

PV LINE



INCH/NPTF Function Fittings

Function fittings are fittings that, in addition to the usual tube connection, they offer a variety of pneumatic functions. Function fittings include flow regulators, one-way valves, pneumatic switches, pressure regulators and silencers, just to name a few. The PV line is available in inch sizes and NPTF threads.

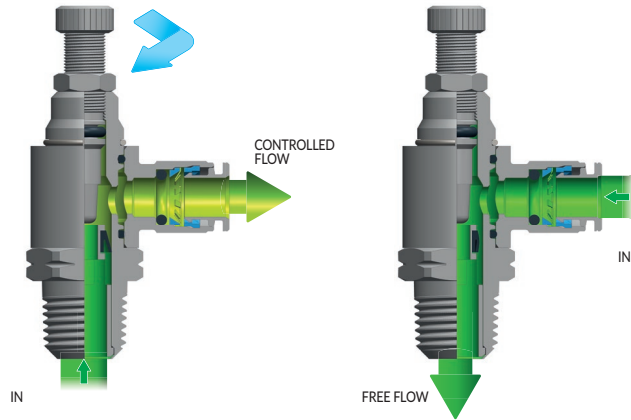
PV Line

INCH/NPT Function Fittings

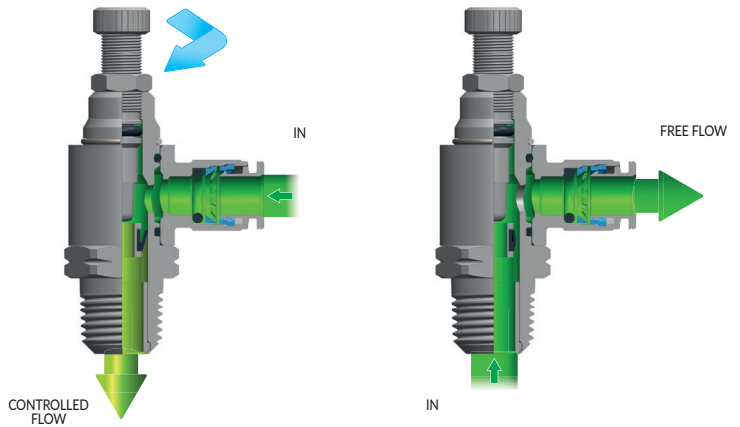
They can adjust the flow in a pneumatic circuit. Depending on the flow control used, the setting can be made both ways (Bidirectional Flow Control), or just one way (Unidirectional Flow Control). The Unidirectional Flow Control is particularly used to adjust the speed of pneumatic cylinders.

Possible Flow Adjustments

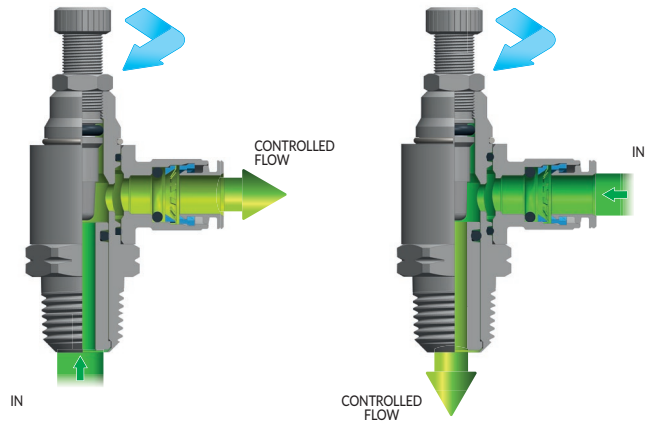
.../O = Meter out flow control



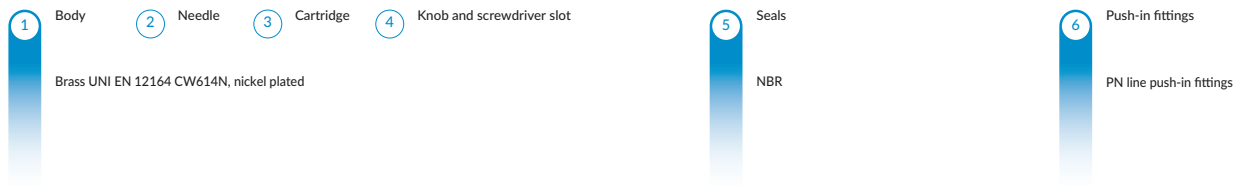
.../I = Meter in flow control



.../B = Bidirectional flow control



Flow control with swivel push-in fitting



-4° + 176°F



0 + 145 PSI



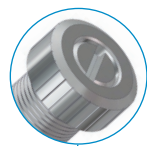
RoHS



REACH



SILICONE FREE



PLUS



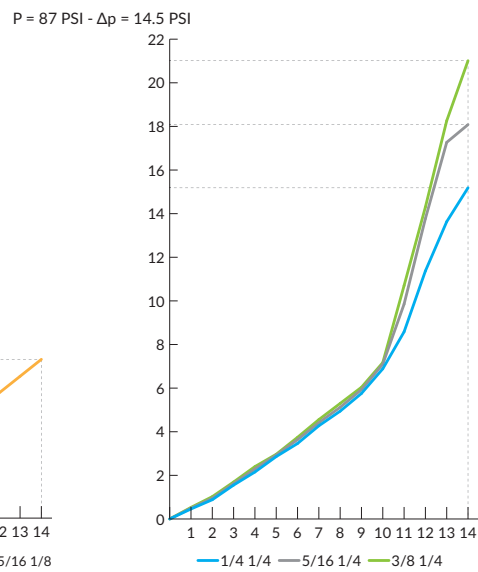
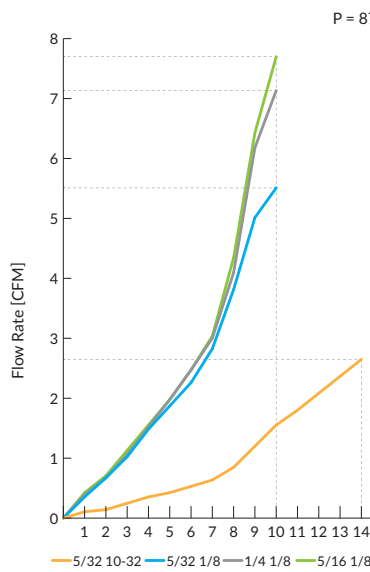
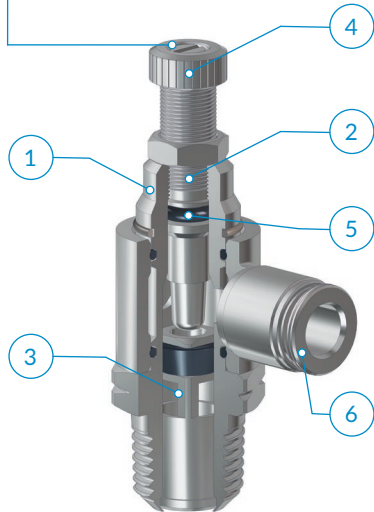
Improved ergonomics: +14% (on average) knob gripping surface.



Screwdriver guide: the slot housed in the knob keeps the screwdriver in place.

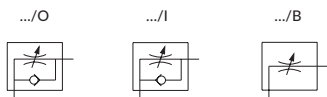


Reliable adjustment: the locking counter-nut protects the setting from vibrations and accidental changes.



Type	OD1	D1	D2	L1	L2	L3 max	L4	H1	oz
18 5/32 10-32	5/32	10-32 UNF	.358	.197	.531	1.630	.736	6	-
18 5/32 1/8	5/32	1/8 NPTF	.358	.335	.846	2.016	.811	9/16	1.253
18 1/4 1/8	1/4	1/8 NPTF	.472	.335	.846	2.016	.894	9/16	1.235
18 1/4 1/4	1/4	1/4 NPTF	.472	.512	1.063	2.319	.953	11/16	1.764
18 5/16 1/8	5/16	1/8 NPTF	.551	.335	.846	2.016	.933	9/16	1.341
18 5/16 1/4	5/16	1/4 NPTF	.551	.512	1.063	2.319	.972	11/16	2.152
18 3/8 1/4	3/8	1/4 NPTF	.630	.512	1.063	2.319	1.035	11/16	2.311

Available as:



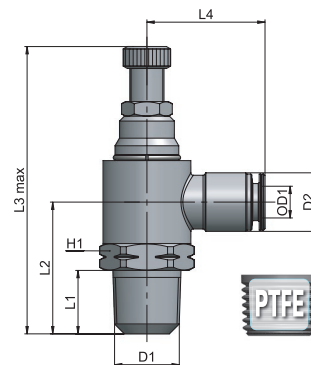
The banjo ring swivels also after flow control installation.

Recommended tubings:

According to the fitting connected to the flow control.

Application field:

Pneumatic installations fed with filtered, lubricated air.



- CO 67
- MA 31
- MM 115
- PA 49
- PE 45
- PM 111
- PN 19
- PT 121
- PU 55
- PU Safety 59
- PUX 101
- PV 81
- PVX 105
- PX 95
- Tool 129
- Tubings 135

PV 21

In-line flow control

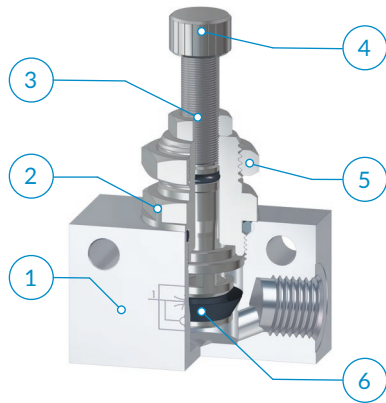
- 1** Body
Anodized aluminium Al2011
- 2** Valve
Brass UNI EN 12164 CW614N, nickel plated
- 3** Needle
- 4** Handwheel
- 5** Nut
- 6** Seals
NBR



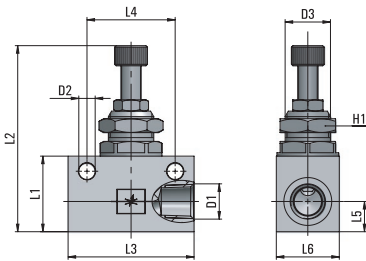
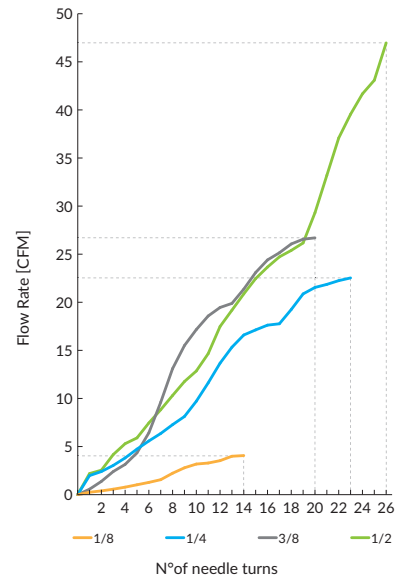
-4° + 176°F



0 + 145 PSI



P = 87 PSI - Δp = 14.5 PSI



Type	D1	D2	D3	L1	L2 max	L3	L4	L5	L6	H1	oz $\Delta\Delta$
21 00 1/8	1/8 NPTF	.177	M12x0,75	.827	1.945	1.339	.945	.315	.630	.591	1.747
21 00 1/4	1/4 NPTF	.256	M18x1,5	1.181	2.961	1.969	1.378	.472	.984	.866	5.733
21 00 3/8	3/8 NPTF	.256	M18x1,5	1.181	2.961	2.283	1.575	.472	.984	.866	5.965
21 00 1/2	1/2 NPTF	.256	M22x1,5	1.575	3.665	2.559	1.969	.669	1.181	1.024	10.618

Available as:



Recommended tubings:
According to the fitting connected to the flow control.

Application field:
Pneumatic installations fed with filtered, lubricated air.

PV 23

Check valve

1 Body
Brass UNI EN 12164 CW614N, nickel plated

2 Valve

3 Spring
Stainless steel AISI 302

4 Seals
NBR



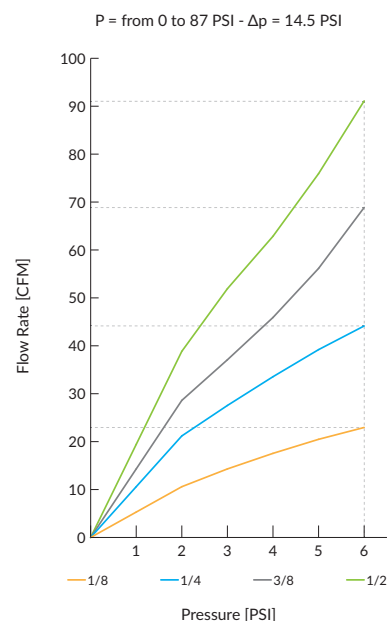
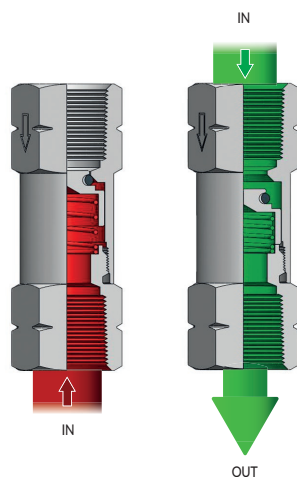
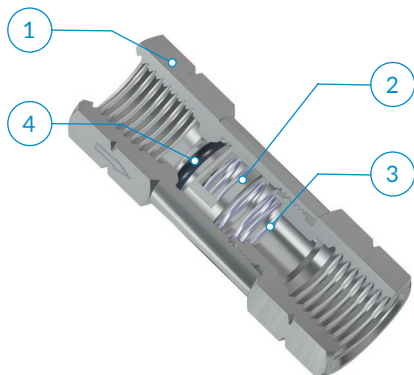
-4° ÷ 176°F



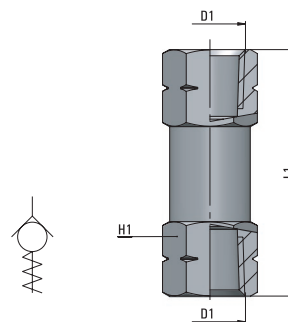
29 ÷ 145 PSI



2.9 PSI



Type	D1	L1	H1	oz Δ
23 00 1/8	1/8 NPTF	1.555	.512	.956
23 00 1/4	1/4 NPTF	1.890	.630	1.514
23 00 3/8	3/8 NPTF	2.047	.787	2.625
23 00 1/2	1/2 NPTF	2.441	.945	4.290



i The flow is allowed only in one way (the arrow direction engraved on the body) and stopped in the reverse way.

Recommended tubings:
According to the fitting connected to the valve.

Application field:
Pneumatic installations fed with filtered, lubricated air.

CO 67

MA 31

MM 115

PA 49

PE 45

PM 111

PN 19

PT 121

PU 55

PU Safety 59

PUX 101

PV 81

PVX 105

PX 95

Tool 129

Tubings 135

PV 26

Slide valve

1

Body

Brass UNI EN 12164 CW614N, chrome plated

2

Sleeve

Anodized aluminium Al6060

3

Seals

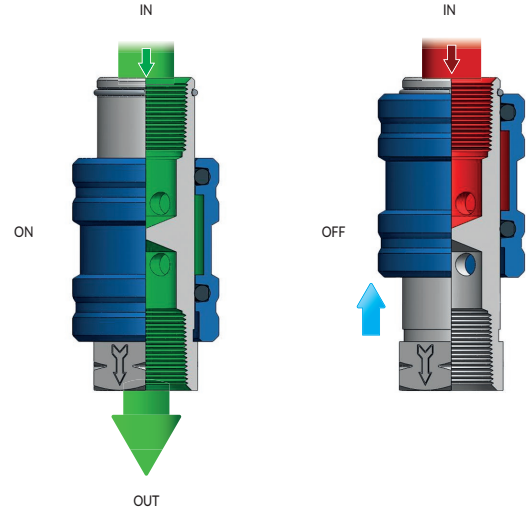
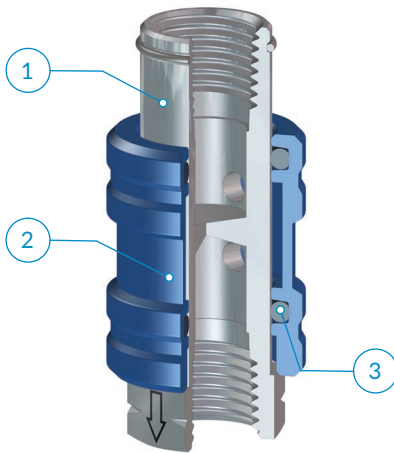
NBR



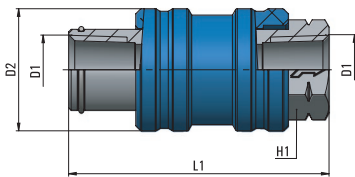
-4° + 176°F



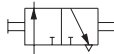
0 + 145 PSI



Flow rate (87 PSI - Δp = 14,5)	IN OUT 1→2
PV 26 00 18	22 CFM
PV 26 00 14	32 CFM
PV 26 00 38	54 CFM
PV 26 00 12	96 CFM



Type	D1	D2	L1	H1	oz
26 1/8 1/8	1/8 NPTF	.827	1.811	.551	1.764
26 1/4 1/4	1/4 NPTF	.945	2.016	.669	2.166
26 3/8 3/8	3/8 NPTF	1.220	2.319	.866	4.110
26 1/2 1/2	1/2 NPTF	1.366	2.854	1.024	-



The valve is used to section a pneumatic installation. Sliding the sleeve on the rod, both ON and OFF positions can be achieved. When the sleeve is against the rod hexagon, the flow goes in the arrow direction (ON); pushing it backwards the air supply is cut off and the installation is vented (OFF).

Recommended tubings:

According to the fitting connected to the valve.

Application field:

Pneumatic installations fed with filtered, lubricated air.

PV 33

Straight connection with check valve



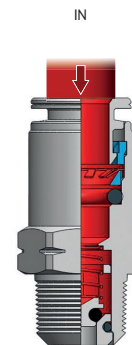
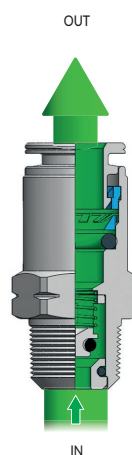
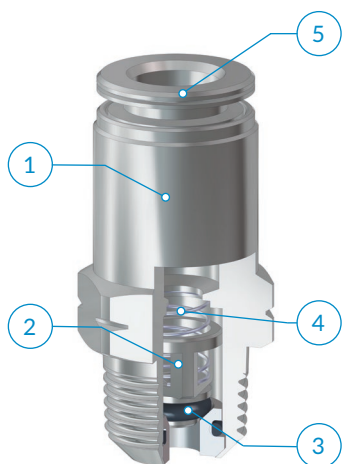
-4° ÷ 176°F



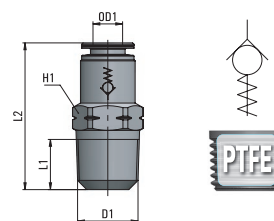
29 ÷ 145 PSI



2.9 PSI



Meter Out Version



Meter Out Version

Type	OD1	D1	L1	L2	H1	oz
33 1/4 1/8	1/4	1/8 NPTF	.323	1.110	.512	.519
33 1/4 1/4	1/4	1/4 NPTF	.512	1.260	.551	.734



The flow is allowed only in one way (the arrow direction engraved on the body) and stopped in the reverse way.

Recommended tubings:

According to the fitting connected to the valve.

Application field:

Pneumatic installations fed with filtered, lubricated air.

CO 67

MA 31

MM 115

PA 49

PE 45

PM 111

PN 19

PT 121

PU 55

PU Safety 59

PUX 101

PV 81

PVX 105

PX 95

Tool 129

Tubings 135

PV 22

In line quick exhaust valve

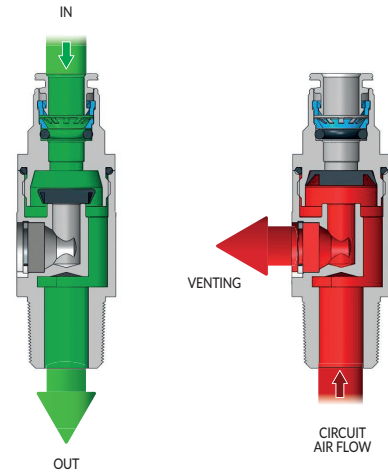
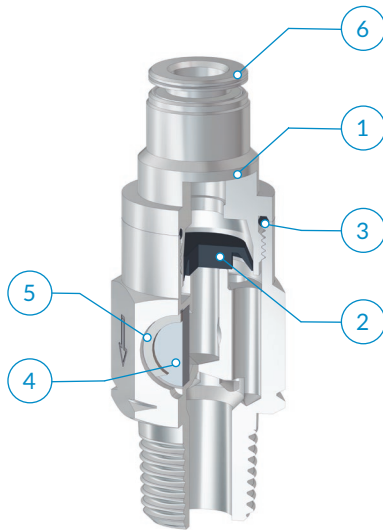
- 1 Body
Anodized aluminium Al2011
- 2 Lip ring
PU - NBR only for 1/4
- 3 Seals
NBR
- 4 Muffler
Stainless steel AISI 316
- 5 Seeger
Stainless steel AISI 302
- 6 Push-in fittings
PN line push-in fittings



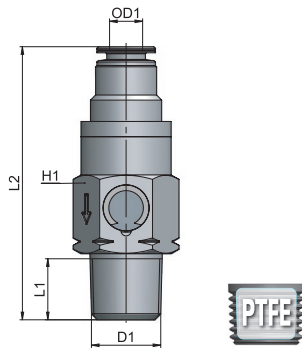
-4° + 176°F



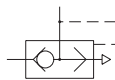
29 ÷ 145 PSI



Flow rate (at 87 PSI)	IN OUT	OUT VENT
	1→2	2→3
1/4	37 CFM	23 CFM
3/8	106 CFM	67 CFM
1/2	121 CFM	81 CFM



Type	OD1	D1	L1	L2	H1	oz
22 1/4 1/4	1/4	1/4 NPTF	.512	2.106	.709	.695
22 3/8 3/8	3/8	3/8 NPTF	.512	2.598	1.063	-
22 1/2 1/2	1/2	1/2 NPTF	.669	3.110	1.339	-



This valve can easily vent the circuit in case of an air supply failure. If assembled on the cylinder port, it increases the cylinder speed.

Recommended tubings:

According to the fitting connected to the valve.

Application field:

Pneumatic installations fed with filtered, lubricated air.

PV 27

Quick exhaust valve

1 Body
Brass UNI EN 12165 CW617N, nickel plated

2 Lip ring
PU - NBR only for M5

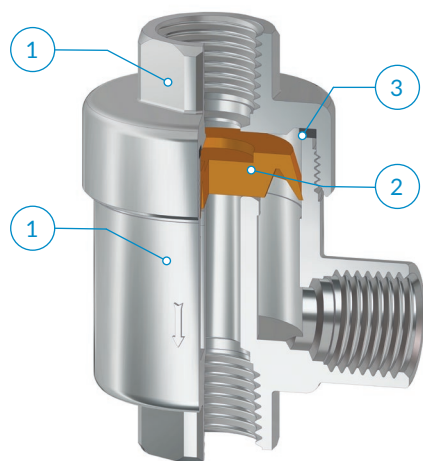
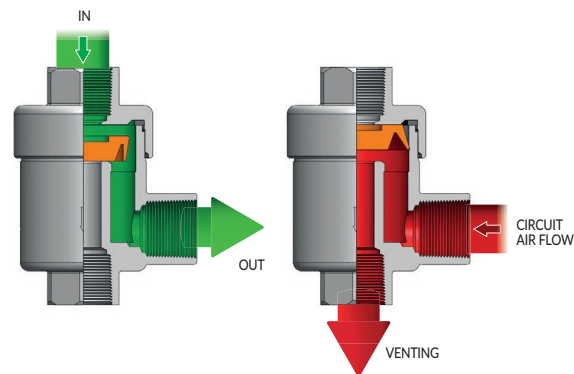
3 Gasket
PA6



-4° + 176°F



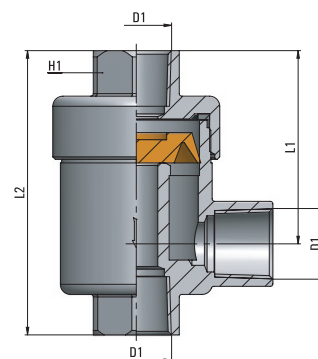
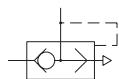
29 + 145 PSI



Flow rate (at 87 PSI)	IN OUT	OUT VENT
	1→2	2→3
1/8	16 CFM	27 CFM
1/4	28 CFM	65 CFM
3/8	41 CFM	92 CFM
1/2	44 CFM	187 CFM
3/4*	54 CFM	117 CFM

*Flow rate at 43.5 PSI

Type	D1	L1	L2	H1	oz
27 00 1/8	1/8 NPTF	1.102	1.654	.551	2.970
27 00 1/4	1/4 NPTF	1.358	2.087	.748	5.210
27 00 3/8	3/8 NPTF	1.417	2.165	.827	5.775
27 00 1/2	1/2 NPTF	1.732	2.795	1.024	11.108
27 00 3/4	3/4 NPTF	2.165	3.543	1.260	18.025



i This valve can easily vent the circuit in case of an air supply failure. If assembled on the cylinder port, it increases the cylinder speed.

Recommended tubings:
According to the fitting connected to the valve.

Application field:
Pneumatic installations fed with filtered, lubricated air.

CO 67
MA 31
MM 115
PA 49
PE 45
PM 111
PN 19
PT 121
PU 55
PU Safety 59
PUX 101
PV 81
PVX 105
PX 95
Tool 129
Tubings 135

PV 45

Pilot operated check valve

- 1 Body

Brass UNI EN 12164 CW614N, nickel plated
- 2 Piston

Stainless steel AISI 304
- 3 Spring

Stainless steel AISI 302
- 4 Seals

NBR-PU
- 5 Push-in fittings

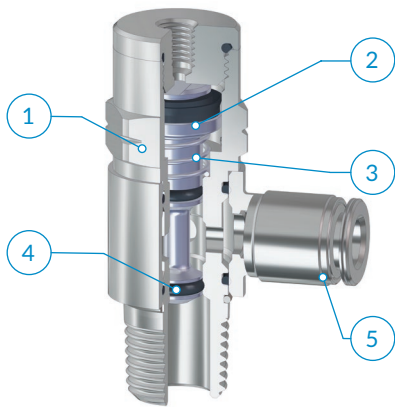
PN line push-in fittings



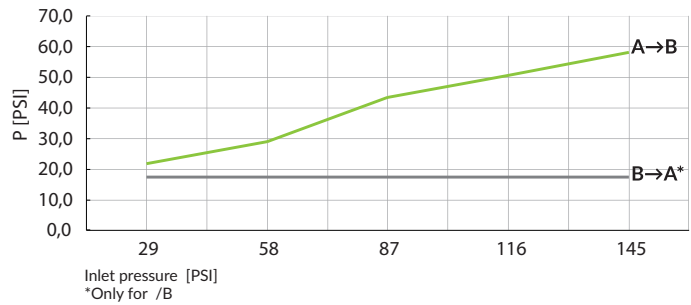
-4° + 176°F



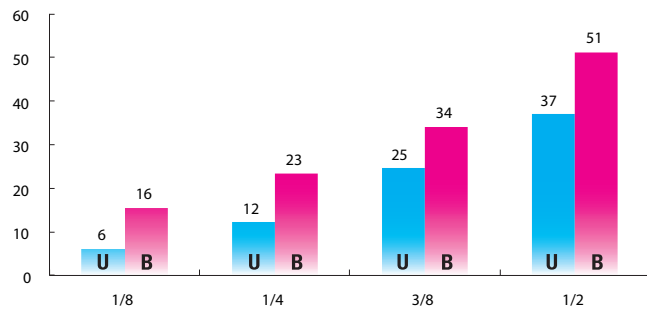
MAX 145 PSI



Cracking pressure P [PSI]



Flow capacity [CFM] 87 PSI - Δp 14.5



Should a sudden pressure failure happen, if the stop valves are assembled in pairs on the cylinder, the stop valves make sure, that the cylinder piston rapidly stops. By operating the override device, it is possible to reset manually the piston stroke, which is particularly important during a set-up phase or in case of air shortage.

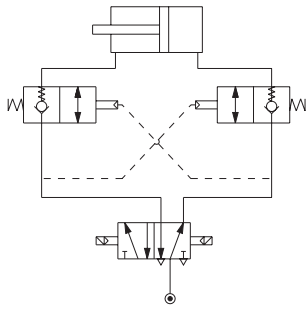
Recommended tubings:

According to the fitting connected to the valve.

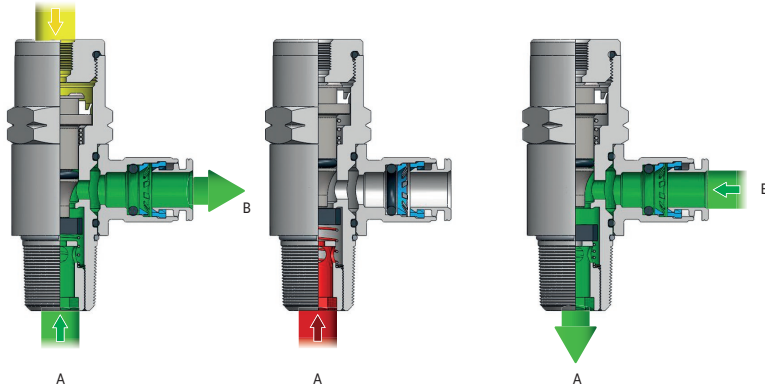
Application field:

Pneumatic installations fed with filtered, lubricated air.

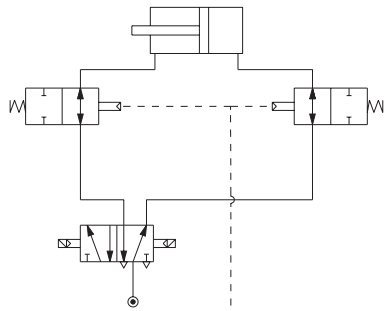
/U = One Way



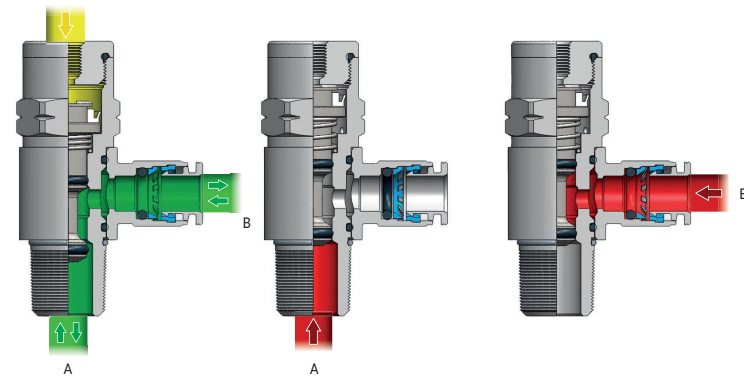
PILOT PRESSURE (P)



/B = Bidirectional



PILOT PRESSURE (P)

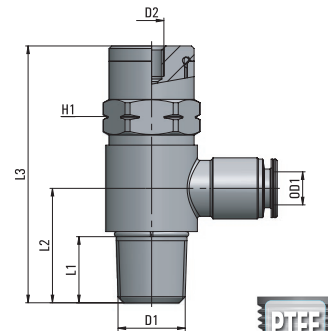
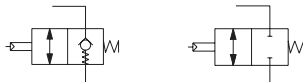


Type	OD1	D1	D2	L1	L2	L3	H1	oz
PV45 1/4 1/8 /B	1/4	1/8NPTF	10-32UNF	.374	.669	1.744	.512	1.415
PV45 1/4 1/4 /B	1/4	1/4NPTF	10-32UNF	.551	.886	1.988	.669	2.463
PV45 3/8 3/8 /B	3/8	3/8NPTF	1/8NPTF	.551	.945	2.303	.787	4.149
PV45 1/2 1/2 /B	1/2	1/2NPTF	1/8NPTF	.717	1.189	2.665	.984	6.837
PV45 1/4 1/8 /U	1/4	1/8NPTF	10-32UNF	.331	.669	1.685	.512	1.436
PV45 1/4 1/4 /U	1/4	1/4NPTF	10-32UNF	.512	.846	1.988	.669	2.530
PV45 3/8 3/8 /U	3/8	3/8NPTF	1/8NPTF	.512	.984	2.244	.787	4.184
PV45 1/2 1/2 /U	1/2	1/2NPTF	1/8NPTF	.669	1.209	2.665	.984	6.999

.../U = One way

.../B = Bidirectional

Available as:



CO 67

MA 31

MM 115

PA 49

PE 45

PM 111

PN 19

PT 121

PU 55

PU Safety 59

PUX 101

PV 81

PVX 105

PX 95

Tool 129

Tubings 135

PV 46

Pneumatic switch

- 1 Body
Brass UNI EN 12164 CW614N, nickel plated
- 2 Handle
- 3 Seals
NBR
- 4 Spring
Stainless steel AISI 302
- 5 Push-in fittings
PN line push-in fittings



-4° + 176°F

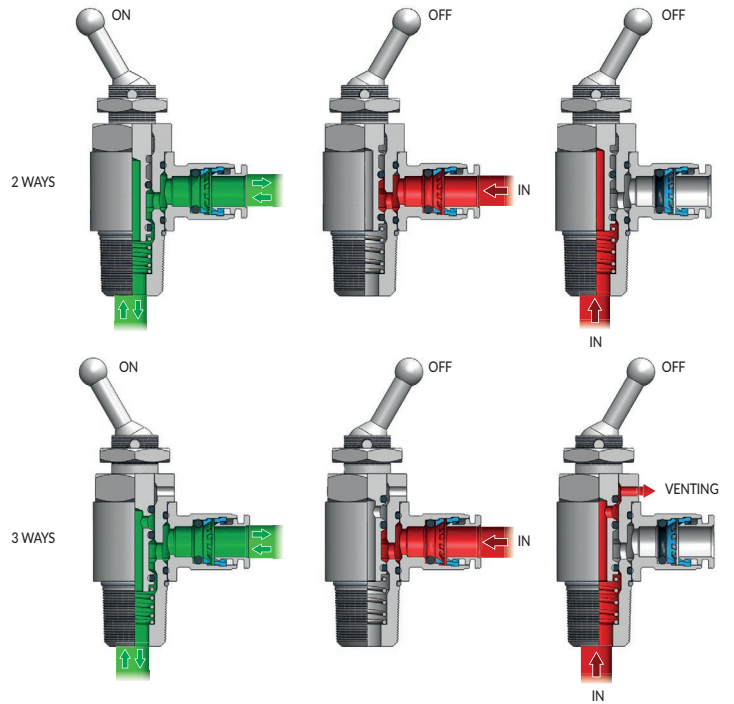
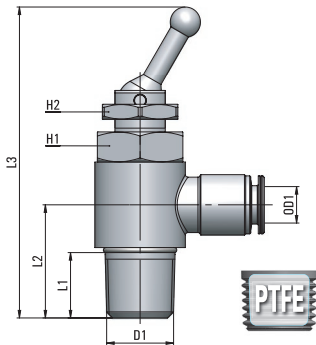
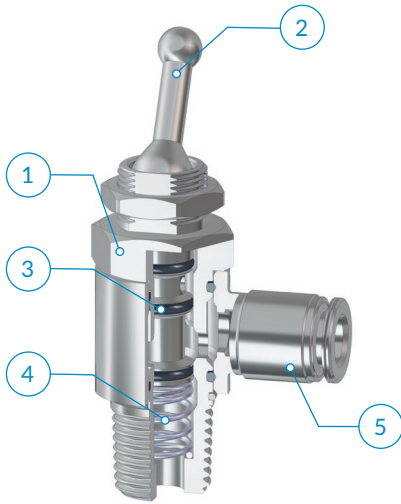


MAX 218 PSI

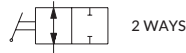


Flow rate
(87 PSI - Δp = 14.5)

1/8	8 CFM
1/4	9 CFM



Type	OD1	D1	L1	L2	L3	H1	H2	oz Δ
46 1/4 1/8	1/4	1/8 NPTF	.374	.669	2.138	.551	.591	1.404
46 1/4 1/4	1/4	1/4 NPTF	.551	.886	2.433	.551	.591	2.233





i The PV 46 is a pneumatic switch. It is available in a 2/2 and 3/2-way version. The goal of the 2/2 way switch is to cut off the flow in the circuit whenever needed by simply operating the lever. The 3/2 way valve cuts off the flow and vents to atmosphere the terminal part of the circuit.

Recommended tubings:
According to the fitting connected to the valve.

Application field:
Pneumatic installations fed with filtered, lubricated air.

PV 11

Air mufflers

	Body	Muffler		
PV11-FE	Brass UNI EN 12164 CW614N nickel plated	Stainless steel AISI 304	0 ÷ 174 PSI	14° ÷ 160°F
PV11-BE	Brass UNI EN 12164 CW614N	Sintered bronze 89/11	0 ÷ 174 PSI	14° ÷ 160°F

CO 67

MA 31

MM 115

PA 49

PE 45

PM 111

PN 19

PT 121

PU 55

PU Safety 59

PUX 101

PV 81

PVX 105


PX 95

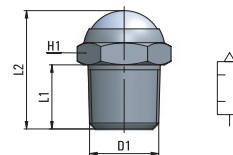
Tool 129

Tubings 135

PV 11-FE


Air muffler with stainless steel wire

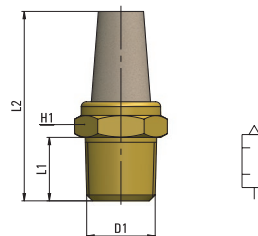
Type	D1	L1	L2	H1	oz 
11 00 1/8-FE	1/8 NPTF	.236	.591	.512	.219
11 00 1/4-FE	1/4 NPTF	.433	.866	.630	.438
11 00 3/8-FE	3/8 NPTF	.433	.906	.748	.671
11 00 1/2-FE	1/2 NPTF	.512	.984	.945	.978

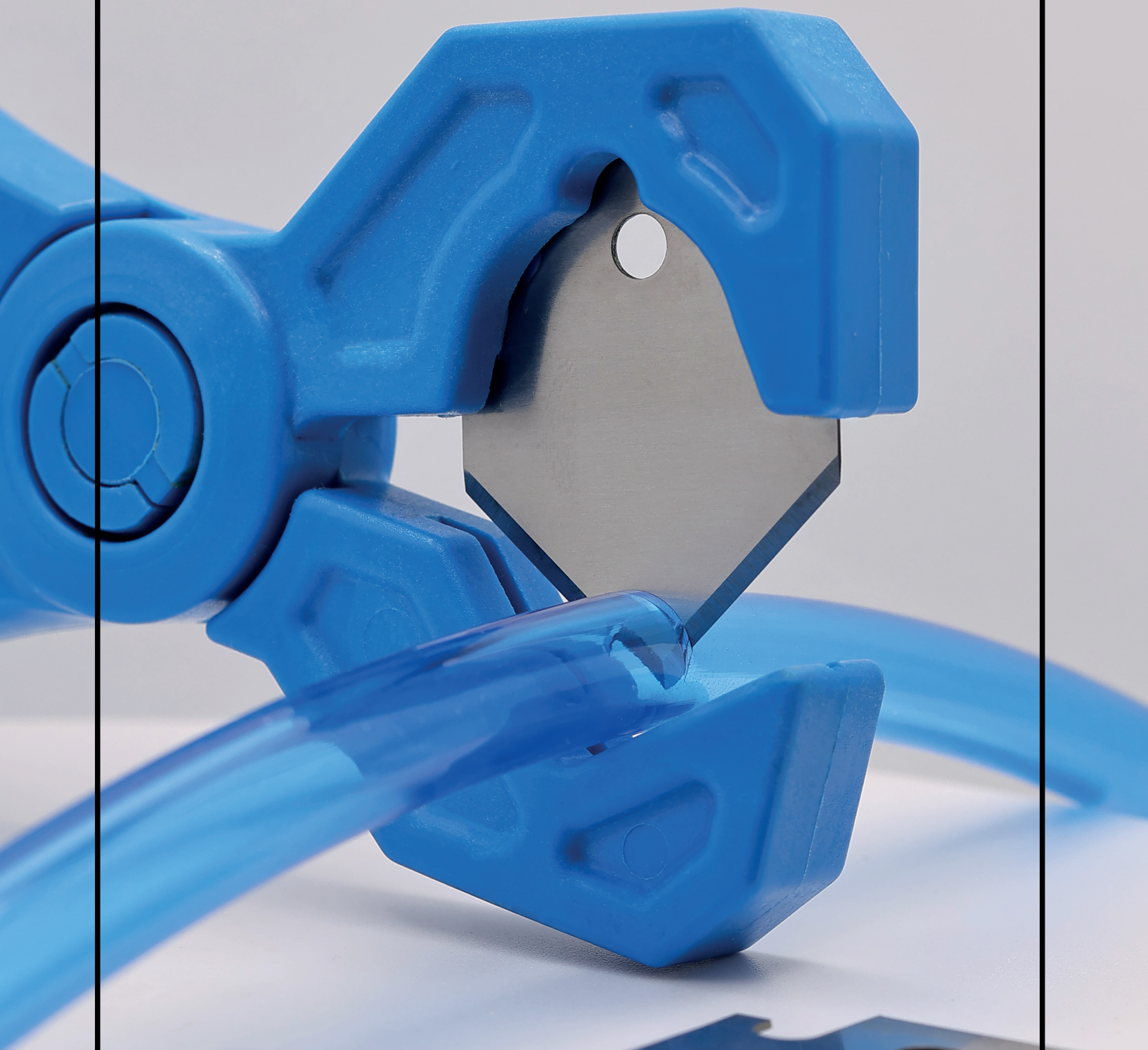


PV 11-BE

Sintered bronze air muffler

Type	D1	L1	L2	H1	oz 
11 00 1/8-BE	1/8 NPTF	.236	1.142	.512	.318
11 00 1/4-BE	1/4 NPTF	.433	1.417	.630	.600
11 00 3/8-BE	3/8 NPTF	.433	1.693	.748	1.023
11 00 1/2-BE	1/2 NPTF	.512	1.929	.945	1.623





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