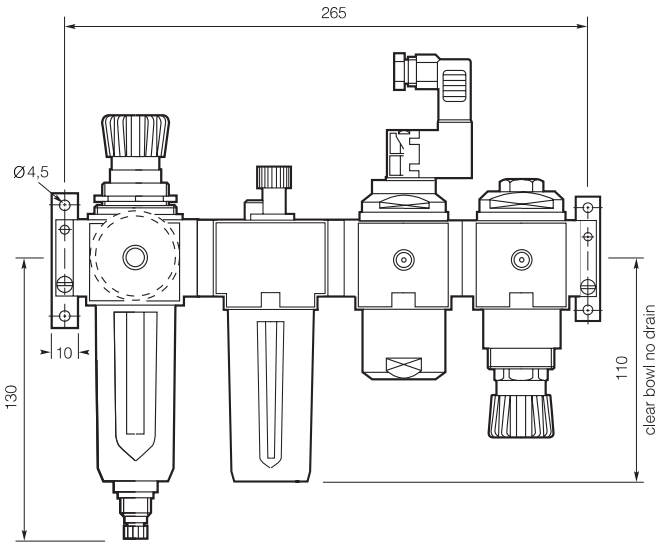
Ball Valve + Filter/Regulator



Ball valve, Filter, Regulator, Lubricator, Manifold



Filter/Regulator, Lubricator, Dump valve, Soft start valve



All dimensions in (mm).

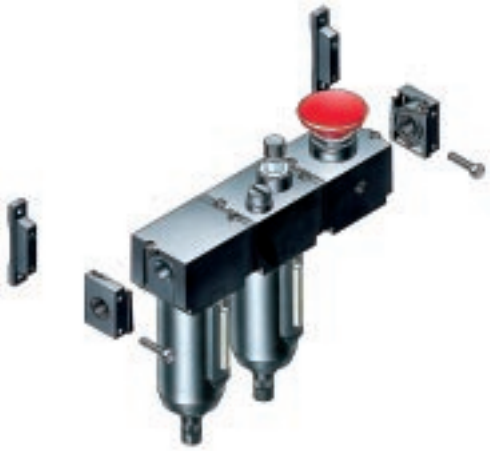
Mounting assemblies

Assembly containing a regulator or filter regulator

Assembly without regulator or filter regulator

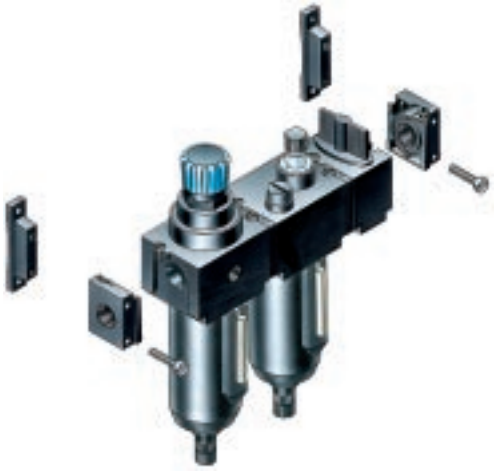
Wall brackets mounted at the ends of an assembly

Wall brackets mounted at the ends of an assembly

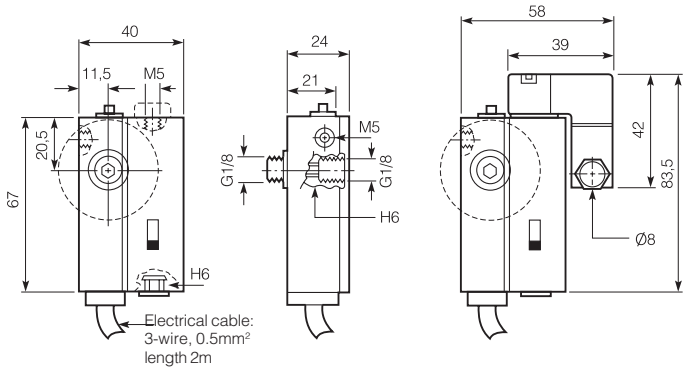


Neck mounting bracket on Filter/Regulator

Popular combination with wall mounting brackets



Adjustable Reset Pressure Switches



The Adjustable Reset Pressure Switch is designed to provide a safeguard for pneumatic systems or machines, which require a minimum operating pressure to operate effectively. When the correct pressure is present the switch provides a constant output signal which should be used to operate a control valve or device to enable the system to perform its normal function. If the operating pressure falls below the set level, the constant output signal is cancelled, allowing the control valve or device to stop the system in a safe manner.

Once the pressure rises above the preset threshold, unlike a conventional pressure switch, the Adjustable Reset Pressure Switch must be reset before it can once again transmit the output signal authorising operation. The reset signal may be manual, pneumatic or electrical.
Versions are available to provide either pneumatic or electrical output signals or both.

Pneumatic characteristics

Pressure range	:	1,5 to 8 bar max
Temperature range	:	-10⁰ to +55⁰C
Adjustment range	:	1,5 to 6 bar
Precision	:	±0,2 bar

Electrical characteristics

Electrical output	:	On/Off relay
5A / 250V A.C.		
5W / 48V D.C.		
Electrical reset = 1W		

Part nos. Switches

Part no.	Description
P3E-KA11SAN	Pneumatic output, manual reset.
P3E-KA11SBN	Pneumatic output, reset.
P3E-KA11SCN	Electrical and pneumatic outputs, manual resets.
P3E-KA11SDN	Electrical and pneumatic outputs, pneumatic reset.
P3E-KA11SEN	Electrical and pneumatic outputs, electrical reset

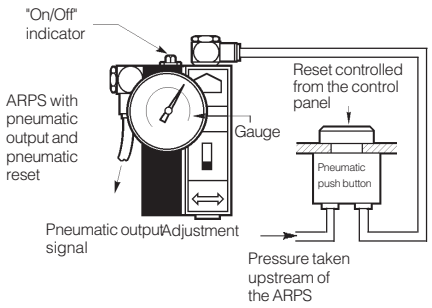
Note: Micro-solenoid not included.
Micro-solenoid valve must be ordered separately.

Micro-Solenoid Valve (Non-locking override) for pressure switch

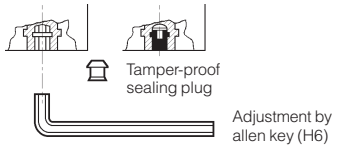
Part no.	Description
P2E-LV32B1	12V. D.C.
P2E-LV32C1	24V. D.C.
P2E-LV32D1	48V. D.C.
P2E-LV34B1	12V. 50/60Hz
P2E-LV31C1	24V. 50Hz
P2E-LV33C1	24V. 60Hz
P2E-LV34D1	48 V. 50/60Hz
P2E-LV31F1	115V. 50Hz / 120V. 60Hz
P2E-LV31J1	230V. 50Hz / 240V. 60Hz

See cable plugs Page 16

Pneumatic remote controlled reset

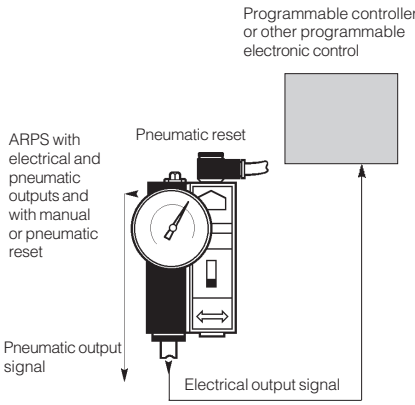


Adjusting the cut-off pressure

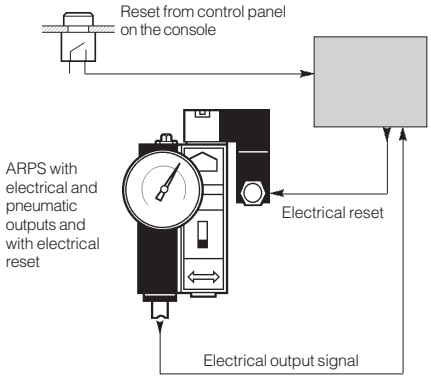


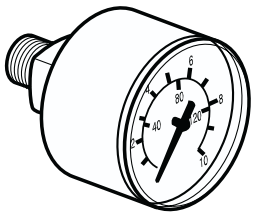
On all ARPS, the tripping pressure is adjusted by an allen key. Tamper proof sealing plug prevents unauthorised adjustment.

Direct pressure return



Pressure return through programmable control





- Wide range of pressure gauges
- Rear entry and bottom entry options
- Back pressure gauge for reclassifier-silencers
- Round or square panel mounted gauges
- Integrated thread sealing ring

Pressure gauges

Symbol	Description	Pressure range, bar	Port size	Dial mm	Weight Kg	Order code
	Rear entry	0-2,	G1/8	40	0,062	**P3D-KAB1AYN**
		0-4	G1/8	40	0,062	**P3D-KAB1ALN**
		0-10	G1/8	40	0,062	**P3D-KAB1ANN**
		0-20	G1/8	40	0,062	**P3D-KAB1AHN**
	Rear Entry	0-4	G1/8	50	0,068	**P6G-ERB1040**
		0-11	G1/8	50	0,068	**P6G-ERB1110**
		0-14	G1/8	50	0,068	**P6G-ERB1140**
	Rear entry	0-4	G1/4	50	0,074	**P6G-ERB2040**
		0-14	G1/4	50	0,074	**P6G-ERB2140**
		0-20	G1/4	50	0,074	**P6G-ERB2200**
	Bottom entry	0-11	G1/8	50	0,065	**P6G-EBB1110**
	Panel Mounted - Rear Entry	0-14	G1/8	50	0,066	**P6G-EPA1140**
		0-11	G1/8	63	0,080	**P6G-FPA1V10**
		0-10	G1/4	85	0,180	**P6G-HPA1100**
	Square - Panel Mounted - Rear Entry	0-10	G1/8	50x50	0,100	**P6G-RPA1100**
		0-4	G1/8	75x75	0,200	**P6G-TPA1040**
		0-10	G1/8	75x75	0,190	**P6G-TPA1100**
	Rear Entry - BackPressure (Reclassifiers)	0-2	G1/8	40	0,062	**P6G-DEB1020**

Panel mounting gauges

Panel mounting gauges have a threaded body and are supplied complete with a plastic mounting collar.

Filter Spare Kits Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Drain Kits				
Manual drain kit	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**
Semi-auto drain kit	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**
Auto drain kit			**P3E-KA00DDN**	**P3E-KA00DDN**
Bowl Kits **Poly bowl**				
Poly bowl with manual drain	**P3A-KA00BBA**	**P3D-KA00BBA**	**P3E-KA00BBA**	
Poly bowl with semi-auto drain	**P3A-KA00BCA**	**P3D-KA00BCA**	**P3E-KA00BCA**	
Poly bowl with auto drain			**P3E-KA00BDA**	
Metal bowl				
Metal bowl with manual drain	**P3A-KA00BPA**	**P3D-KA00BKA**	**P3E-KA00BKA**	
Metal bowl with semi-auto drain	**P3A-KA00BQA**	**P3D-KA00BLA**	**P3E-KA00BLA**	
Metal bowl with auto drain			**P3E-KA00BMA**	
Compact metal bowl with manual drain			**P3E-KA00BTA**	
Compact metal bowl with semi-auto drain			**P3E-KA00BVA**	
Compact metal bowl with auto drain			**P3E-KA00BWA**	
Filter Element Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EEN**	**P3E-KA00EEN**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ERN**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EGN**	**P3E-KA00EGN**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00ESN**	
Coalescing element	**P3A-KA00ECN**	**P3D-KA00ECN**	**P3E-KA00ECN**	**P3NKA00ESC**
Coalescing element (compact bowl)			**P3E-KA00EPN**	
Adsorber element	**P3A-KA00EAN**	**P3D-KA00EAN**	**P3E-KA00EAN**	**P3NKA00ESA**
Adsorber element (compact bowl)			**P3E-KA00ENN**	
Seal Kits				
Poly bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RZN**	
Metal bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RWN**	
Connector O ring (10 off)	**P3A-KA00CYN**	**P3D-KA00CYN**	**P3E-KA00CYN**	
Regulator Spare Kits				
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00RRN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RNN**	**P3NKA00RN**
Metal panel mounting ring	**P3A-KA00MMN**	**P3A-KA00MMN**	**P3E-KA00MMN**	
Plastic panel mounting ring (5 off)	**P3A-KA00MPN**	**P3A-KA00MPN**		
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	

Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Filter/Regulator Spare Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EFA**	**P3E-KA00EFA**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ETA**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EHA**	**P3E-KA00EHA**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00EVA**	
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00REN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RGN**	**P3NKA00RN**
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	
For Drain Kits - see Filters on page 62				
For Bowl Kits - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				
Lubricator Spare Kits				
Plastic bowl without drain	**P3A-KA00BAA**	**P3D-KA00BAA**	**P3E-KA00BAA**	
For Manual Drain Kits - see Filters on page 62				
For Bowl Kits with Manual Drain - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				

Lubrication of airlines

Satisfactory operation of airline equipment and effective lubrication depends upon the proper selection of lubrication oil. Oils having a viscosity below ISO3448 Grade 10 to 22 will satisfy most high-speed pneumatic tools and other light duty requirements.

Heavy duty tools and pneumatic valves and cylinders will normally require oils in the viscosity ISO3448 Grade 32 to 68.

Only Paraffinic based oils can be used and the following recommendations are given as a general guide to types of oil that are suitable for use with Parker airline equipment.

	High speed tools and systems		Air Cylinders and valves	
Oil Company	**ISO Grade**	**Grade**	**ISO Grade**	**Grade**
Century Oils	Century P - 198	15	P.W.L.A	32
Alexander Duckham	Zurcon 2	15	Zurcon 4 32	
Gulf	Harmony 38AW	15	Harmony 43AW	32
Shell (UK) Oil	Tellus 22	22	Tellus 37	37
Burmah Castrol	Hyspin AWS15	15	Hyspin AWS32	32
Edgar Vaughan	KSO 5L	10	Hydrodrive HP100	32
Esso Petroleum	NUTO 1115	15	NUTO H32	32
B.P.	HLP 22	22	HLP 32	32
Mobile Oil Company	Velocite No.6	10	DTE Oil - Light	32
Mobile			VPI-A	32
Silkolene	Silkair GP22	22	Derwent 32	32
Silkolene	Dove 15	15		

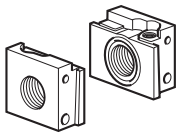
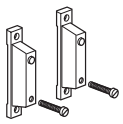
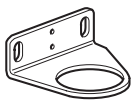
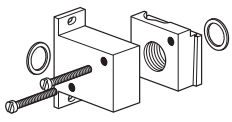
Most Parker Pneumatic valves and cylinders are designed for use in non-lube operation. However airline lubrication will increase the service life.

Note! If oil lubrication is used, it must be maintained for the service life of the product.

Some specialised lubricants, particular synthetic reclaimed oils and low temperature additives, may contain compounds which are incompatible with certain materials, internal 'O' rings and seals. They may also attack plastic piping or the transparent bowls of the airline lubricator. Attention is drawn to BS6005 (Specification for moulded transparent polycarbonate bowls used in compressed air filters and lubricators).

Do not use oils with additives, compounds oils containing solvents, graphite, detergents or synthetic oils.

Accessories

Description	Connection	Weight	Order code Kg	
Port connector kits (2 port blocks + 2 seals)	G1/8	0,150	**P3D-KA11CPN**	
	G1/4	0,150	**P3D-KA12CPN**	
	G3/8	0,150	**P3D-KA13CPN**	
Body connector	Without port	0,088	**P3D-KA00CBN**	
	With G1/4 ventral port	0,088	**P3D-KA12CAN**	
Wall mounting kit (2 brackets + 2 screws)		0,048	**P3D-KA00MWN**	
DIN rail mounting kit for P3A-KA00MRN		0,010	**P3A-KA00MKN**	
Regulator angle bracket kit (Angle bracket + mounting ring)		0,020	**P3A-KA00MRN**	
Plastic panel mounting ring		0,010	**P3A-KA00MPN**	
Metal panel mounting ring		0,016	**P3A-KA00MMN**	
Regulator Tamperproof kit (Kit contains 5 pieces)		0,010	**P3A-KA00ATN**	
Modular manifold block* (Includes port plugs)	1 x G1/8 2 x G1/4	0,208	**P3D-MA1V**	
Rear entry connector kit	G1/4	0,120	**P3D-KA12CRN**	

***Note:** Modular manifold blocks have an integral Body Connector on one side and a slot to accept a Port Block or Body Connector on the other.

Modular Maxi FRLs

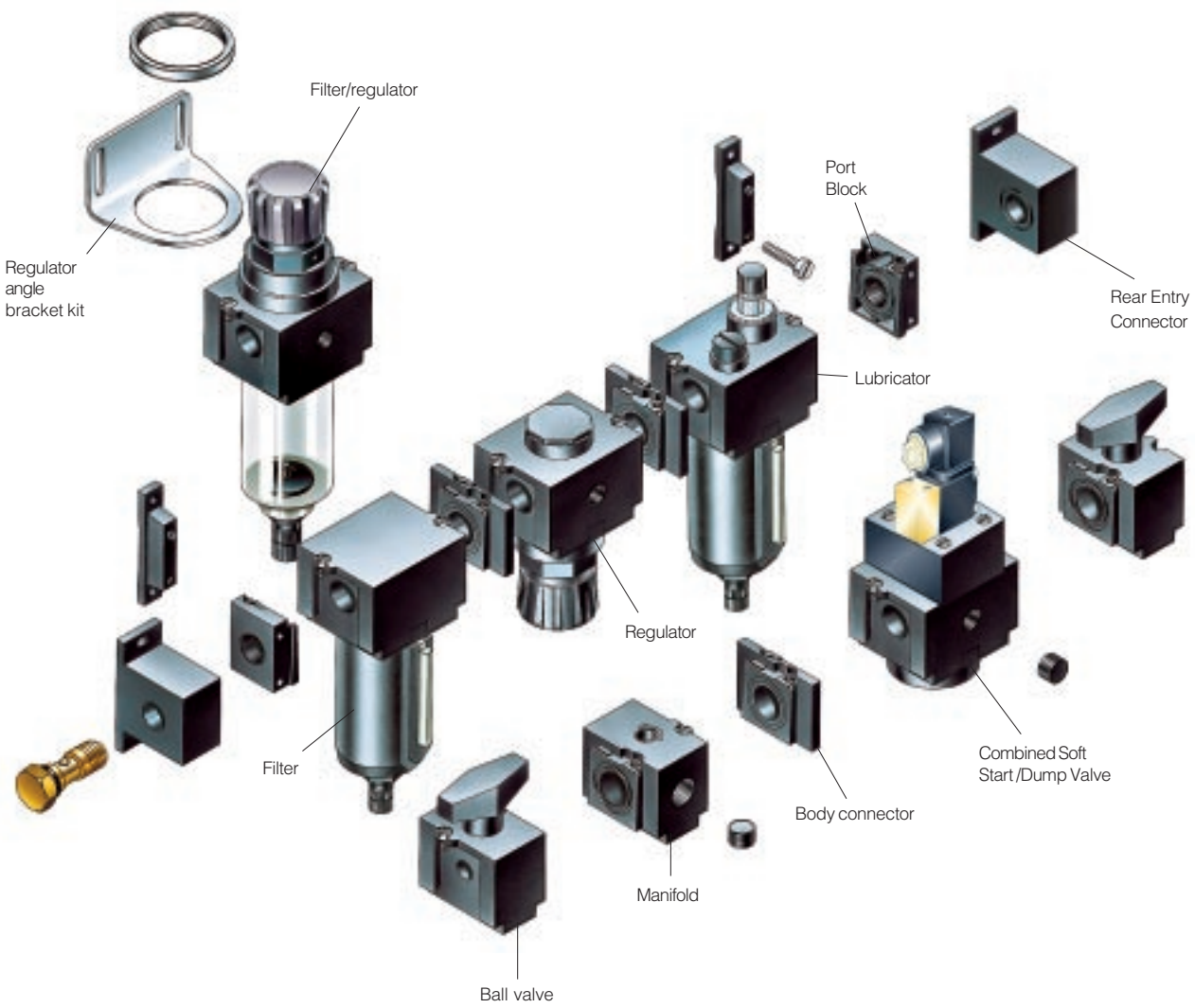
The System

The Modular 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 system comprises standard units with a common body size, body connectors and separate port blocks with a choice port thread. This provides the designer with a truly modular system which can be adapted and expanded to suit the future needs of the application.

The system also allows units to be removed from the air line without disturbing the fixed pipe connections greatly simplifying maintenance.

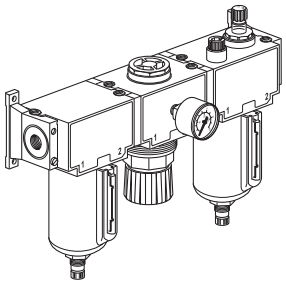
The Modular system comprises Filters, Coalescing Filters, Adsorbers, Regulators, Combined Filter - Regulators and air line Lubricators together with a wide range of accessory products including Soft Start Valves, Dump Valves, Manifolds and Rear Entry Connectors.

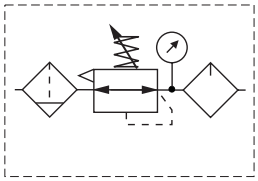


Coloured knobs

16 bar	Orange	
8 bar	Black	
4 bar	Grey	

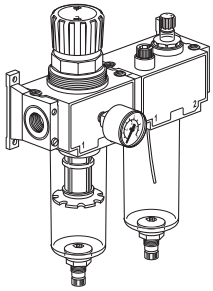
Popular combinations

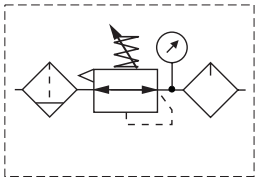




FRL Combinations
5 micron elements, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	High flow Metal Bowl Manual Drain	High flow Metal Bowl Semi-Auto Drain	High Flow Metal Bowl Auto Drain	Transparent Bowl + Manual Drain	Transparent Bowl + Semi-Auto Drain	Transparent Bowl + Auto Drain	Flow @ 6 bar l/min	Flow @ 6 bar dm^3/s
$G^3/_8$	**P3E-CB13KGB**	**P3E-CB13LGB**	**P3E-CB13MGB**	**P3E-CB13BGB**	**P3E-CB13CGB**	**P3E-CB13DGB**	3600	60
$G^1/_2$	**P3E-CB14KGB**	**P3E-CB14LGB**	**P3E-CB14MGB**	**P3E-CB14BGB**	**P3E-CB14CGB**	**P3E-CB14DGB**	3800	63.3
$G^3/_4$	**P3E-CB16KGB**	**P3E-CB16LGB**	**P3E-CB16MGB**	**P3E-CB16BGB**	**P3E-CB16CGB**	**P3E-CB16DGB**	3800	63.3





Filter/Regulator - Lubricator Combinations
5 micron elements, 8 bar Regulator + Gauge and Wall Mounting Brackets

Port size	High flow Metal Bowl Manual Drain	High flow Metal Bowl Semi-Auto Drain	High Flow Metal Bowl Auto Drain	Transparent Bowl + Manual Drain	Transparent Bowl + Semi-Auto Drain	Transparent Bowl + Auto Drain	Flow @ 6 bar l/min	Flow @ 6 bar dm^3/s
$G^3/_8$	**P3E-CA13KGB**	**P3E-CA13LGB**	**P3E-CA13MGB**	**P3E-CA13BGB**	**P3E-CA13CGB**	**P3E-CA13DGB**	3600	60
$G^1/_2$	**P3E-CA14KGB**	**P3E-CA14LGB**	**P3E-CA14MGB**	**P3E-CA14BGB**	**P3E-CA14CGB**	**P3E-CA14DGB**	3600	60
$G^3/_4$	**P3E-CA16KGB**	**P3E-CA16LGB**	**P3E-CA16MGB**	**P3E-CA16BGB**	**P3E-CA16CGB**	**P3E-CA16DGB**	3600	60

Part no. **P3E-** ☐ ☐ ☐☐ ☐ **G** **B**

Options:

Upstream Ball Valve as first unit	**A**
Downstream Ball Valve as last unit	**B**
No Ball Valve	**C**

F/R+L combination	**A**
F+R+L combination	**B**
F/R L Combination + $G^1/_4$ ported body connector after Filter/Regulator	**J**
F/R L Combination + Manifold after Filter/Regulator	**H**
FRL combination + Manifold after Regulator	**K**
FRL combination + $G^1/_4$ ported body connector after Regulator	**L**

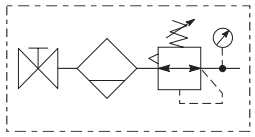
$G^3/_8$	**13**
$G^1/_2$	**14**
$G^3/_4$	**16**
Without port blocks	**00**

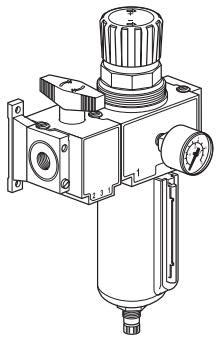
Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**
Transparent Bowl Auto Drain	**D**
High Flow Metal Bowl Manual Drain	**K**
High Flow Metal Bowl Semi Auto Drain	**L**
High Flow Metal Bowl Auto Drain	**M**
Compact Metal Bowl Manual Drain	**T**
Compact Metal Bowl Semi Auto Drain	**V**
Compact Metal Bowl Auto Drain	**W**

Note: For customised combination consult Technical Sales Department.

Popular combinations

Filter/Regulator and Ball valve combinations with wall mounting brackets





Ports	Pressure	Metal Bowl			Transparent bowl			Flow @ 6 bar	
	max, bar	Manual	Semi-Auto	Auto	Manual	Semi-Auto	Auto	l/min	dm^3/s
G1/2	17	**P3E-AN14KGB**	**P3E-AN14LGB**	**P3E-AN14MGB**				4000	66.7
G3/4	17	**P3E-AN16KGB**	**P3E-AN16LGB**	**P3E-AN16MGB**				4000	66.7
G1/2	10				**P3E-AN14BGB**	**P3E-AN14CGB**	**P3E-AN14DGB**	4000	66.7
G3/4	10				**P3E-AN16BGB**	**P3E-AN16CGB**	**P3E-AN16DGB**	4000	66.7

Options:

P	3	E	-		N					B

	Ball valve
A	Upstream Ball Valve as first unit
B	Downstream Ball Valve as last unit

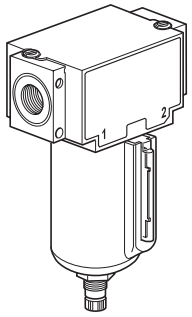
	Thread
13	G3/8
14	G1/2
16	G3/4

Transparent Bowl Manual Drain	**B**
Transparent Bowl Semi-Auto Drain	**C**
Transparent Bowl Auto Drain	**D**
High Flow Metal Bowl Manual Drain	**K**
High Flow Metal Bowl Semi Auto Drain	**L**
High Flow Metal Bowl Auto Drain	**M**
Compact Metal Bowl Manual Drain	**T**
Compact Metal Bowl Semi Auto Drain	**V**
Compact Metal Bowl Auto Drain	**W**

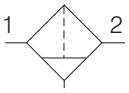
	Gauge
N	Without gauge
G	With gauge

Note!
For customised combinations consult Technical Sales Department.

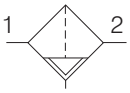
Filters



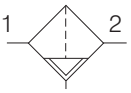
Symbols



Manual drain



Semi auto drain



Auto drain

- Choice of metal bowls with convex integral sight glasses or transparent nylon bowls.
- Quick release bowl mechanism - added safety, bowl cannot be removed whilst pressurised.
- Sight glass can be located in 90° increments.
- Elastomatic filter elements shrug off larger dirt particles as flow varies.
- 5 micron elements as standard, option 40 micron.
- No tools required for dismantling or cleaning element - routine servicing without removing from line.

Options:

P3E - FA [ ] [ ] [ ] [ ]

G1/4	12
G3/8	13
G1/2	14
G3/4	16
Without Port blocks	00

Transparent Bowl Manual Drain	B	High Flow Metal Bowl Auto Drain	M
Transparent Bowl Semi-Auto Drain	C	Compact Metal Bowl Manual Drain	T
Transparent Bowl Auto Drain	D	Compact Metal Bowl Semi Auto Drain	V
High Flow Metal Bowl Manual Drain	K	Compact Metal Bowl Auto Drain	W
High Flow Metal Bowl Semi Auto Drain	L		

5 Micron Element Std	E
5 Micron Element	G

N

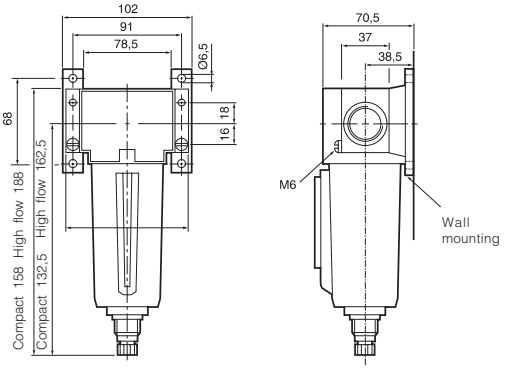
Note: For customised combinations consult Technical Sales Department.

Technical information

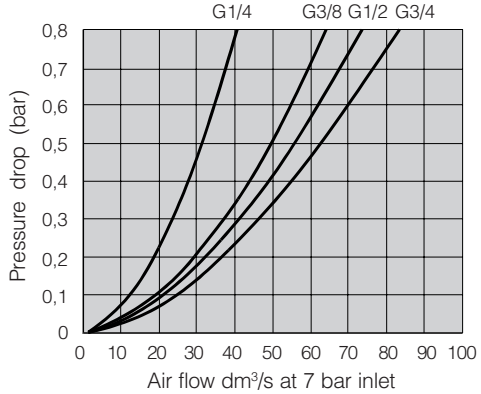
Filter element grade:	Standard 5 micron	
	Option 40 micron	
Flow	See flow graphs below	
Pressure range:	10 bar max Nylon bowl	
	17 bar max Metal bowl	
Temperature range:	-10°C to +50°C Nylon bowl	
	-10°C to +75°C Metal bowl	
Weight (g) without port blocks	Transparent Bowl	560
	Compact Metal Bowl	832
	High flow Metal Bowl	946

For Repair Kits and Spares see pages 62 and 63.
For Accessories and Port Blocks see page 51.

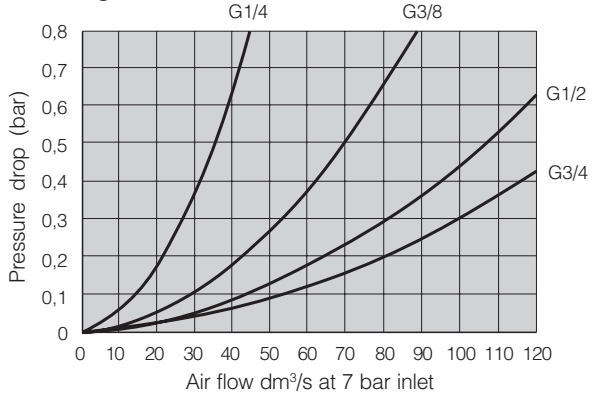
Dimensions (mm)



Flow characteristics: Compact bowl

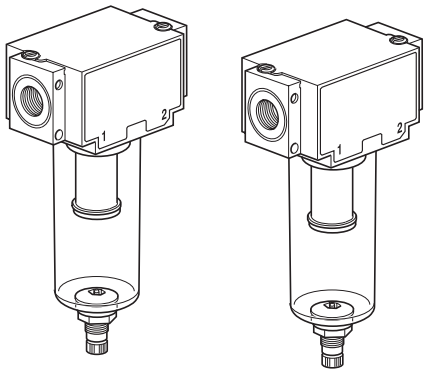


Flow characteristics: High flow bowl



Modular Maxi FRLs

Coalescing filters and Adsorbers



Coalescing filters

- Removes oil and water aerosols.
- Maximum oil carry over 0.02 mg/m^3
- Metal bowls with integral convex sight glasses as standard, option of manual or auto drain
- Sight glass can be located in 90^O increments.

Adsorbers

- Removes hydro-carbon vapours.
- Removes oil vapour carry-over.
- Activated carbon element.
- For breathable air applications.
- Maximum oil carry over 0.005 mg/m^3

Options:

P3E - FA [ ] [ ] [ ] [C] [N]

G1/4	12
G3/8	13
G1/2	14
G3/4	16
Without port blocks	00

Transparent Bowl Manual Drain	B	High Flow Metal Bowl Auto Drain	M
Transparent Bowl Semi-Auto Drain	C	Compact Metal Bowl Manual Drain	T
Transparent Bowl Auto Drain	D	Compact Metal Bowl Semi Auto Drain	V
High Flow Metal Bowl Manual Drain	K	Compact Metal Bowl Auto Drain	W
High Flow Metal Bowl Semi Auto Drain	L		

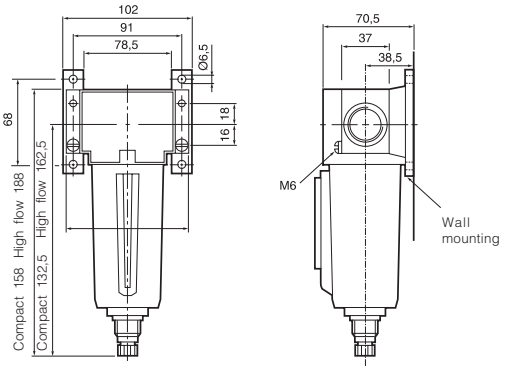
Coalescing	C
Adsorber	A

Note:
For customised combinations consult Technical Sales Department. Adsorber filters only available with K, T or B bowl options

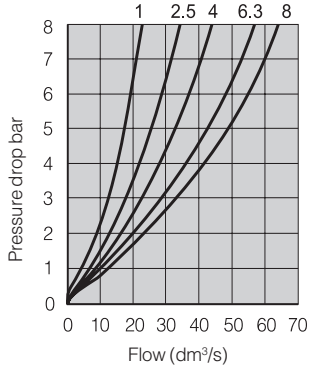
Technical information

Maximum recommended flow	Compact 420 l/min - 7 dm^3/s at 6 bar
	High flow 720 l/min - 12 dm^3/s at 6 bar @0.7 bar pressure drop
Temperature range:	0^{O}C to +50^{O}C max.
Pressure range:	10 bar max Transparent bowl
	17 bar max Metal bowl
Weight (g) without port blocks	560g Transparent bowl
	832g Compact metal bowl
	946g High flow metal bowl
Efficiency	99.97% D.O.P. USA Federal standard 2098
Maximum particle passed	0,3 microns

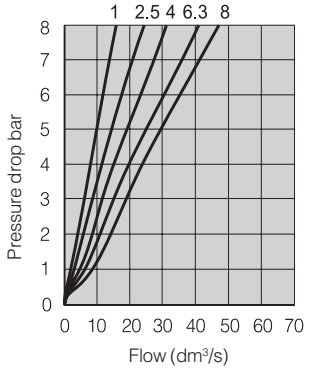
Dimensions (mm)



Flow characteristics:
Element dry - inlet 10 bar

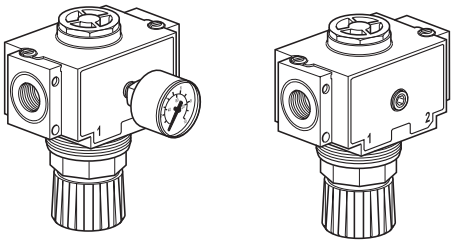


Flow characteristics:
Element fully saturated - inlet 10 bar

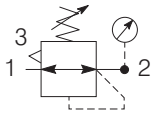


For Repair Kits and Spares see page 62 and 63.
For Accessories and Port Blocks see page 51.

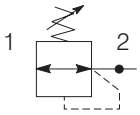
Regulators



Symbols



Self bleed regulator with gauge



Non bleed regulator

- One balanced, self relieving, diagram operated unit for all flows and combinations - optional non-relieving unit available.
- Simple push to lock non-rising adjustment knob with low operating torque; easily tamperproofed.
- Panel mounting ring available.
- Excess secondary pressure relieves at low differential.
- Four secondary pressure ranges available, with colour coded adjustment knobs.
  16 bar Orange, 8 bar Black, 4 bar Grey

Options:

P3E - RA [ ] [ ] [ ] [ ] **N**

G1/4	**12**
G3/8	**13**
G1/2	**14**
G3/4	**16**
Without Port blocks	**00**

Relieving	**B**
Non-relieving	**N**

0,4 - 8 bar + Gauge	**G**
0,4 - 8 bar No Gauge	**N**
0,2 - 4 bar + Gauge	**M**
0,2 - 4 bar No Gauge	**L**
0,4 - 16 bar + Gauge	**J**
0,4 - 16 bar No Gauge	**H**

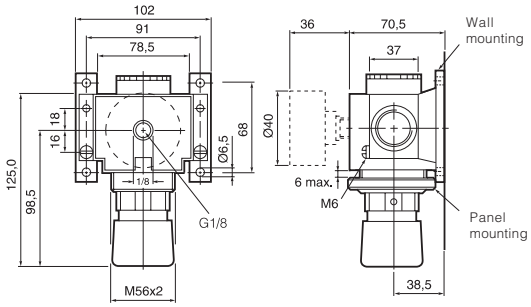
Note: For customised combinations consult Technical Sales Department.

Technical information

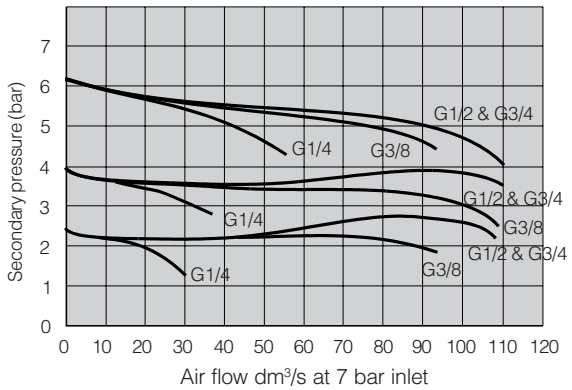
Gauge port size	G1/8	
Maximum inlet pressure	20 bar max	
Flow	See performance characteristics	
Secondary pressure range	Low	0,2 to 4 bar max
	Medium	0,4 to 8 bar max
	High	0,4 to 16 bar max
Temperature range	-10°C to +75°C	
Weight (g) without port blocks	756	

For Accessories and Port Blocks see page 51.
For Repair Kits and Spares see pages 62 and 63.
For Gauges see page 61.

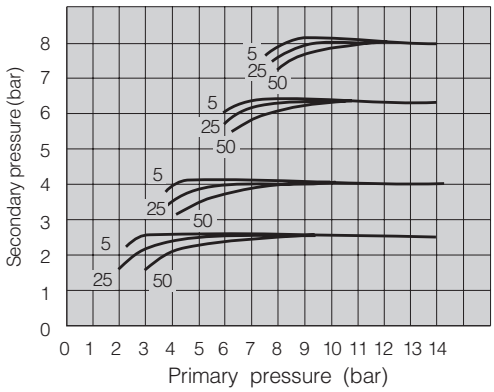
Dimensions (mm)



Flow characteristics

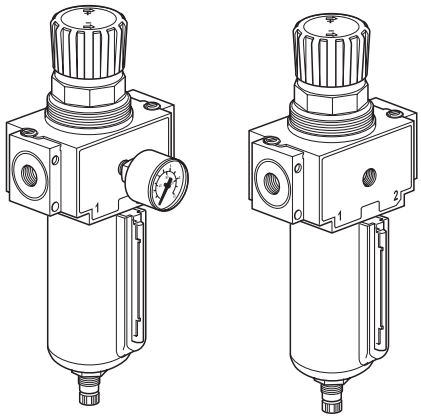


Regulation characteristics: (G1/2)



Modular Maxi FRLs

Filter/Regulators



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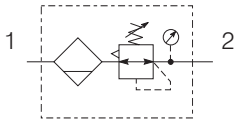


- Choice of metal bowl with convex sight glass or transparent nylon bowl.
- Elastomatic filter elements shrug off larger dirt particles as flow varies.
- 5 micron element as standard, option 40 micron.
- One balanced, self relieving, diagram operated unit for all flows and combinations - optional non-relieving unit available.
- Simple push to lock non-rising adjustment knob with low operating torque; easily tamperproofed.
- Four secondary pressure ranges available, with colour coded adjustment knobs.
  16 bar Orange, 8 bar Black, 4 bar Grey

Options:

P3E - EA [ ] [ ] [ ] [ ] [ ] [ ] **N**

G1/4	12
G3/8	13
G1/2	14
G3/4	16
Without Port blocks	00

Transparent Bowl Manual Drain	B
Transparent Bowl Semi-Auto Drain	C
Transparent Bowl Auto Drain	D
High Flow Metal Bowl Manual Drain	K
High Flow Metal Bowl Semi Auto Drain	L

High Flow Metal Bowl Auto Drain	M
Compact Metal Bowl Manual Drain	T
Compact Metal Bowl Semi Auto Drain	V
Compact Metal Bowl Auto Drain	W

Relieving	B
Non-Relieving	N

5 Micron Element Std	E
40 Micron Element	G

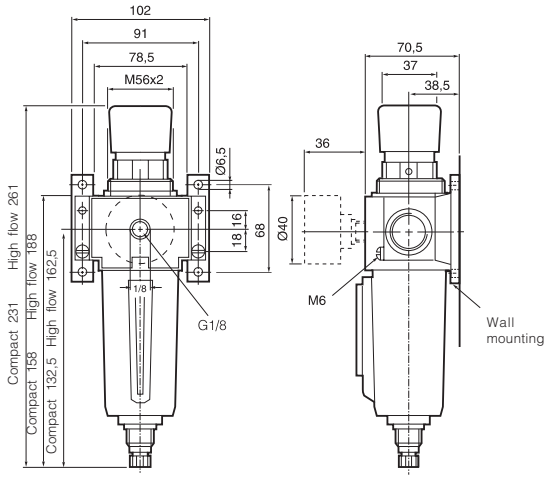
0,4 - 8 bar + Gauge	G
0,4 - 8 bar No Gauge	N
0,2 - 4 bar + Gauge	M
0,2 - 4 bar No Gauge	L
0,4 - 16 bar + Gauge	J
0,4 - 16 bar No Gauge	H

Note: For customised combinations consult Technical Sales Department.

Technical information

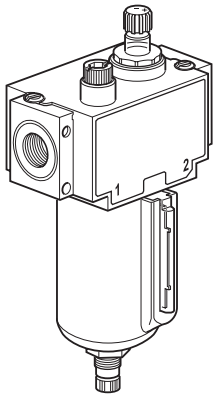
Gauge port size	G1/8	
Filter element grade:	Standard 5 micron	
	Option 40 micron	
Flow	See characteristics of Regulators page 43	
Max inlet pressure:	10 bar max Nylon bowl	
	17 bar max Metal bowl	
Secondary pressure range	Low	0,2 to 4 bar max
	Medium	0,4 to 8 bar max
	High	0,4 to 16 bar max
Temperature range:	-10°C to +50°C Nylon bowl	
	-10°C to +75°C Metal bowl	
Weight (g) without port blocks	Transparent Bowl	808
	Compact Metal Bowl	1154
	High flow Metal Bowl	1196

Dimensions (mm)

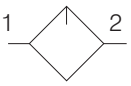


For Accessories and Port Blocks see page 51.
For Repair Kits and Spares see pages 62 and 63.
For Gauges see page 61.

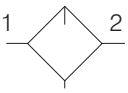
Lubricators



Symbols



Lubricator



Lubricator with drain

- Choice of metal bowls with integral sight glasses or transparent nylon bowls.
- Sight glass can be located in 90^0 increments.
- Constant density lubrication with fingertip adjustment.
- Low flow oil pick up capability.
- 360^0 drip rate sight glass gives all round visibility, contained in separately serviceable cartridge.
- Internal shut off valve, operated by the filler plug allows oil filling to be carried out without shutting off air supply.

Options:

P	3	E	-	L	A				F	N

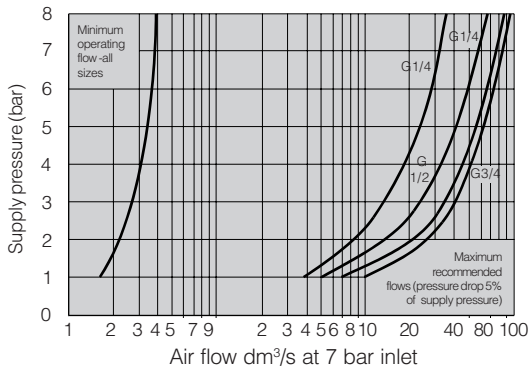
	Thread
12	G1/4
13	G3/8
14	G1/2
16	G3/4
00	Without

	Bowl / drain
A	Transparent Bowl Without Drain
B	Transparent Bowl Manual Drain
K	Metal Bowl Manual Drain
T	Compact Metal Bowl Manual Drain

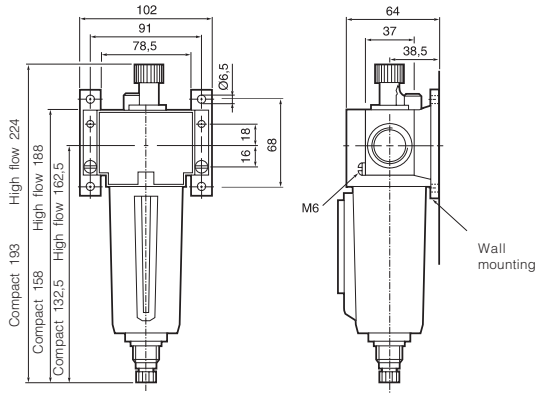
Technical information

Pressure range:	10 bar max Nylon bowl	
	17 bar max Metal bowl	
Temperature range:	-10°C to +50°C Nylon bowl	
	-10°C to +75°C Metal bowl	
Flow	See performance characteristics	
Weight (g) without port blocks	Transparent Bowl	588
	Compact Metal Bowl	860
	High flow Metal Bowl	976
Minimum flow for oil pick up	See graph	
Bowl capacity	Compact 100cm³.	
	High capacity 200cm³.	
Recommended lubricants	See page 63	

Flow characteristics



Dimensions (mm)

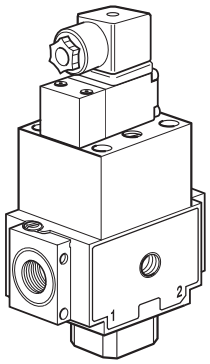


For Accessories and Port Blocks see page 51.

For Repair Kits and Spares see page 62 and 63.

Modular Maxi FRLs

Combined Soft Start and Dump Valve



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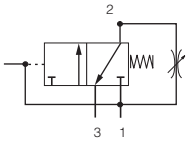


- Combines the functions of Soft Start and Dump Valves
- Controlled induction of pressure
- Fully adjustable bleed rate
- Choice of 15mm or CNOMO solenoids
- High flow G1/2 exhaust
- Integral gauge ports

Options:

P	3	E	-	T	A					N			

	Thread
13	G3/8
14	G1/2
16	G3/4
00	Without

	Piloting / gauge
S	Solenoid, without gauge
R	Solenoid, with gauge
P	Air pilot, without gauge
Q	Air pilot, with gauge

	Pilot options
G	15 mm solenoid
C	CNOMO solenoid
P	Pilot port threaded G1/8 for air pilot
Q	Pilot port Push-in for air pilot version

For alternative solenoids see page 16.

	Voltage
00	Without Solenoid
CN	24 VDC

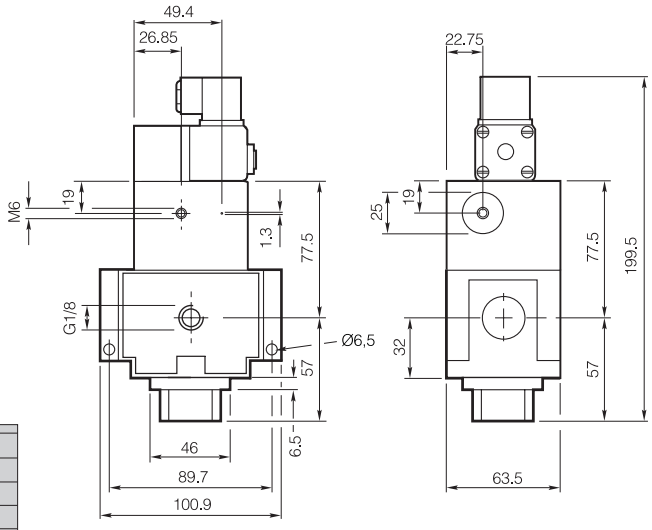
	Solenoid
0	None
2	DC

Technical information

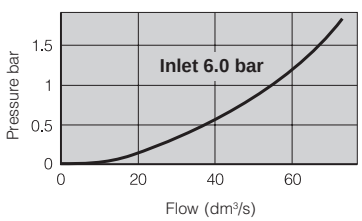
Max. inlet pressure	10 bar max.
Temperature range	-10°C +50°C

Note: For materials see page 48.
For Gauges see page 61.

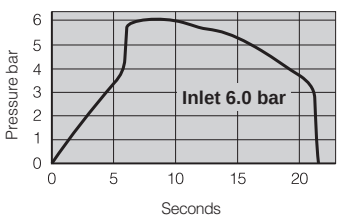
Dimensions



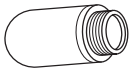
Flow characteristics:
Inlet - Secondary



Function:
Secondary exhaust



Muffler included with each product.

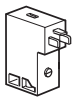


Home

Solenoids for Soft Start and Dump Valves

Solenoids for Dump Valves (15mm solenoid)

Supplied with cable plug and non-locking flush manual override

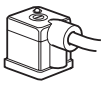


Voltage	Order code
12VDC	**P2E-KV32BN**
24VDC	**P2E-KV32CN**
12V 50Hz/60Hz	**P2E-KV34BN**
24V 50Hz	**P2E-KV31CN**
115V 50Hz/120VAC 60Hz	**P2E-KV31FN**
230V 50Hz/240VAC 60Hz	**P2E-KV31JN**

Cable plugs 15 mm (8 mm pin spacing) IP 65

Description	Order code
Large headed screw for inaccessible or recess position	
Standard to be wired universal	**P8C-C**
To be wired LED+protection 24 VDC	**P8C-C26C**

Description	Order code
With standard screw	
Standard to be wired universal	**P8C-D**
To be wired LED+protection 24 VDC	**P8C-D26C**

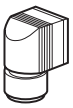


Description	Order code
With cable and standard screw	
Standard with 2 m cable	**P8L-C2**
Standard with 5 m cable	**P8L-C5**
LED+protection 24 VAC/DC, 2 m	**P8L-C226C**
LED+protection 24 VAC/DC, 5 m	**P8L-C526C**

Solenoids for Dump Valves (CNOMO solenoid)

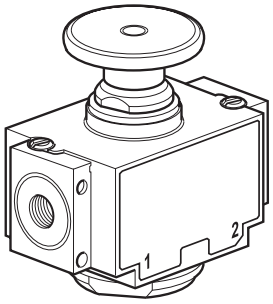
Supplied with cable plug and non-locking override

Voltage CNOMO-Solenoids	Order code
24VDC (48V 50Hz)	**P2G-PV32C1**
24V/50Hz/60Hz (11VDC)	**P2G-PV34C1**
110V/50Hz/60Hz (50VDC)	**P2G-PV34E1**
230V/50Hz/60Hz (120VDC)	**P2G-PV34J1**
12V/50Hz/60Hz (6VDC)	**P2G-PV34B1**



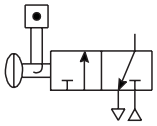
Description Cable plug, for CNOMO solenoid	Order code
24V, LED+Diode	**9125 9980-04**
24V AC/DC, LED+VDR	**9125 9980-06**
110V AC/DC, LED+VDR	**9125 9980-08**
240V AC/DC, LED+VDR	**9125 9980-10**
Black	**451B**

Manually Operated Dump Valves



- Shuts off upstream and dumps downstream pressure.
- Air latching or 2 position versions.
- Choice of red or black knobs.
- Ventral G1/4 exhaust port.
- Padlockable version.

Symbol



BISTABLE version
The dumping of downstream pressure is manually actuated by depressing the knob.
To reset, both effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE version . 2 exhaust dump functions
Manually, by maintaining the button thrust down during time required to dump the downstream pressure.
Automatically, when the upstream pressure falls below the set pressure threshold.
To reset, effective upstream pressure and a manual lift of the knob is required.

MONOSTABLE dump valves are an important element in machine safety considerations. After a unexpected upstream pressure failure, e.g compressor break down), system pressure reset will be only be obtained by lifting the knob combined with having an effective upstream pressure.

Options:

P	3	E	-	D	A				N

	Thread
13	G3/8
14	G1/2
16	G3/4
00	Without

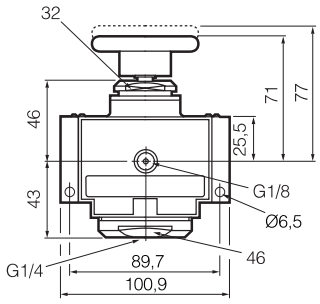
	Knob / Function
B	Black 2 Position
R	Red 2 Position
N	Red Latching
M	Black Latching

	Locking Clip
N	Without Locking Clip
L	With Locking Clip

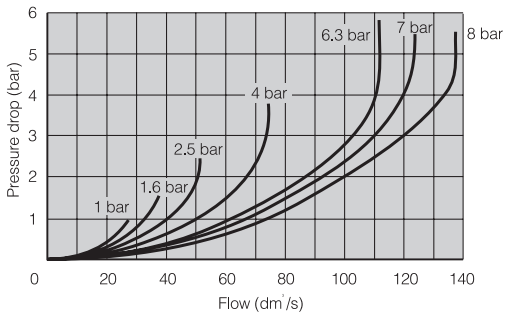
Technical information

Max. inlet pressure	20 bar max.
Operating pressure	7 bar max
Temperature range	-10°C +75°C
Flow @ 6 bar	
Through valve	to exhaust
3300 l/min - 55 dm³/s	2700 l/min - 45 dm³/s
Weight (g)	720g

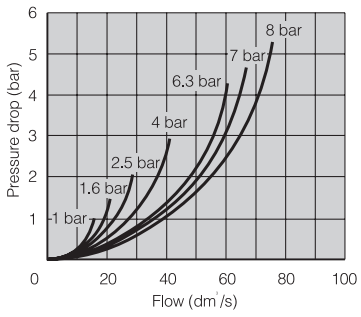
Dimensions



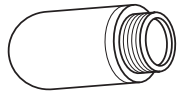
Flow characteristics: Inlet to secondary



Flow characteristics: Secondary to exhaust

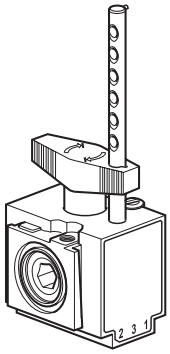


Muffler included with each product.

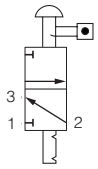


Modular Maxi FRLs

Maxi Modular Ball Valve



Symbol



- Positive bubble tight shut-off.
- Upstream and downstream versions.
- Key lockable versions.
- Padlockable version.
- Ventral G3/8 exhaust port.

Connection	Pressure max, bar	Actuation	Note	Weight Kg	Order code	Flow @ 6 bar l/min	Flow @ 6 bar dm³/s
Upstream	10	Hand	Standard	0,470	**P3E-VA00A0N**	4000	66.7
Downstream	10	Hand	Standard	0,470	**P3E-VA00B0N**	4000	66.7
Upstream	10	Hand	Key Locking	0,670	**P3E-VA00K0N**	4000	66.7
Upstream	10	Hand	3 Padlock Facility	0,532	**P3E-VA00P0N**	4000	66.7
Downstream	10	Hand	3 Padlock Facility	0,532	**P3E-VA00R0N**	4000	66.7
Upstream	10	Hand	6 Padlock Facility	0,542	**P3E-VA00Q0N**	4000	66.7
Downstream	10	Hand	6 Padlock Facility	0,542	**P3E-VA00S0N**	4000	66.7

*** Note!** Modular Ball valves have an integral Body Connector on one side and a slot to accept a Port Block or Body Connector on the other.
Note! Cannot be used separately.

Materials

Filter

Body	Zinc
Fixing Screws	Plated Steel
Bowl (metal)	Zinc
Bowl (transparent)	Polyamide
Sight Glass	Polyamide
Louvre	Acetal
Element	Nylon
Manual Drain	Acetal
Semi-Auto Drain	Plastic / Brass
Auto-Drain	Acetal / Brass
Springs	Stainless Steel
Seals	Nitrile

Regulator

Body	Zinc
Fixing Screws	Plated Steel
Control Knob	Acetal
Adjusting Screw	Plated Steel
Spring Rest (upper)	Brass
Spring Rest (lower)	Steel / Brass
Spring	Steel
Diaphragm	Nitrile / Nylon
Valve Stem	Brass
Valve Seat	Nitrile
Bottom Cap	Nylon 6 glass filled
Springs	Stainless Steel
Seals	Nitrile

Lubricator

Body	Zinc
Fixing Screws	Plated Steel
Bowl (metal)	Zinc
Bowl (transparent)	Polyamide
Sight Glass	Polyamide
Knob	Acetal
Venturi Valve	Acetal
Transfer Tube	Nylon
Tube Retainer	Brass
Springs	Stainless Steel
Seals	Nitrile
Fill Plug	Plastic

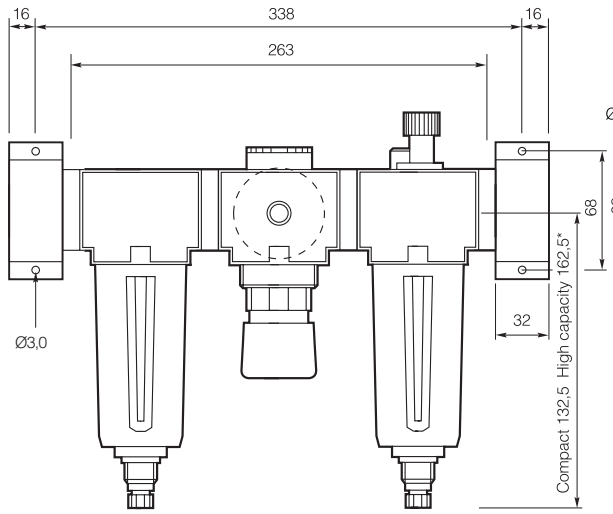
Accessory Products

Bodies	Zinc
Housings	Aluminium
Fixing Screws	Plated Steel
Knobs	Acetal
Valve Stems	Brass
SSV Main Spring	Plated Steel
Springs	Stainless Steel
Seals	Nitrile
Port Connectors	Zinc
Body Connectors	Zinc

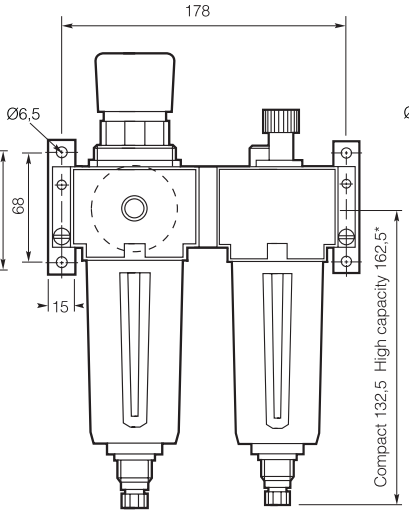
Dimensions

The modular system ensures constant mounting centres; assemblies are fixed to the special wall brackets by a single fixing screw.

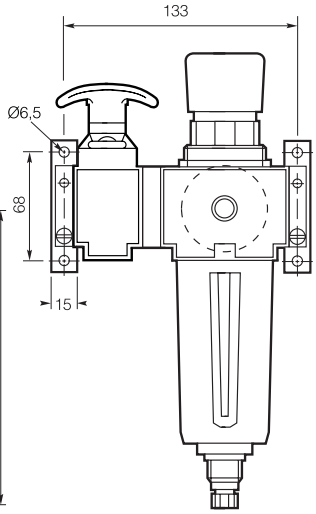
Filter, Regulator, Lubricator



Filter/Regulator, Lubricator

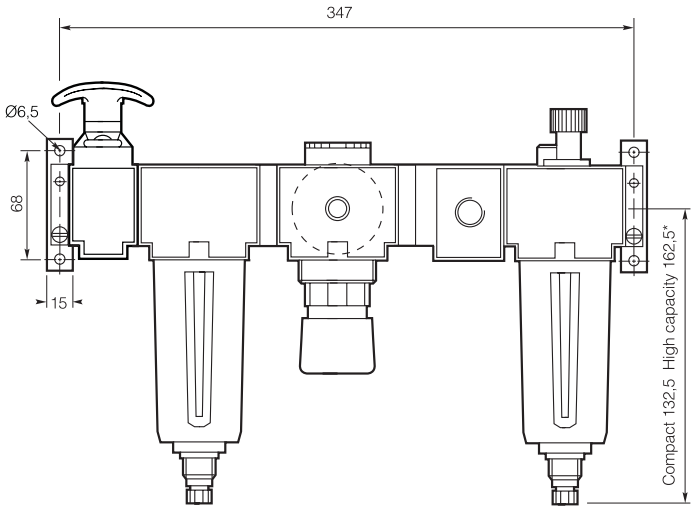


Ball Valve + Filter/Regulator

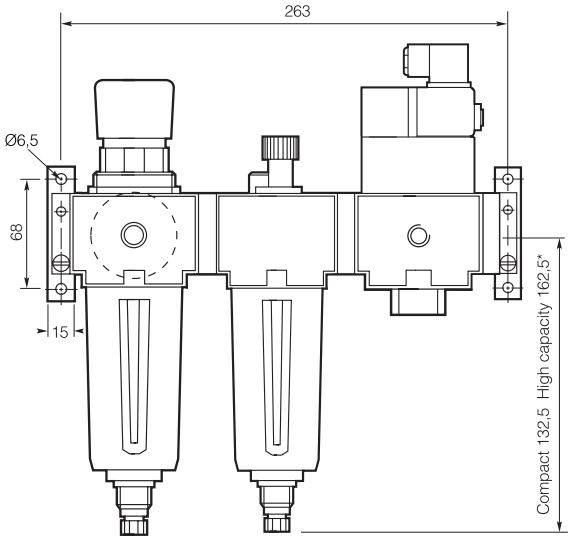


* Transparent bowl option dimensions identical to high capacity version.

Ball valve, Filter, Regulator, Manifold, Lubricator.



Filter/Regulator, Lubricator, Combined Soft start and Dump valve



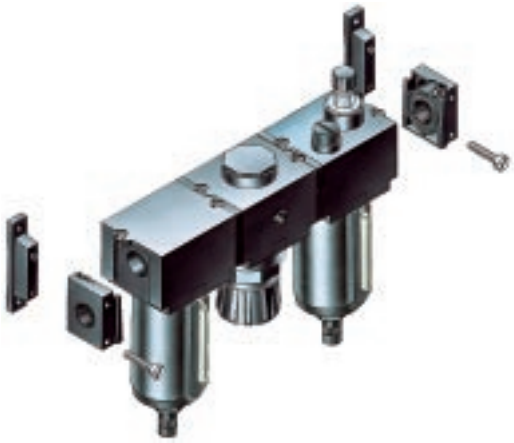
All dimensions in (mm).

Mounting assemblies

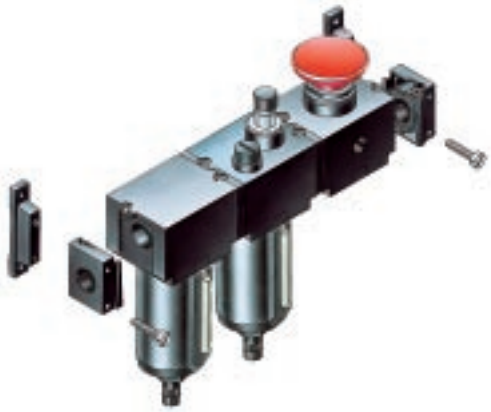
Assembly containing a regulator or filter regulator

Assembly without regulator or filter regulator

Wall brackets mounted at the ends of an assembly

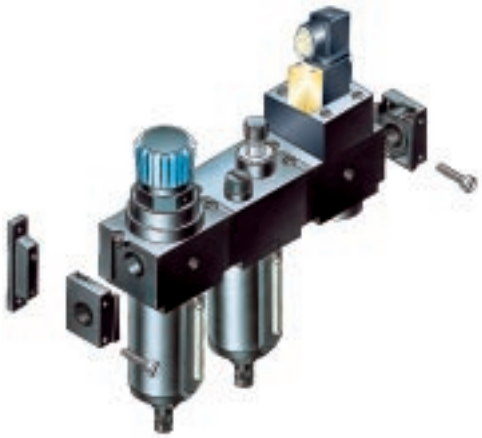


Wall brackets mounted at the ends of an assembly

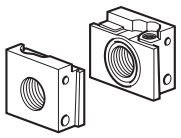
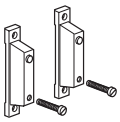
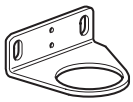
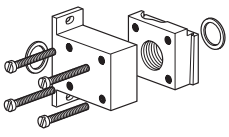


Neck mounting bracket on Filter/Regulator

Popular combination with wall mounting brackets

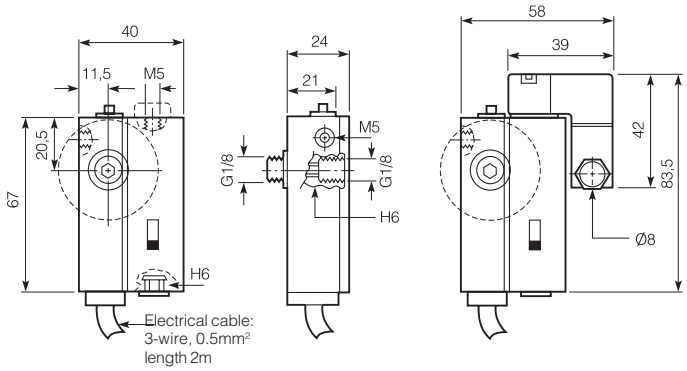


Accessories

Description	Connection	Weight Kg	Order code	
Port connector kits (2 port blocks + 2 seals)	G1/4	0,144	**P3E-KA12CPN**	
	G3/8	0,144	**P3E-KA13CPN**	
	G1/2	0,134	**P3E-KA14CPN**	
	G3/4	0,124	**P3E-KA16CPN**	
Body connector	Without port	0,156	**P3E-KA00CBN**	
	With G1/4 ventral port	0,156	**P3E-KA12CAN**	
Wall mounting kit (2 brackets + 2 screws)		0,140	**P3E-KA00MWN**	
Regulator angle bracket kit (Angle bracket + mounting ring)		0,800	**P3E-KA00MSN**	
Panel mounting ring only		0,400	**P3E-KA00MMN**	
Regulator Tamperproof kit (Kit contains 5 pieces)		0,010	**P3E-KA00ATN**	
Modular manifold block* (Includes port plugs)	1 x G1/8 1 x G1/4 2 x G1/2	0,340	**P3E-MA1V**	
Rear entry connector kit	G1/2	0,240	**P3E-KA14CRN**	

***Note:** Modular manifold blocks have an integral Body Connector on one side and a slot to accept a Port Block or Body Connector on the other.

Adjustable Reset Pressure Switches



The Adjustable Reset Pressure Switch is designed to provide a safeguard for pneumatic systems or machines, which require a minimum operating pressure to operate effectively. When the correct pressure is present the switch provides a constant output signal which should be used to operate a control valve or device to enable the system to perform its normal function. If the operating pressure falls below the set level, the constant output signal is cancelled, allowing the control valve or device to stop the system in a safe manner.

Once the pressure rises above the preset threshold, unlike a conventional pressure switch, the Adjustable Reset Pressure Switch must be reset before it can once again transmit the output signal authorising operation. The reset signal may be manual, pneumatic or electrical.
Versions are available to provide either pneumatic or electrical output signals or both.

Pneumatic characteristics

Pressure range	:	1,5 to 8 bar max
Temperature range	:	-10⁰ to +55⁰C
Adjustment range	:	1,5 to 6 bar
Precision	:	±0,2 bar

Electrical characteristics

Electrical output	:	On/Off relay
5A / 250V A.C.		
5W / 48V D.C.		
Electrical reset = 1W		

Part nos. Switches

Part no.	Description
P3E-KA11SAN	Pneumatic output, manual reset.
P3E-KA11SBN	Pneumatic output, reset.
P3E-KA11SCN	Electrical and pneumatic outputs, manual resets.
P3E-KA11SDN	Electrical and pneumatic outputs, pneumatic reset.
P3E-KA11SEN	Electrical and pneumatic outputs, electrical reset

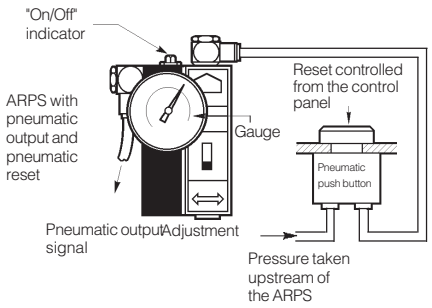
Note: Micro-solenoid not included.
Micro-solenoid valve must be ordered separately.

Micro-Solenoid Valve (Non-locking override) for pressure switch

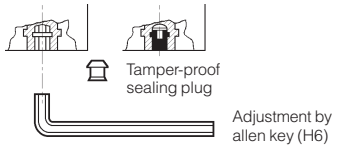
Part no.	Description
P2E-LV32B1	12V. D.C.
P2E-LV32C1	24V. D.C.
P2E-LV32D1	48V. D.C.
P2E-LV34B1	12V. 50/60Hz
P2E-LV31C1	24V. 50Hz
P2E-LV33C1	24V. 60Hz
P2E-LV34D1	48 V. 50/60Hz
P2E-LV31F1	115V. 50Hz / 120V. 60Hz
P2E-LV31J1	230V. 50Hz / 240V. 60Hz

See cable plugs Page 16

Pneumatic remote controlled reset

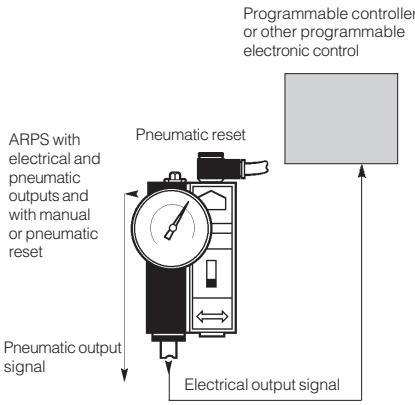


Adjusting the cut-off pressure

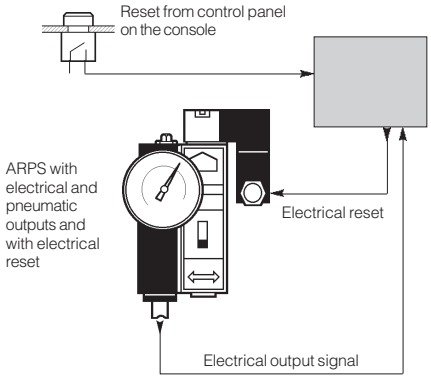


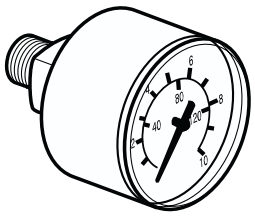
On all ARPS, the tripping pressure is adjusted by an allen key. Tamper proof sealing plug prevents unauthorised adjustment.

Direct pressure return



Pressure return through programmable control





- Wide range of pressure gauges
- Rear entry and bottom entry options
- Back pressure gauge for reclassifier-silencers
- Round or square panel mounted gauges
- Integrated thread sealing ring

Pressure gauges

Symbol	Description	Pressure range, bar	Port size	Dial mm	Weight Kg	Order code
	Rear entry	0-2,	G1/8	40	0,062	**P3D-KAB1AYN**
		0-4	G1/8	40	0,062	**P3D-KAB1ALN**
		0-10	G1/8	40	0,062	**P3D-KAB1ANN**
		0-20	G1/8	40	0,062	**P3D-KAB1AHN**
	Rear Entry	0-4	G1/8	50	0,068	**P6G-ERB1040**
		0-11	G1/8	50	0,068	**P6G-ERB1110**
		0-14	G1/8	50	0,068	**P6G-ERB1140**
	Rear entry	0-4	G1/4	50	0,074	**P6G-ERB2040**
		0-14	G1/4	50	0,074	**P6G-ERB2140**
		0-20	G1/4	50	0,074	**P6G-ERB2200**
	Bottom entry	0-11	G1/8	50	0,065	**P6G-EBB1110**
	Panel Mounted - Rear Entry	0-14	G1/8	50	0,066	**P6G-EPA1140**
		0-11	G1/8	63	0,080	**P6G-FPA1V10**
		0-10	G1/4	85	0,180	**P6G-HPA1100**
	Square - Panel Mounted - Rear Entry	0-10	G1/8	50x50	0,100	**P6G-RPA1100**
		0-4	G1/8	75x75	0,200	**P6G-TPA1040**
		0-10	G1/8	75x75	0,190	**P6G-TPA1100**
	Rear Entry - BackPressure (Reclassifiers)	0-2	G1/8	40	0,062	**P6G-DEB1020**

Panel mounting gauges

Panel mounting gauges have a threaded body and are supplied complete with a plastic mounting collar.

Filter Spare Kits Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Drain Kits				
Manual drain kit	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**
Semi-auto drain kit	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**
Auto drain kit			**P3E-KA00DDN**	**P3E-KA00DDN**
Bowl Kits **Poly bowl**				
Poly bowl with manual drain	**P3A-KA00BBA**	**P3D-KA00BBA**	**P3E-KA00BBA**	
Poly bowl with semi-auto drain	**P3A-KA00BCA**	**P3D-KA00BCA**	**P3E-KA00BCA**	
Poly bowl with auto drain			**P3E-KA00BDA**	
Metal bowl				
Metal bowl with manual drain	**P3A-KA00BPA**	**P3D-KA00BKA**	**P3E-KA00BKA**	
Metal bowl with semi-auto drain	**P3A-KA00BQA**	**P3D-KA00BLA**	**P3E-KA00BLA**	
Metal bowl with auto drain			**P3E-KA00BMA**	
Compact metal bowl with manual drain			**P3E-KA00BTA**	
Compact metal bowl with semi-auto drain			**P3E-KA00BVA**	
Compact metal bowl with auto drain			**P3E-KA00BWA**	
Filter Element Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EEN**	**P3E-KA00EEN**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ERN**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EGN**	**P3E-KA00EGN**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00ESN**	
Coalescing element	**P3A-KA00ECN**	**P3D-KA00ECN**	**P3E-KA00ECN**	**P3NKA00ESC**
Coalescing element (compact bowl)			**P3E-KA00EPN**	
Adsorber element	**P3A-KA00EAN**	**P3D-KA00EAN**	**P3E-KA00EAN**	**P3NKA00ESA**
Adsorber element (compact bowl)			**P3E-KA00ENN**	
Seal Kits				
Poly bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RZN**	
Metal bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RWN**	
Connector O ring (10 off)	**P3A-KA00CYN**	**P3D-KA00CYN**	**P3E-KA00CYN**	
Regulator Spare Kits				
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00RRN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RNN**	**P3NKA00RN**
Metal panel mounting ring	**P3A-KA00MMN**	**P3A-KA00MMN**	**P3E-KA00MMN**	
Plastic panel mounting ring (5 off)	**P3A-KA00MPN**	**P3A-KA00MPN**		
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	

Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Filter/Regulator Spare Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EFA**	**P3E-KA00EFA**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ETA**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EHA**	**P3E-KA00EHA**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00EVA**	
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00REN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RGN**	**P3NKA00RN**
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	
For Drain Kits - see Filters on page 62				
For Bowl Kits - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				
Lubricator Spare Kits				
Plastic bowl without drain	**P3A-KA00BAA**	**P3D-KA00BAA**	**P3E-KA00BAA**	
For Manual Drain Kits - see Filters on page 62				
For Bowl Kits with Manual Drain - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				

Lubrication of airlines

Satisfactory operation of airline equipment and effective lubrication depends upon the proper selection of lubrication oil. Oils having a viscosity below ISO3448 Grade 10 to 22 will satisfy most high-speed pneumatic tools and other light duty requirements.

Heavy duty tools and pneumatic valves and cylinders will normally require oils in the viscosity ISO3448 Grade 32 to 68.

Only Paraffinic based oils can be used and the following recommendations are given as a general guide to types of oil that are suitable for use with Parker airline equipment.

	High speed tools and systems		Air Cylinders and valves	
Oil Company	**ISO Grade**	**Grade**	**ISO Grade**	**Grade**
Century Oils	Century P - 198	15	P.W.L.A	32
Alexander Duckham	Zurcon 2	15	Zurcon 4 32	
Gulf	Harmony 38AW	15	Harmony 43AW	32
Shell (UK) Oil	Tellus 22	22	Tellus 37	37
Burmah Castrol	Hyspin AWS15	15	Hyspin AWS32	32
Edgar Vaughan	KSO 5L	10	Hydrodrive HP100	32
Esso Petroleum	NUTO 1115	15	NUTO H32	32
B.P.	HLP 22	22	HLP 32	32
Mobile Oil Company	Velocite No.6	10	DTE Oil - Light	32
Mobile			VPI-A	32
Silkolene	Silkair GP22	22	Derwent 32	32
Silkolene	Dove 15	15		

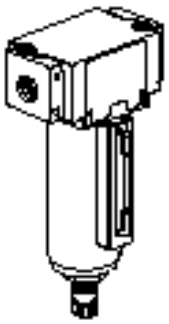
Most Parker Pneumatic valves and cylinders are designed for use in non-lube operation. However airline lubrication will increase the service life.

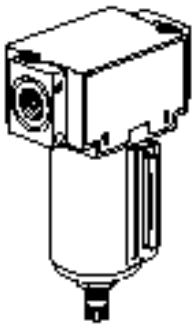
Note! If oil lubrication is used, it must be maintained for the service life of the product.

Some specialised lubricants, particular synthetic reclaimed oils and low temperature additives, may contain compounds which are incompatible with certain materials, internal 'O' rings and seals. They may also attack plastic piping or the transparent bowls of the airline lubricator. Attention is drawn to BS6005 (Specification for moulded transparent polycarbonate bowls used in compressed air filters and lubricators).

Do not use oils with additives, compounds oils containing solvents, graphite, detergents or synthetic oils.

Service and Replacement Parts





P3A, P3D & P3E Series Modular Filters

Filter Elements

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
5 micron element (standard)	P3A-KA00EEN	P3D-KA00EEN	P3E-KA00EEN
5 micron compact element	Not used	Not used	P3E-KA00ERN
40 micron element	P3A-KA00EGN	P3D-KA00EGN	P3E-KA00EGN
40 micron compact element	Not used	Not used	P3E-KA00ESN
Coalescing element	P3A-KA00ECN	P3D-KA00ECN	P3E-KA00ECN
Coalescing compact element	Not used	Not used	P3E-KA00EPN
Adsorber element	P3A-KA00EAN	P3D-KA00EAN	P3E-KA00EAN
Adsorber compact element	Not used	Not used	P3E-KA00ENN

Replacement Bowl Kits (Metal)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Metal bowl with manual drain	P3A-KA00BPA	P3D-KA00BKA	P3E-KA00BKA
Metal bowl with semi-auto drain	P3A-KA00BQA	P3D-KA00BLA	P3E-KA00BLA
Metal bowl with auto drain			P3E-KA00BMA
Compact bowl/manual drain	Not used	Not used	P3E-KA00BTA
Compact bowl/semi-auto drain	Not used	Not used	P3E-KA00BVA
Compact bowl/auto drain	Not used	Not used	P3E-KA00BWA

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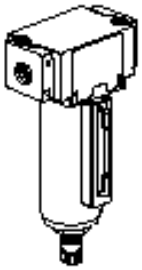
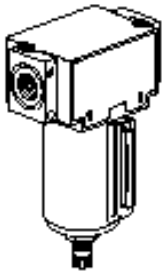
Service and Replacement Parts

P3A, P3D & P3E Series Modular Filters

Replacement Bowl Kits (Polyamide)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Polyamide bowl with manual drain	P3A-KA00BBA	P3D-KA00BBA	P3E-KA00BBA
Polyamide bowl with semi-auto drain	P3A-KA00BCA	P3D-KA00BCA	P3E-KA00BCA
Polyamide bowl with auto drain			P3E-KA00BDA

Bowl Seal Kits (Contains 10 replacement Seals)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Metal bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00RWN
Polyamide bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00RZN

Drain Kits

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Manual drain	P3E-KA00DBN	P3E-KA00DBN	P3E-KA00DBN
Semi-Auto Drain	P3A-KA00DCN	P3A-KA00DCN	P3A-KA00DCN
Auto-Drain	Available 2001	Available 2001	P3E-KA00DDN

Seal Kits

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Replacement seals	1539R	2539R	4539R

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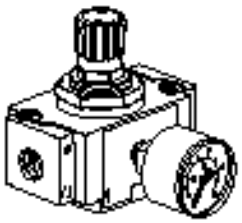
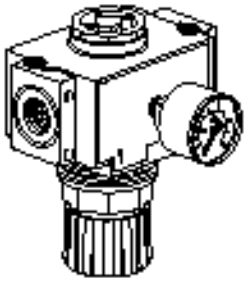
Service and Replacement Parts

P3A, P3D & P3E Series Modular Pressure Regulators

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Repair Kit, Self-bleed	Non-repairable	P3D-KA00RRN	P3E-KA00RRN
Repair Kit, Non-bleed	Non-repairable	P3D-KA00RNN	P3E-KA00RRN
Panel Mounting Ring (metal)	P3A-KA00MMN	P3A-KA00MMN	P3E-KA00MMN
Panel Mounting Ring (plastic)	P3A-KA00MPN	P3A-KA00MPN	Not available
Tamperproof Kit (5 circlips)	P3A-KA00ATN	P3A-KA00ATN	P3E-KA00ATN
Gauge Port Plug (10 plugs)	P3D-KAB1APN	P3D-KAB1APN	P3D-KAB1APN

Pressure Gauges

Pressure Range	Gauge Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
0 – 10 bar (standard)	P3D-KAB1ANN	P3D-KAB1ANN	P3D-KAB1ANN
0 – 2 bar	P3D-KAB1AYN	P3D-KA001AYN	Not required
0 – 4 bar	P3D-KAB1ALN	P3D-KAB1ALN	P3D-KAB1ALN
0 – 20 bar	Not required	P3D-KAB1AHN	P3D-KAB1AHN

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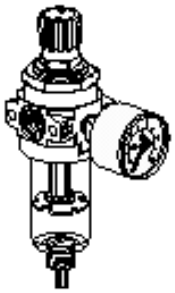
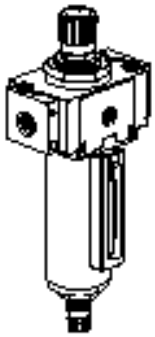
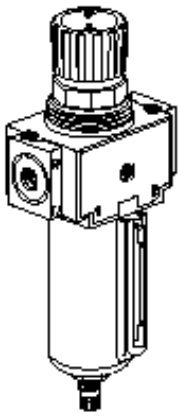
Service and Replacement Parts

P3A, P3D & P3E Series Modular Filter- Regulators

Filter Elements

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
5 micron element (standard)	P3A-KA00EEN	P3D-KA00EFA	P3E-KA00EFA
5 micron compact element	Not used	Not used	P3E-KA00ETA
40 micron element	P3A-KA00EGN	P3D-KA00EHA	P3E-KA00EHA
40 micron compact element	Not used	Not used	P3E-KA00EVA

Replacement Bowl Kits (Metal)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Metal bowl with manual drain	P3A-KA00BPA	P3D-KA00BKA	P3E-KA00BKA
Metal bowl with semi-auto drain	P3A-KA00BQA	P3D-KA00BLA	P3E-KA00BLA
Metal bowl with auto drain			P3E-KA00BMA
Compact bowl/manual drain	Not used	Not used	P3E-KA00BTA
Compact bowl/semi-auto drain	Not used	Not used	P3E-KA00BVA
Compact bowl/auto drain	Not used	Not used	P3E-KA00BWA

Replacement Bowl Kits (Polyamide)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Polyamide bowl with manual drain	P3A-KA00BBA	P3D-KA00BBA	P3E-KA00BBA
Polyamide bowl with semi-auto drain	P3A-KA00BCA	P3D-KA00BCA	P3E-KA00BCA
Polyamide bowl with auto drain			P3E-KA00BDA

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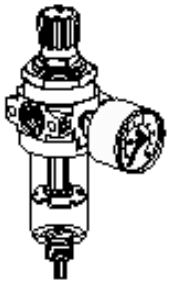
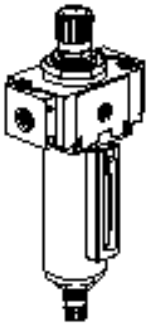
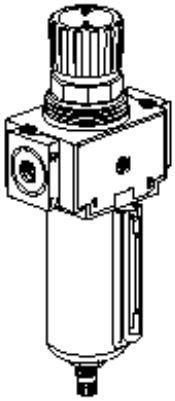
Service and Replacement Parts







P3A, P3D & P3E Series Modular Filter- Regulators

Bowl Seal Kits (Contains 10 replacement Seals)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Metal bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00BRWN
Polyamide bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00RZN

Drain Kits

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Manual drain	P3E-KA00DBN	P3E-KA00DBN	P3E-KA00DBN
Semi-Auto Drain	P3A-KA00DCN	P3A-KA00DCN	P3A-KA00DCN
Auto-Drain	Available 2001	Available 2001	P3E-KA00DDN

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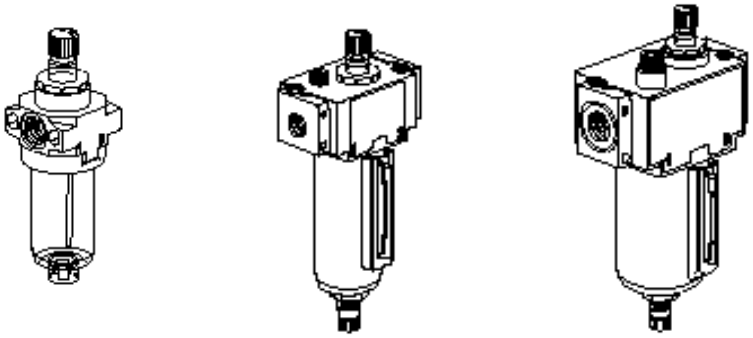
Service and Replacement Parts



P3A, P3D & P3E Series Modular Lubricators

Replacement Bowl Kits

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Polyamide Bowl, no drain	P3A-KA00BAA	P3D-KA00BAA	P3E-KA00BAA
Polyamide Bowl, manual drain	P3A-KA00BBA	P3D-KA00BBA	P3E-KA00BBA
Metal Bowl, manual drain	P3A-KA00BPA	P3D-KA00BKA	P3E-KA00BKA
Compact Metal Bowl, Man. Dr.	Not used	Not used	P3E-KA00BTA

Bowl Seal Kits (Contains 10 replacement Seals)

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Metal bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00RWN
Polyamide bowl	P3A-KA00RZN	P3D-KA00RWN	P3E-KA00RZN

Seal Kits

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Replacement seals	1589R	2589R	4589R

Drip Control Assembly

Description	Kit Part Number		
	P3A Mini Series	P3D Junior Series	P3E Maxi Series
Oil drip control assembly	5589-200	5589-200	5589-200

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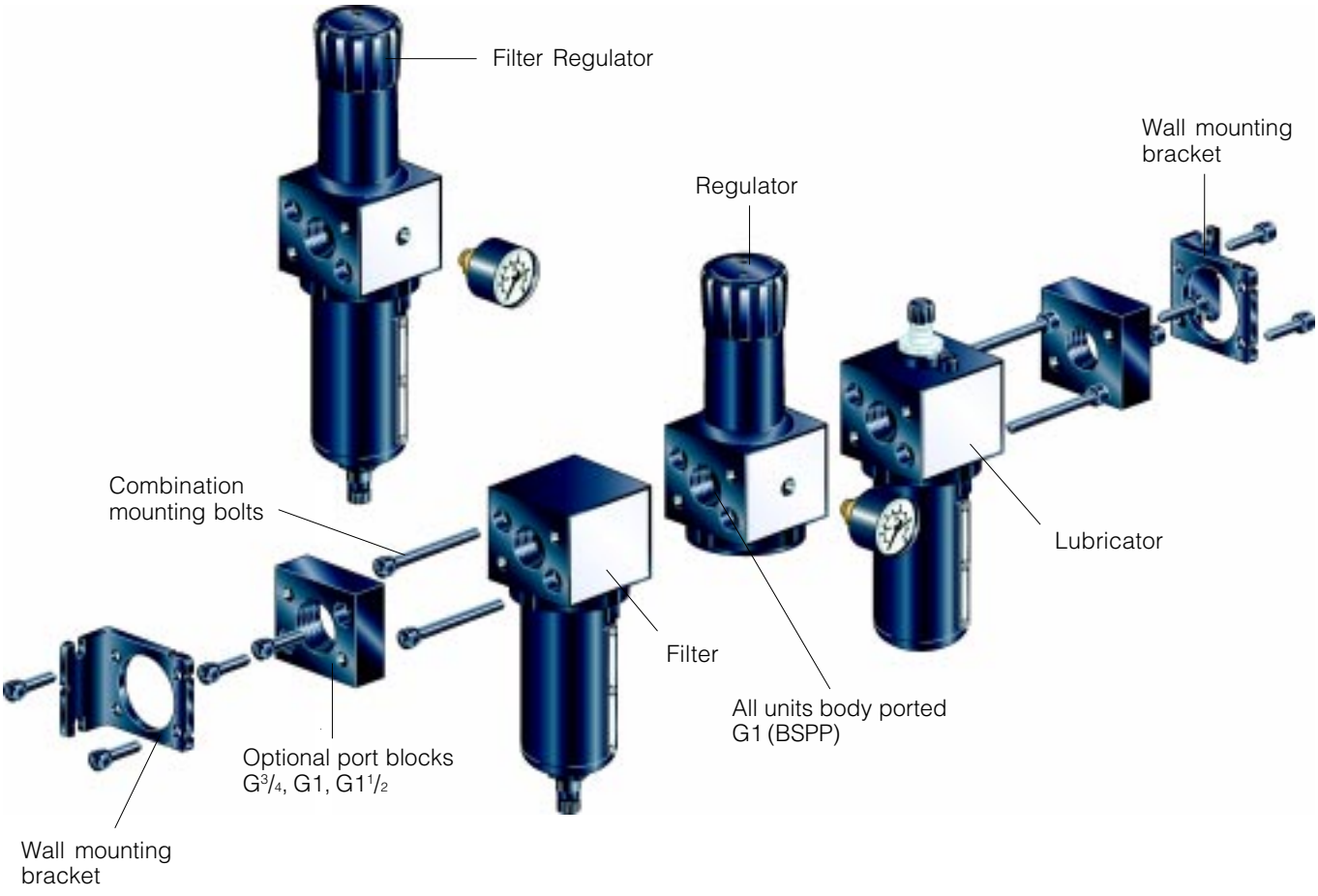
The System

The Modular 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.

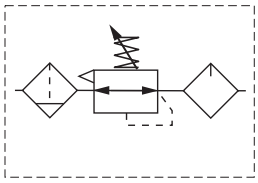
The 1" Series filters are specially designed to efficiently filter out rust, dirt, moisture and other impurities from compressed air lines. Operation is fully automatic with a minimum of pressure drop.

The 1" Series Regulators are designed to provide quick response and accurate pressure regulation for the most demanding Hi-flow industrial applications. The unique solid piston was designed for long trouble-free operation and will not rupture or tear under high cycle or other demanding applications.

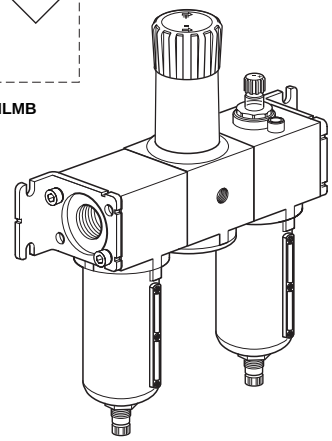
The 1" Series mist lubricators are designed to provide lubrication for many general purpose applications in a pneumatic system.



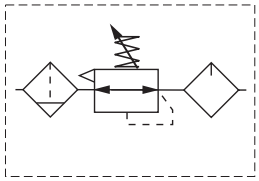
Combinations



P3NCB18SEMNNLMB



Typical Combination
1" FRL
5 micron elements, 8 bar regulator
+ wall mounting brackets



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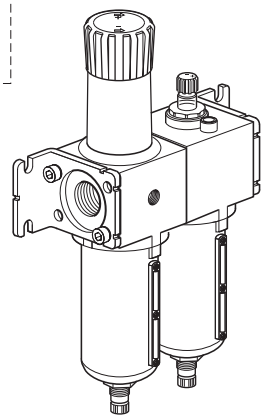


Typical Combination
Filter/Regulator - Lubricato
5 micron elements, 8 bar regulator
+ wall mounting brackets

P3N | **C** | [ ] | **1** | [ ] | **S** | [ ] | [ ] | [ ] | [ ] | **L** | [ ] | **B**

Modular Combinations

Metal bowl with sight glass

Wall mounting brackets

Units	
Filter/reg + Lubricator	**A**
Filter+Regulator + Lubricator	**B**

Port type	
'G' Thread (BSPP)	**1**

Port size	
3/4" ports (1" units with 3/4" port extensions)	**L**
1" ports (without port extensions)	**8**
1" ports (with 1" port extensions)	**M**
1.1/2" ports (1" units with 1.1/2" port extensions	**B**

Filter elements	
40 micron element (Standard)	**G**
5 micron element (Optional)	**E**

Regulator type	
Relieving	**B**
Non-relieving	**N**

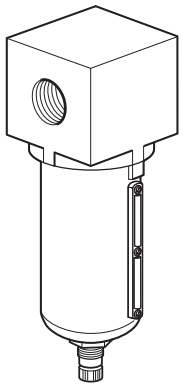
Lubricator drain options	
Metal bowl Manual drain	**M**
Metal bowl No drain	**N**

Filter drain options	
Manual Drain	**M**
Semi-auto Drain	**S**
Auto Drain	**A**

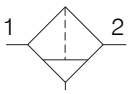
Reg. Pressure range	
Without gauge	
0 - 2 bar	**Y**
0 - 4 bar	**L**
0 - 8 bar	**N**
0 - 16 bar	**H**
With gauge	
0 - 2 bar	**Z**
0 - 4 bar	**M**
0 - 8 bar	**G**
0 - 16 bar	**J**

1" Modular FRLs

Filters

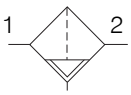


Symbols



Manual drain

Semi auto drain



Auto drain

- Port blocks available to provide G3/4 and G1 1/2 port extension to G1 ported bodies.
- Excellent water removal efficiency.
- Metal bowl with sight gauge.
- Larger filter element surface guarantees low pressure drop and increased element life.
- Manual drain, Semi-Auto or Auto Drain options.

Options:

P3N **F** (Filter) **A** [ ]

Port type	
'G' Thread (BSPP)	**1**

Port size	
3/4" ports (1" units with 3/4" port extensions)	**L**
1" ports (without port extensions)	**8**
1.1/2" ports (1" units with 1.1/2" port extensions	**B**

Filter elements	
40 micron element (Standard)	**G**
5 micron element (Optional)	**E**

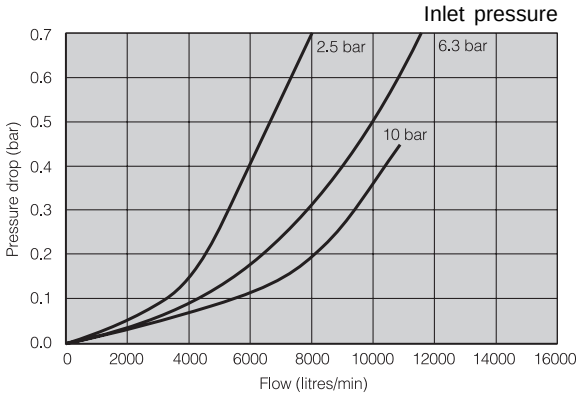
Bowl/drain options	
Metal bowl Manual drain	**SM**
Metal bowl Semi-auto drain	**SS**
Metal bowl Auto drain	**SA**

Technical information

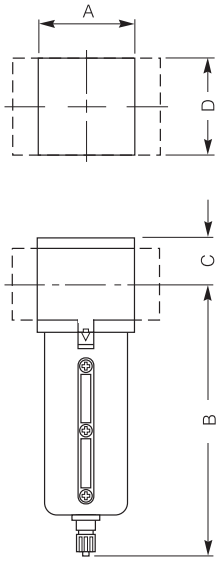
Port size	G1
Filter element grade:	Standard 40 micron
	Option 5 micron
Pressure range:	17 bar max
Temperature range:	-20°C to +80°C

Note: For materials see page 59.

Flow characteristics



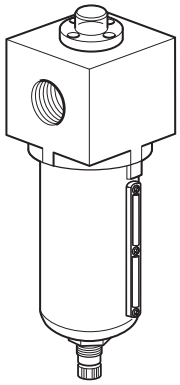
Dimensions (mm)



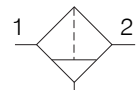
Port size	A	B	C	D	Weight (kg)
G1	92	254	35	92	1.6

For accessories and port blocks see page 59.

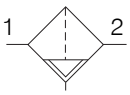
Coalescing filters



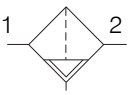
Symbols



Manual drain



Semi auto drain



Auto drain

- DPI indicator as standard
- Port blocks available to provide G3/4 and G1 1/2 port extension to G1 ported bodies.
- Excellent water removal efficiency.
- Metal bowl with sight gauge or plastic bowl with steel cover available.
- Larger filter element surface guarantees low pressure drop and increased element life.
- Manual drain as standard, optional auto drain or semi-auto drain available.

Options:

P3N F A ☐ ☐ ☐ ☐ ☐

Coalescing Filter

Port type	
'G' Thread (BSPP)	**1**

Port size	
3/4" ports (1" units with 3/4" port extensions)	**L**
1" ports (without port extensions)	**8**
1.1/2" ports (1" units with 1.1/2" port extensions	**B**

Filter elements	
Coalescing Grade 6 with pressure drop indicator (Standard)	**D**
Coalescing Grade 10 with pressure drop indicator	**Q**
Adsorber element with pressure drop indictor	**B**
Adsorber element without pressure drop indictor	**A**

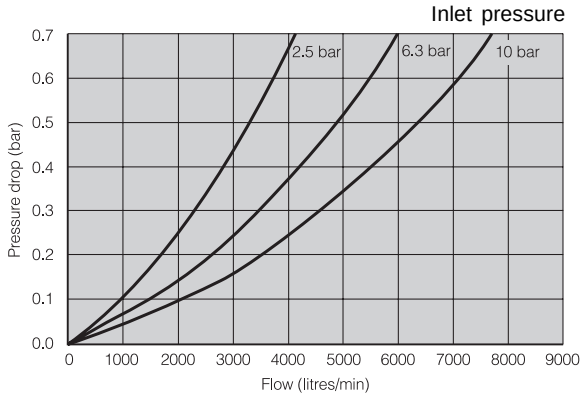
Bowl/drain options	
Metal bowl Manual drain	**SM**
Metal bowl Semi-auto drain	**SS**
Metal bowl Semi-auto drain	**SA**

Technical information

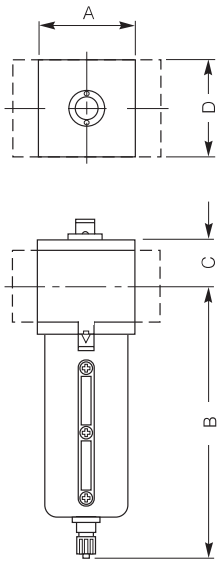
Port size	G1
Coalescing element grade:	0.3 micron Grade 6
Pressure range:	17 bar max
Temperature range:	-20°C to +80°C

Note: For materials see page 59.

Flow characteristics



Dimensions (mm)

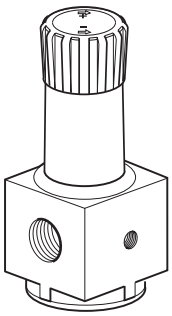


Port size	A	B	C	D	Weight (kg)
G1	92	254	35	92	1.6

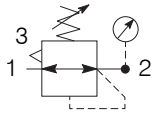
For accessories and port blocks see page 59.

1" Modular FRLs

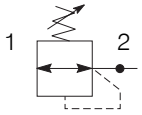
Regulators



Symbols



Self bleed regulator with gauge



Non bleed regulator

- Port blocks available to provide G3/4 and G1 1/2 port extension to G1 ported bodies
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.

Options:

P3N	R	A	1			N	
	Regulator		Port type	Port size	Regulator type		Regulator Pressure range

Port type	
'G' Thread (BSPP)	1

Port size	
3/4" ports (1" units with 3/4" port extensions)	L
1" ports (without port extensions)	8
1.1/2" ports (1" units with 1.1/2" port extensions	B

Regulator type	
Relieving	B
Non-relieving	N

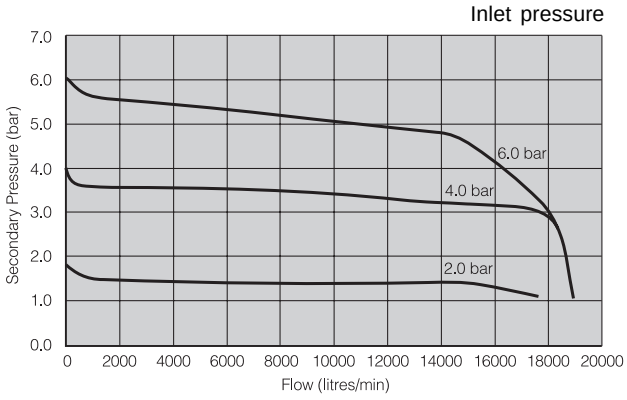
Regulator Pressure range			
Without gauge		With gauge	
0 - 2 bar	Y	0 - 2 bar	Z
0 - 4 bar	L	0 - 4 bar	M
0 - 8 bar	N	0 - 8 bar	G
0 - 16 bar	H	0 - 16 bar	J

Technical information

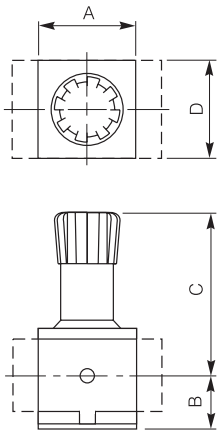
Port size	G1	
Gauge ports:	G1/4	
Max inlet pressure (p1):	17 bar max	
Secondary pressure range: (p2)	Standard:	0.1 to 8 bar
	Option 1:	0.1 to 2 bar
	Option 2:	0.1 to 4 bar
	Option 3:	0.3 to 16 bar
Temperature range:	-20°C to +80°C	

Note: For materials see page 59.

Flow characteristics



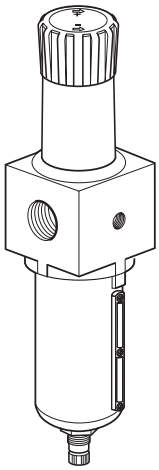
Dimensions (mm)



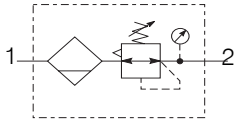
Port size	A	B	C	D	Weight (kg)
G1	92	53	162	92	1.9

For accessories and port blocks see page 59.

Filter/Regulators



Symbol



- Port blocks are available to provide G3/4 and G1 1/2 port extension to G1 ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.

Options:

P3N E A 1 ☐ ☐ ☐☐ B N ☐

Filter/ Regulator

Port type	
'G' Thread (BSPP)	1

Port size	
3/4" ports (1" units with 3/4" port extensions)	**L**
1" ports (without port extensions)	**8**
1.1/2" ports (1" units with 1.1/2" port extensions	**B**

Filter elements	
40 micron element (Standard)	**G**
5 micron element (Optional)	**E**

Bowl/drain options	
Metal bowl Manual drain	**SM**
Metal bowl Semi-auto drain	**SS**
Metal bowl Auto drain	**SA**

Relieving

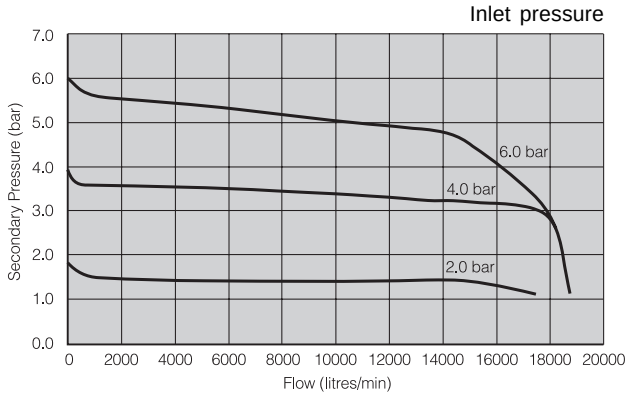
Spring rating			
Without gauge		With gauge	
0 - 2 bar	**Y**	0 - 2 bar	**Z**
0 - 4 bar	**L**	0 - 4 bar	**M**
0 - 8 bar	**N**	0 - 8 bar	**G**
0 - 16 bar	**H**	0 - 16 bar	**J**

Technical information

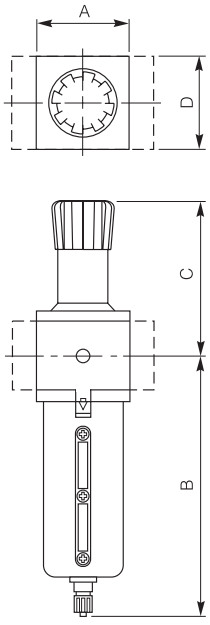
Port size	G1	
Gauge ports:	G1/4	
Max inlet pressure (p1):	17 bar max	
Secondary pressure range: (p2)	Standard:	0.1 to 8 bar
	Option 1:	0.1 to 2 bar
	Option 2:	0.1 to 4 bar
	Option 3:	0.3 to 16 bar
Temperature range:	-20°C to +80°C	

Note: For materials see page 59.

Flow characteristics



Dimensions (mm)

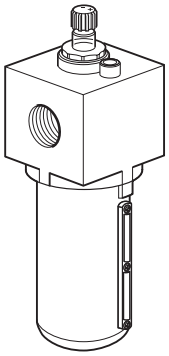


Port size	A	B	C	D	Weight (kg)
G1	92	243	162	92	2.4

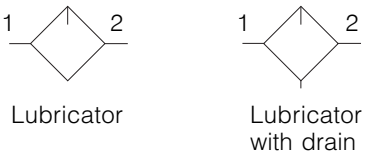
For accessories and port blocks see page 59.

1" Modular FRLs

Lubricators



Symbols



- Port blocks available to provide G3/4 and G1 1/2 port extension to G1 ported bodies.
- Proportional oil delivery over a wide range of air flows.
- Bowl can be filled while air line is under pressure.
- Transparent sight dome for 360° visibility.

Options:

P3N **L** **A** ☐ ☐ **L** ☐☐

Lubricator

Port type	
'G' Thread (BSPP)	**1**

Port size	
3/4" ports (1" units with 3/4" port extensions)	**L**
1" ports (without port extensions)	**8**
1.1/2" ports (1" units with 1.1/2" port extensions	**B**

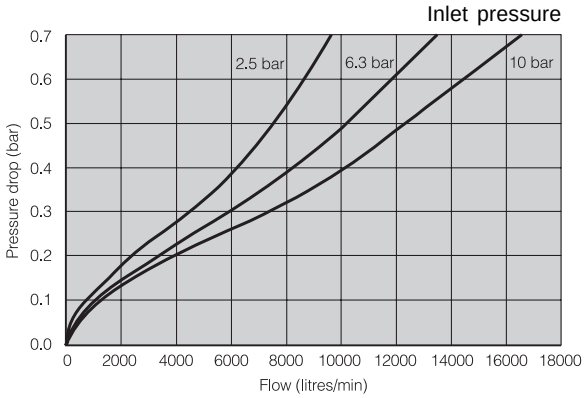
Bowl/drain options	
Metal bowl Manual drain	**SM**
Metal bowl No drain	**SN**

Technical information

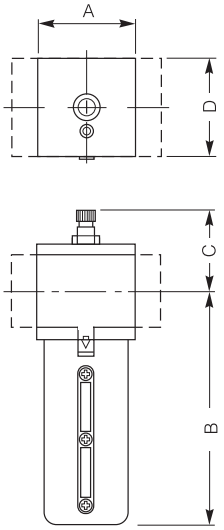
Port size	G1
Max inlet pressure (p1):	17 bar max
Min flow oil pickup:	3.7 l/sec
Bowl capacity:	300cc
Recommended lubricant:	See page 63
Temperature range:	-20°C to +80°C

Note: For materials see page 59.

Flow characteristics



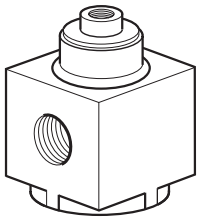
Dimensions (mm)

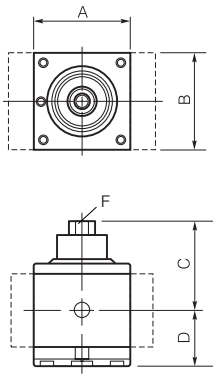


Port size	A	B	C	D	Weight (kg)
G1	92	230	71.3	92	1.6

For accessories and port blocks see page 59.

Air pilot regulators



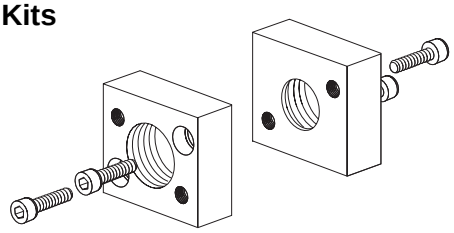


- Port blocks available to provide G3/4 and G1 1/2 port extension to G1 ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.

Order code
P3NRA18BPP

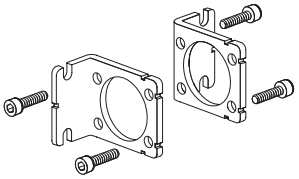
A	A (PB)	B	C	D	E	F
92	142	92	86	53	139	G1/4

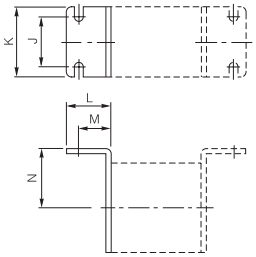
Port Block Kits



Description	Connection	Weight Kg	Order Code
Kits for single Units or Combinations without Lubricators (2 port blocks + 2 seals)	G3/4	574	**P3NKB16CP**
	G1	554	**P3NKB18CP**
	G1 1/2	534	**P3NKB1BCP**
Kits for Combinations with Lubricators (2 port blocks + 2 seals)	G3/4	574	**P3NKB16CL**
	G1	554	**P3NKB18CL**
	G1 1/2	534	**P3NKB1BCL**

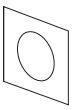
Mounting brackets





Order code		L	M	N	J	K
P3NKA00MW	For 3/4 & 1" sizes	45	33	60	50	70
P3NKB00MW	For 1.1/2" port size					

Body Covers



Order code
P3NKA00PM

Each kit contains two covers.

Materials

Filter

Body	Aluminium
Bowl	Aluminium
Deflector	Plastic
Drain	Plastic
Seals	Nitril
Element	Plastic
Sight Glass	Polyamide

Regulator

Adjustment Stem	Steel
Body	Aluminium
Bonnet	Aluminium
Knob	Plastic
Piston	Plastic
Poppet Assembly	Brass
Seals	Nitrile
Spring (Poppet & Control)	Steel

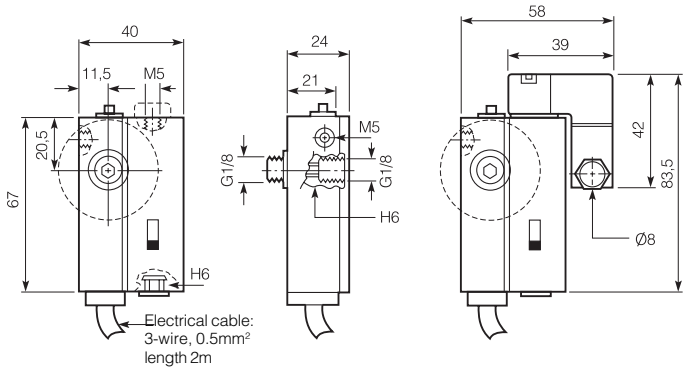
Lubricator

Body	Aluminium
Bowl (metal)	Aluminium
Drains	Plastic
Injector meter block & brass assembly	Plastic
Seals	Nitrile
Sight glass	Polyamide
Sight dome	Polycarbonate

Filter/Regulator

Body, Bonnet & Bowl	Aluminium
Deflector	Plastic
Drains	Plastic
Seals	Nitrile
Element	Plastic
Sight glass	Polyamide
Piston	Plastic
Knob	Plastic
Spring (Poppet & Control)	Steel

Adjustable Reset Pressure Switches



The Adjustable Reset Pressure Switch is designed to provide a safeguard for pneumatic systems or machines, which require a minimum operating pressure to operate effectively. When the correct pressure is present the switch provides a constant output signal which should be used to operate a control valve or device to enable the system to perform its normal function. If the operating pressure falls below the set level, the constant output signal is cancelled, allowing the control valve or device to stop the system in a safe manner.

Once the pressure rises above the preset threshold, unlike a conventional pressure switch, the Adjustable Reset Pressure Switch must be reset before it can once again transmit the output signal authorising operation. The reset signal may be manual, pneumatic or electrical.
Versions are available to provide either pneumatic or electrical output signals or both.

Pneumatic characteristics

Pressure range	:	1,5 to 8 bar max
Temperature range	:	-10⁰ to +55⁰C
Adjustment range	:	1,5 to 6 bar
Precision	:	±0,2 bar

Electrical characteristics

Electrical output	:	On/Off relay
5A / 250V A.C.		
5W / 48V D.C.		
Electrical reset = 1W		

Part nos. Switches

Part no.	Description
P3E-KA11SAN	Pneumatic output, manual reset.
P3E-KA11SBN	Pneumatic output, reset.
P3E-KA11SCN	Electrical and pneumatic outputs, manual resets.
P3E-KA11SDN	Electrical and pneumatic outputs, pneumatic reset.
P3E-KA11SEN	Electrical and pneumatic outputs, electrical reset

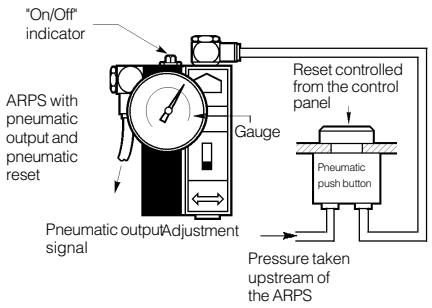
Note: Micro-solenoid not included.
Micro-solenoid valve must be ordered separately.

Micro-Solenoid Valve (Non-locking override) for pressure switch

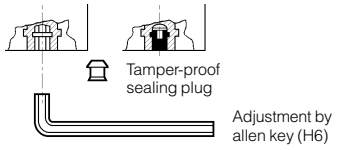
Part no.	Description
P2E-LV32B1	12V. D.C.
P2E-LV32C1	24V. D.C.
P2E-LV32D1	48V. D.C.
P2E-LV34B1	12V. 50/60Hz
P2E-LV31C1	24V. 50Hz
P2E-LV33C1	24V. 60Hz
P2E-LV34D1	48 V. 50/60Hz
P2E-LV31F1	115V. 50Hz / 120V. 60Hz
P2E-LV31J1	230V. 50Hz / 240V. 60Hz

See cable plugs Page 16

Pneumatic remote controlled reset

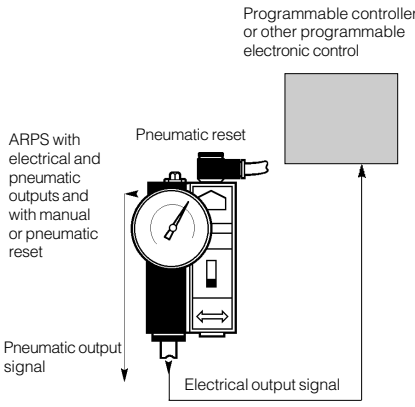


Adjusting the cut-off pressure

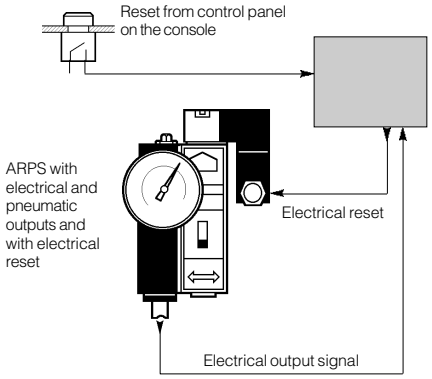


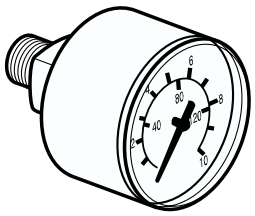
On all ARPS, the tripping pressure is adjusted by an allen key. Tamper proof sealing plug prevents unauthorised adjustment.

Direct pressure return



Pressure return through programmable control





- Wide range of pressure gauges
- Rear entry and bottom entry options
- Back pressure gauge for reclassifier-silencers
- Round or square panel mounted gauges
- Integrated thread sealing ring

Pressure gauges

Symbol	Description	Pressure range, bar	Port size	Dial mm	Weight Kg	Order code
	Rear entry	0-2	G1/8	40	0,062	**P3D-KAB1AYN**
		0-4	G1/8	40	0,062	**P3D-KAB1ALN**
		0-10	G1/8	40	0,062	**P3D-KAB1ANN**
		0-20	G1/8	40	0,062	**P3D-KAB1AHN**
	Rear Entry	0-4	G1/8	50	0,068	**P6G-ERB1040**
		0-11	G1/8	50	0,068	**P6G-ERB1110**
		0-14	G1/8	50	0,068	**P6G-ERB1140**
	Rear entry	0-4	G1/4	50	0,074	**P6G-ERB2040**
		0-14	G1/4	50	0,074	**P6G-ERB2140**
		0-20	G1/4	50	0,074	**P6G-ERB2200**
	Bottom entry	0-11	G1/8	50	0,065	**P6G-EBB1110**
	Panel Mounted - Rear Entry	0-14	G1/8	50	0,100	**P6G-EPA1140**
		0-11	G1/8	63	0,080	**P6G-FPA1V10**
		0-10	G1/4	85	0,180	**P6G-HPA1100**
	Square - Panel Mounted - Rear Entry	0-10	G1/8	50x50	0,100	**P6G-RPA1100**
		0-4	G1/8	75x75	0,200	**P6G-TPA1040**
		0-10	G1/8	75x75	0,190	**P6G-TPA1100**
	Rear Entry - BackPressure (Reclassifiers)	0-2	G1/8	40	0,062	**P6G-DEB1020**

Panel mounting gauges

Panel mounting gauges have a threaded body and are supplied complete with a plastic mounting collar.

Filter Spare Kits Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Drain Kits				
Manual drain kit	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**	**P3E-KA00DBN**
Semi-auto drain kit	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**	**P3A-KA00DCN**
Auto drain kit			**P3E-KA00DDN**	**P3E-KA00DDN**
Bowl Kits **Poly bowl**				
Poly bowl with manual drain	**P3A-KA00BBA**	**P3D-KA00BBA**	**P3E-KA00BBA**	
Poly bowl with semi-auto drain	**P3A-KA00BCA**	**P3D-KA00BCA**	**P3E-KA00BCA**	
Poly bowl with auto drain			**P3E-KA00BDA**	
Metal bowl				
Metal bowl with manual drain	**P3A-KA00BPA**	**P3D-KA00BKA**	**P3E-KA00BKA**	
Metal bowl with semi-auto drain	**P3A-KA00BQA**	**P3D-KA00BLA**	**P3E-KA00BLA**	
Metal bowl with auto drain			**P3E-KA00BMA**	
Compact metal bowl with manual drain			**P3E-KA00BTA**	
Compact metal bowl with semi-auto drain			**P3E-KA00BVA**	
Compact metal bowl with auto drain			**P3E-KA00BWA**	
Filter Element Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EEN**	**P3E-KA00EEN**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ERN**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EGN**	**P3E-KA00EGN**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00ESN**	
Coalescing element	**P3A-KA00ECN**	**P3D-KA00ECN**	**P3E-KA00ECN**	**P3NKA00ESC**
Coalescing element (compact bowl)			**P3E-KA00EPN**	
Adsorber element	**P3A-KA00EAN**	**P3D-KA00EAN**	**P3E-KA00EAN**	**P3NKA00ESA**
Adsorber element (compact bowl)			**P3E-KA00ENN**	
Seal Kits				
Poly bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RZN**	
Metal bowl seal (10 off)	**P3A-KA00RZN**	**P3D-KA00RWN**	**P3E-KA00RWN**	
Connector O ring (10 off)	**P3A-KA00CYN**	**P3D-KA00CYN**	**P3E-KA00CYN**	
Regulator Spare Kits				
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00RRN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RNN**	**P3NKA00RN**
Metal panel mounting ring	**P3A-KA00MMN**	**P3A-KA00MMN**	**P3E-KA00MMN**	
Plastic panel mounting ring (5 off)	**P3A-KA00MPN**	**P3A-KA00MPN**		
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	

Model	Mini Series P3A	Junior Series P3D	Maxi Series P3E	G1 Series P3N
Filter/Regulator Spare Kits				
5 micron element	**P3A-KA00EEN**	**P3D-KA00EFA**	**P3E-KA00EFA**	**P3NKA00ESE**
5 micron element (compact bowl)			**P3E-KA00ETA**	
40 micron element	**P3A-KA00EGN**	**P3D-KA00EHA**	**P3E-KA00EHA**	**P3NKA00ESG**
40 micron element (compact bowl)			**P3E-KA00EVA**	
Repair kit (self-relieving)		**P3D-KA00RRN**	**P3E-KA00REN**	**P3NKA00RR**
Repair kit (non-relieving)		**P3D-KA00RNN**	**P3E-KA00RGN**	**P3NKA00RN**
Tamperproof kit	**P3A-KA00ATN**	**P3A-KA00ATN**	**P3E-KA00ATN**	
For Drain Kits - see Filters on page 62				
For Bowl Kits - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				
Lubricator Spare Kits				
Plastic bowl without drain	**P3A-KA00BAA**	**P3D-KA00BAA**	**P3E-KA00BAA**	
For Manual Drain Kits - see Filters on page 62				
For Bowl Kits with Manual Drain - see Filters on page 62				
For Bowl Seal Kit - see Filters on page 62				

Lubrication of airlines

Satisfactory operation of airline equipment and effective lubrication depends upon the proper selection of lubrication oil. Oils having a viscosity below ISO3448 Grade 10 to 22 will satisfy most high-speed pneumatic tools and other light duty requirements.

Heavy duty tools and pneumatic valves and cylinders will normally require oils in the viscosity ISO3448 Grade 32 to 68.

Only Paraffinic based oils can be used and the following recommendations are given as a general guide to types of oil that are suitable for use with Parker airline equipment.

	High speed tools and systems		Air Cylinders and valves	
Oil Company	**ISO Grade**	**Grade**	**ISO Grade**	**Grade**
Century Oils	Century P - 198	15	P.W.L.A	32
Alexander Duckham	Zurcon 2	15	Zurcon 4 32	
Gulf	Harmony 38AW	15	Harmony 43AW	32
Shell (UK) Oil	Tellus 22	22	Tellus 37	37
Burmah Castrol	Hyspin AWS15	15	Hyspin AWS32	32
Edgar Vaughan	KSO 5L	10	Hydrodrive HP100	32
Esso Petroleum	NUTO 1115	15	NUTO H32	32
B.P.	HLP 22	22	HLP 32	32
Mobile Oil Company	Velocite No.6	10	DTE Oil - Light	32
Mobile			VPI-A	32
Silkolene	Silkair GP22	22	Derwent 32	32
Silkolene	Dove 15	15		

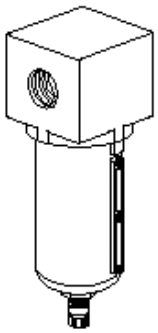
Most Parker Pneumatic valves and cylinders are designed for use in non-lube operation. However airline lubrication will increase the service life.

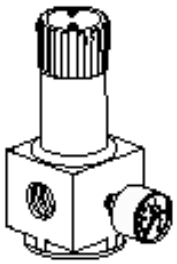
Note! If oil lubrication is used, it must be maintained for the service life of the product.

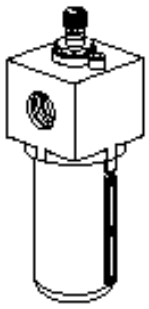
Some specialised lubricants, particular synthetic reclaimed oils and low temperature additives, may contain compounds which are incompatible with certain materials, internal 'O' rings and seals. They may also attack plastic piping or the transparent bowls of the airline lubricator. Attention is drawn to BS6005 (Specification for moulded transparent polycarbonate bowls used in compressed air filters and lubricators).

Do not use oils with additives, compounds oils containing solvents, graphite, detergents or synthetic oils.

Service and Replacement Parts







P3N 1“ Series

Filter Elements

Description	Kit Part Number
5 micron	P3NKA00ESE
40 micron	P3NKA00ESG
Coalescing	P3NKA00ESC
Adsorber	P3NKA00ESA

Pressure Regulator

Part Number	Pressure Gauge	Repair Kit
P3NRA18BNL	P6G-ERB2040	P3NKA00RR
P3NRA18BNN	P6G-ERB2140	
P3NRA18BNH	P6G-ERB2200	
P3NRA18BPP	P6G-ERB2140	

Lubricator

Part Number	Repair Kit	Drip Control Assembly	Fill Cap Kit
P3NLA18LSN	P3NKA00RL	PS740P	P3NKA00PK
P3NLA18LSM			

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