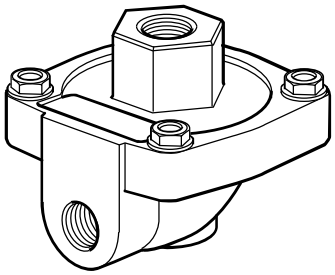
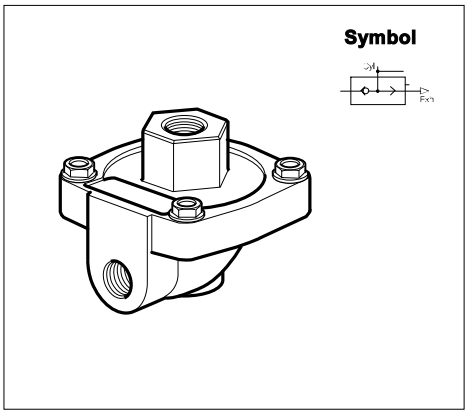
- Increases piston speeds, super sensitive diaphragm
- Extremely low operating differential
- Virtually stiction free
- May be used as differential shuttle valve
- High temperature option



Operating information

Operating pressure:	0,2 to 10 bar
Operating temperature (Standard):	-10°C to +80°C
Operating temperature (High):	-10°C to +180°C
Body material:	Aluminium
Diaphragm material (Standard):	Nitrile
Diaphragm material (High):	Viton



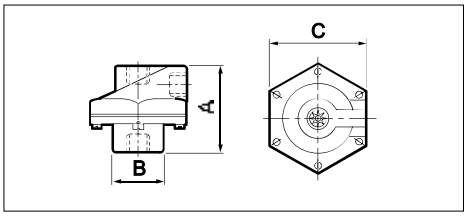
Standard version

Port Size	Cv Rating	Weight kg	Order Code
G1/4	2,3	0,20	**P4Q-BA12**
G3/8	3,6	0,18	**P4Q-BA13**
G1/2	6,6	0,50	**P4Q-CA14**
G3/4	7,3	0,44	**P4Q-CA16**

High temperature version

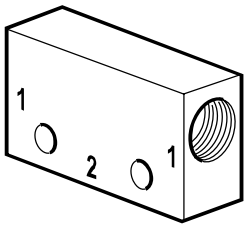
Port Size	Cv Rating	Weight kg	Order Code
G1/4	2,3	0,20	**P4Q-BV12**
G3/8	3,6	0,18	**P4Q-BV13**
G1/2	6,6	0,50	**P4Q-CV14**
G3/4	7,3	0,44	**P4Q-CV16**

Quick Exhaust Valves - Dimensions



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

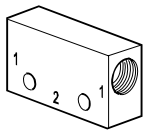
- Allows two separate signals to be applied to the air pilot
- 0,6 bar differential, Viton seals as standard



Operating information

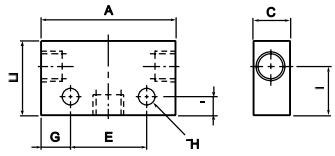
Operating pressure:	1,3 to 17 bar
Flow:	See table below
Operating temperature:	-10ºC to +60ºC
Body material M5 and G1/8:	Aluminium
Body material G1/4	Zinc
Shuttle ball material:	Plastic

Symbol



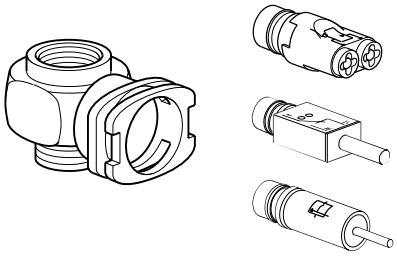
Port Size	Qmax input at 6 bar, l/min*	Weight kg	Order Code
M5	36	0,040	**M33005**
G1/8	509	0,100	**B43005B**
G1/4	1076	0,172	**B53005A**

Shuttle Valves - Dimensions



Order code	Port Size	A	B	C	D	E	F	G	H
M33005	M5	27,5	24	15	16,0	15	6	6,3	3,2
M43005B	G1/8	44,0	24	15	16,0	25	6	9,5	4,5
B53005A	G1/4	52,0	30	22	20,5	35	10	8,5	5,5

- Detects stoppage of a cylinder due to a pressure drop in the exhaust chamber
- For direct mounting to cylinders
- Choice of pneumatic, electrical or electronic output
- Wide range of sizes



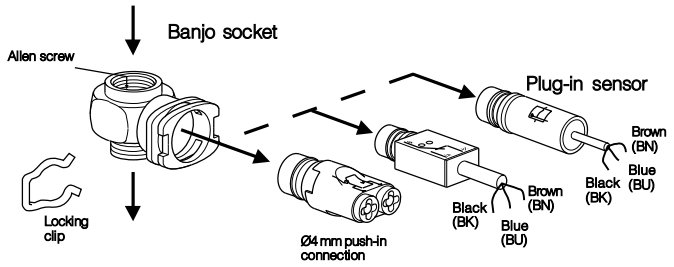
Operating information

Operating pressure:	0 to 10 bar
Permissible fluids:	Air or neutral gas 50micron or filtration, lubricated or not
Operating temperature:	-15°C to +60°C
Storage temperature:	-40°C to +70°C
No. of operations with dry air at 6 bar 20°C 1 Hz:	10 million
Maximum operating frequency:	10 Hz
Output characteristics:	Pneumatic: Flow @ 6 bar 90l/m Electrical: C/contact 2,5A/250V AC, 5W 48V DC Electronic: PNP N/C or N/O 10 to 30V 75 mA DC
Maximum connecting torque:	M5 = 1Nm; 1/8 = 8Nm; 1/4 = 12Nm; 3/8 = 30Nm; 1/2 = 35Nm
Body material:	Thermo plastic
Connection thread:	Brass

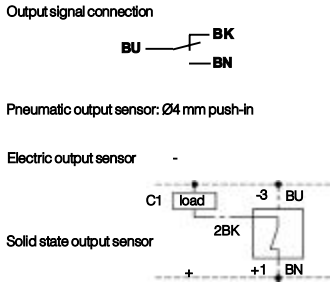
Dimensions and piloting pressures opposite page

Assembly

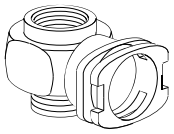
All back pressure sensors are a combination of two distinct parts:
a banjo socket + a plug-in sensor.



Connection

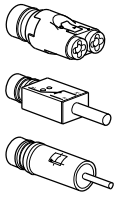


Banjo Sockets



Thread Size for Cylinder Port	Female Thread	Tool Required	Weight Kg	Order code
M5	M5	8mm flat spanner	0,04	**PWS-B155**
G1/8	G1/8	5mm Allen key	0,04	**PWS-B188**
G1/4	G1/4	8mm Allen key	0,05	**PWS-B199**
G3/8	G3/8	10mm Allen key	0,07	**PWS-B133**
G1/2	G1/2	12mm Allen key	0,11	**PWS-B122**

Plug-in Sensors

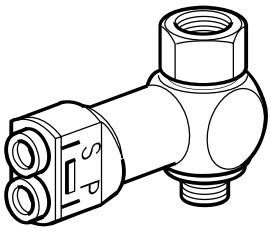


Sensing function	Output function	Output Connection	Output characteristics	Weight kg	Order code
Exhaust back pressure decay	Pneumatic	Push-in Ø4mm	NO valve flow rate at 6 bar 1,5 l/s	0,09	**PWS-P111**
	Electrical ~Ve = 3A	3 wires 0,5mm² length 2m	CO contact 12 to 230V ~ / 10VA* 12 to 48 VDC/5W*	0,08	**PWS-M1012**
	Solid state	3 wires 0,1mm² length 2m	PNP type NC 10/30VDC** 75 mA, NO	0,07 0,07	**PWS-E101** **PWS-E111**

* Suitable for low currents : 250 V ~ / 4 mA ; 24 VDC / 10 mA ** Including ripple

Back Pressure Sensor - Mono block PWS

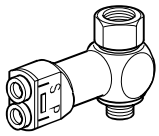
- Detects stoppage of a cylinder due to a pressure drop in the exhaust chamber
- Single unit design
- For direct mounting to cylinders
- Pneumatic output
- Wide range of sizes



Operating information

Operating pressure:	0 to 10 bar
Permissible fluids:	Air or neutral gas 50micron or filtration, lubricated or not
Operating temperature:	-15°C to +70°C
Storage temperature:	-20°C to +70°C
No. of operations with dry air at 6 bar 20°C 1 Hz:	10 million
Maximum operating frequency:	1 Hz
Output characteristics:	Flow @ 6 bar 90l/m
Maximum connecting torque:	M5 = 1Nm; 1/8 = 8Nm; 1/4 = 12Nm; 3/8 = 30Nm; 1/2 = 35Nm
Body material:	Zinc alloy / Thermo plastic
Connection thread:	Brass

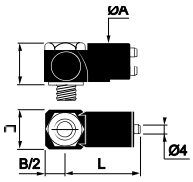
Back Pressure Sensor for Cylinder Mounting



Symbol

Thread Cylinder Port	Thread Supply Port	Bore Ømm	Weight Kg	Order code
M5	M5	2	0,10	**PWS-C5145**
G1/8	G1/8	5	0,11	**PWS-C5148**
G1/4	G1/4	7	0,10	**PWS-C5149**
G3/8	G3/8	10	0,17	**PWS-C5143**
G1/2	G1/2	14	0,15	**PWS-C5142**

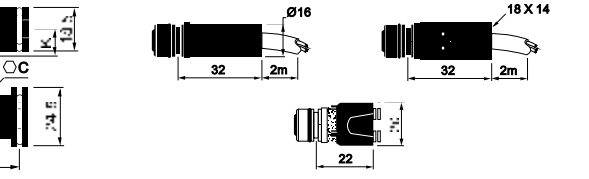
Back Pressure Sensors - Mono block - Dimensions



Order code	ØA	B	H	L
PWS-CS145	19	11,0	16,0	42
PWS-CS148	22	16,5	29,0	40
PWS-CS149	22	23,5	26,0	43
PWS-CS143	22	23,5	36,5	43
PWS-CS142	22	32,0	29,5	48

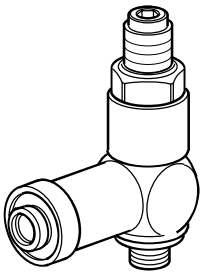
Plug-in & Monoblock back pressure sensors	Pilot operating pressure	Depilot operating pressure
	6bar	6bar
PWS-P111	4,4	0,4
PWS-M1012	1,0	0,6
PWS-E101 & E111	0,7	0,5
PWS-C	1,6 ±0,2	0,3

Back Pressure Sensors - Modular - Dimensions



Order code	C	B	H	K	L
PWS-B155	8	11	16,5	10	17
PWS-B188	5	16	20,0	10	20
PWS-B199	8	21	20,0	10	22
PWS-B133	10	28	22,0	12	25
PWS-B122	12	33	26,0	14	26

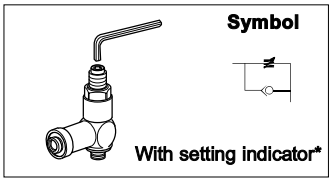
- Adjusts the actuating force developed by a cylinder
- For direct mounting to power valve
- Threaded or push-in ports
- Adjustment by allen key or knurled knob
- Wide range of sizes



Operating information

Operating pressure:	1 to 8 bar
Permissible fluids:	Air or neutral gas 50micron or filtration, lubricated or not
Flow:	See table below
Operating temperature:	-15°C to +70°C
Storage temperature:	-20°C to +70°C
Maximum connecting torque:	1/8 = 8Nm ; 1/4 = 12Nm; 3/8 = 30Nm
Body material:	Zinc alloy
Connection thread:	Brass
Adjustment mode:	Allen key

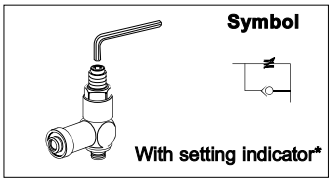
With Push-in Connection



Thread size for cylinder port	Push-in Connection, Ømm	Qmax input at 6 bar, l/min*	Weight kg	Order code
G1/8	6	570	0,30	**PWP-B1268**
G1/4	6	530	0,30	**PWP-B1269**
G1/4	8	870	0,30	**PWP-B1289**
G1/4	10	1400	0,54	**PWP-B1299**
G3/8	10	1530	0,55	**PWP-B1293**

* Adjustment is carried out using a 6mm Allen key or a knurled knob.

With Threaded Connection

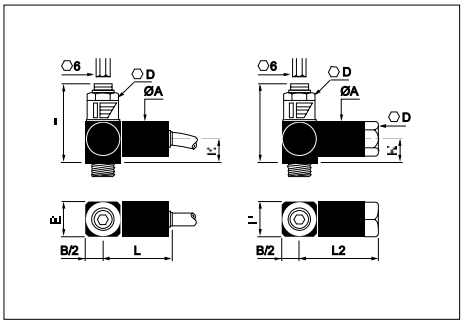


Thread size for cylinder port	Push-in Connection, Ømm	Qmax input at 6 bar, l/min*	Weight kg	Order code
G1/8	G1/8	570	0,34	**PWP-B1888**
G1/4	G1/4	870	0,34	**PWP-B1899**
G3/8	G3/8	3200	0,62	**PWP-B1833**

* Adjustment is carried out using a 6mm Allen key or a knurled knob.

Clip-in knurled adjustment knob for optimisers

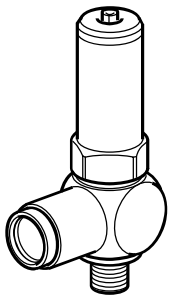
Weight kg	Order code
0,03	**PWP-Z13**



Dimensions

Order code	ØA	B	D	H	K	L	L2
PWP-B1268	22	21	19	58,0	13,5	39	
PWP-B1269	22	21	19	58,0	13,5	39	
PWP-B1289	22	21	19	58,0	13,5	39	
PWP-B1299	27	28	19	65,5	16,5	50	
PWP-B1293	27	28	27	65,5	16,5	50	
PWP-B1888	22	21	19	58,0	13,5		43
PWP-B1899	22	21	19	58,0	13,5		43
PWP-B1833	27	28	27	65,5	16,5		55

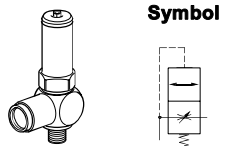
- Enables a gradual increase in pressure
- For direct mounting to power valve
- Instant push-in connections
- Adjustment by allen key



Operating information

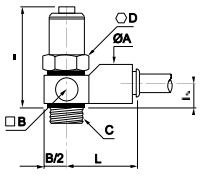
Operating pressure:	3 to 10 bar
Permissible fluids:	Air or neutral gas 50micron or filtration, lubricated or not
Flow:	See table below
Operating temperature:	-15°C to +70°C
Storage temperature:	-20°C to +70°C
No. of operations with dry air at 6 bar 20°C 1 Hz:	1/4 : 10 million; 3/8 : 5 million
Maximum operating frequency:	1 Hz
Maximum connecting torque:	1/4 = 12Nm; 3/8 = 30Nm
Body material:	Thermo plastic
Connection thread:	Brass
Adjustment mode:	Allen key

With Push-in Connection



Thread	Push-in Connection, Ømm	Flow rate at 6 bar, l/min	Weight kg	Order code
G1/4	8	1500	0,07	**PWD-P2489**
G1/4	8	2000	0,12	**PWD-P2499**
G3/8	10	2000	0,13	**PWD-P2493**

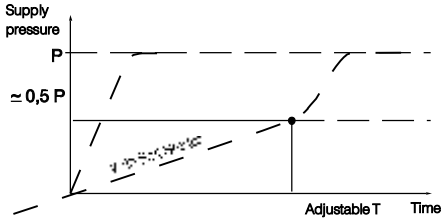
Dimensions



Order code	ØA	B	ØC	D	H maxi	K	L
PWD-P2489	15,0	20	G1/4	17	61	8,5	27,5
PWD-P2499	19,5	25	G1/4	22	62	11,8	41,0
PWD-P2493	19,5	25	G3/8	22	62	11,8	41,0

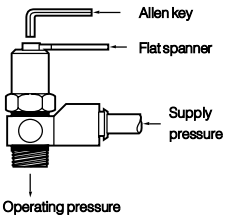
Operation

A Soft starter provides a progressive increase in pressure, in a section of a pneumatic system. When pressure reaches half the supply pressure, full pressure is applied automatically.



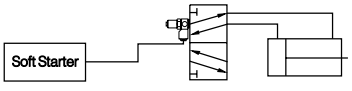
Adjustment

Allen key adjustment of flow rate for slow pressure increase.



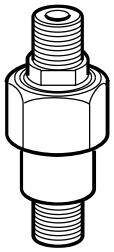
Mounting

These compact devices with push-in tube connection are fitted to the N°1 port of the power valve.



Non return valve - Male thread 3047

- Rugged brass body design
- Standard or high temperature options
- Low 0,1 bar operating pressure
- Full flow in one direction only
- Compact design



Operating information

Operating pressure:	0,1 to 17 bar
Flow:	Qmax at 6 bar, l/min* 1/8 = 1200L/m; 1/4 - 1350 L/m
Operating temperature:	Standard: -26°C to +85°C
	High: -26°C to +230°C
Body material:	Brass
Seal material	Standard: Nitrile
	High: Viton

Standard version

Symbol

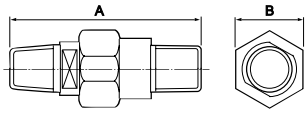
Thread size	Weight kg	Order code
G1/8	0,68	**3047X**
G1/4	0,72	**3047B**

High temperature version

Symbol

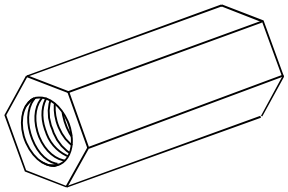
Thread size	Weight kg	Order code
G1/8	0,68	**3047XV**
G1/4	0,72	**3047BV**

Dimensions



Order code	Port Size	A	B
3047X/XV	G1/8	51	21
3047B/BV	G1/4	49	21

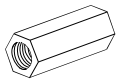
- Aluminium bodies
- Long life
- Low opening pressure
- Full flow in one direction only



Operating information

Operating pressure:	0,1 to 10 bar
Operating temperature:	-20ºC to +70ºC
Body material:	Anodised aluminium
Seal material	Nitrile

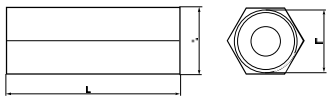
VB - Aluminium



Symbol

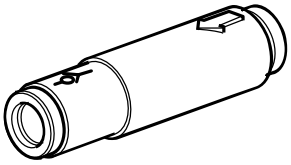
Port size	Weight kg	Order code
G1/8	0,01	**VB12-Q-NQ-5**
G1/4	0,01	**VB22-Q-NQ-5**
G1/2	0,05	**VB42-Q-NQ-5**

Dimensions



Order code	F	L	N
VB12-Q-NQ-5	G1/8	31	14
VQB22-Q-NQ-5	G1/4	40	17
VB42-Q-NQ-5	G1/2	59	27

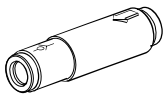
- Low 0,1 bar operating pressure
- Full flow in one direction only
- Compact design
- Instant push-in connections



Operating information

Operating pressure:	0,2 to 10 bar
Flow:	See below
Operating temperature:	-15ºC to +70ºC
Storage temperature	-20ºC to +70ºC
Body material:	Thermo plastic

Line Mounted Non-return Valves

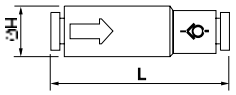


Symbol

Sold in lots of 10

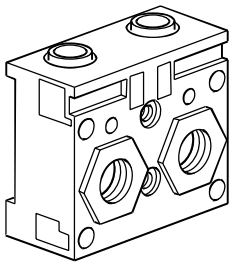
Push-in Connection Ømm	Flow Rate at 6 bar, l/s	Weight Kg	Order code
4	200	0,01	**PWA-L1444**
6	660	0,02	**PWA-L1446**
8	1600	0,02	**PWA-L1448**

Dimensions



Order code	ØH	L
PWA-L1444	11,0	43,0
PWA-L1466	13,0	49,5
PWA-L1488	13,5	55,0

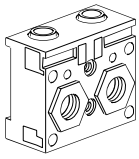
- For the remote mounting of cylinder control accessories
- Suitable for use with
  - Flow regulators
  - Blockers
  - Unloaders
  - Combined devices
  - Optimisers
  - Soft start



Operating information

Operating pressure:	0,2 to 10 bar
Flow:	See below
Operating temperature:	-15ºC to +70ºC
Storage temperature	-20ºC to +70ºC
Body material:	Thermo plastic

Terminal Block Subbases for Cylinder Controls*



For Mounting Other Cylinder Controls	Push-in Connection Ømm	Bore Ømm	Weight Kg	Order code
G1/8	6	4	0,05	**PZC-B2268**
G1/4	8	6	0,05	**PZC-B2289**

* For remote mounting of all cylinder controls, when mounting on power valves or cylinders is impractical.
The subbase is designed for mounting two components side by side.

Dimensions