PV LINE


PV 18


PV 41


PV 21


PV 23


PV 33


PV 26


PV 22


PV 27

64_72

PV 18
PV 41
PV 21
PV 23
PV 33
PV 26
PV 22
PV 27


PV 45


PV 46

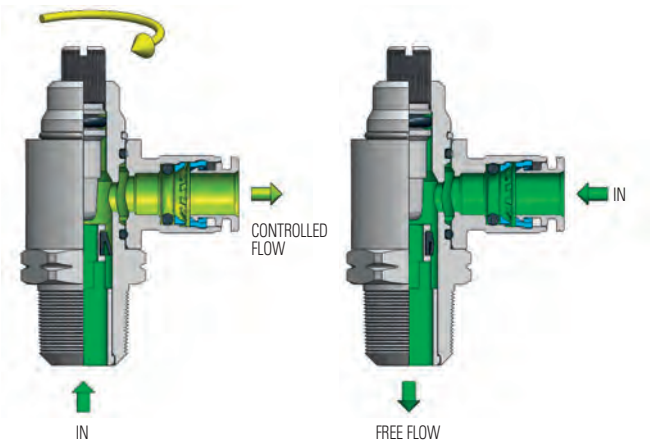

PV 11-FE


PV 11-BE

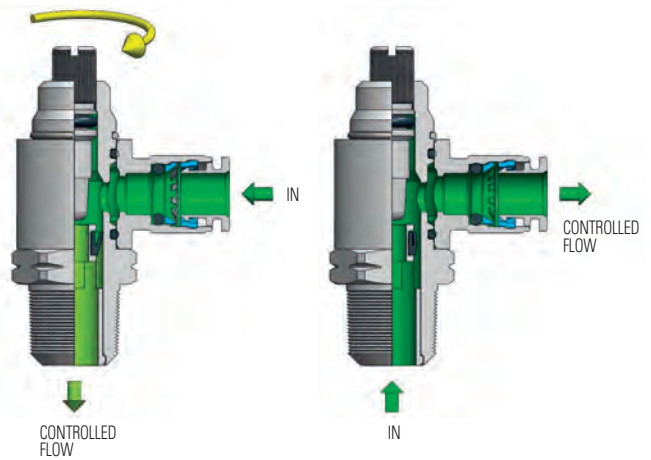
74_77

PV 45
PV 46
PV 11-FE
PV 11-BE

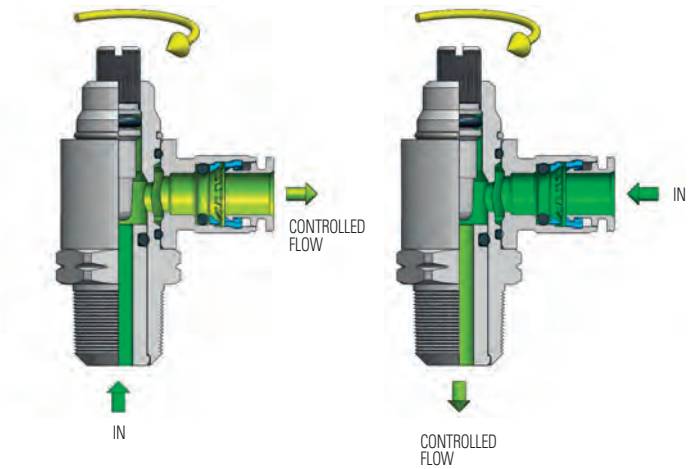
…/C = Meter Out



…/V = Meter In



…/B = Bidirectional



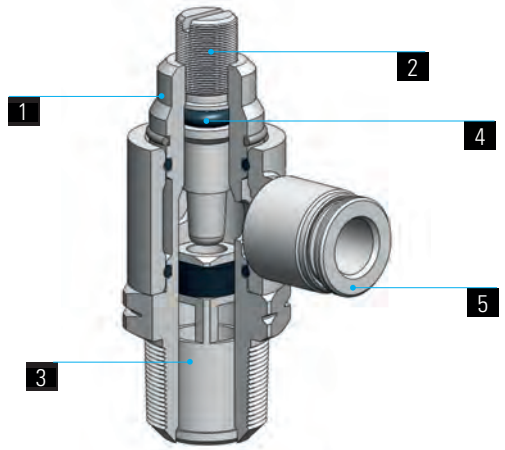
FLOW CONTROLS

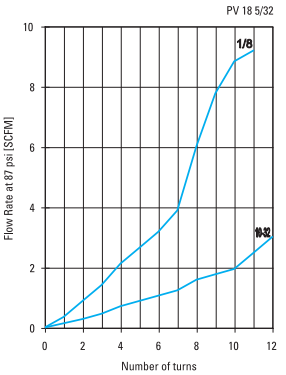
C.MATIC flow controls can adjust the flow in pneumatic circuit or control the speed of a pneumatic cylinder.
Depending on the flow control version used, the setting can be made both ways (Bidirectional version), or just one way (Meter Out or Meter In version).
The One way version is particulary used to adjust the speed of pneumatic cylinders.

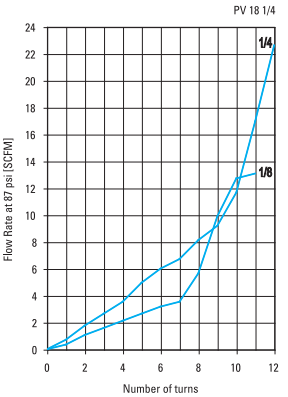
To tighten threads, please check out our tightening torque chart illustrated at page 4.

PV 18 FLOW CONTROL

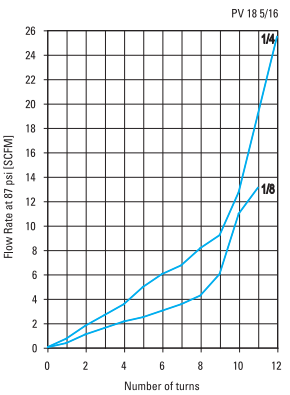
1	2	3	4	5
Body	Needle	Cartridge	Seals	Push-in fittings
Brass UNI EN 12164 CW614N Nickel plated			NBR	PN line push-in fittings

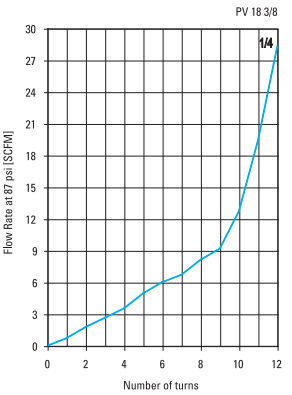






The banjo ring swivels also after flow control installation.



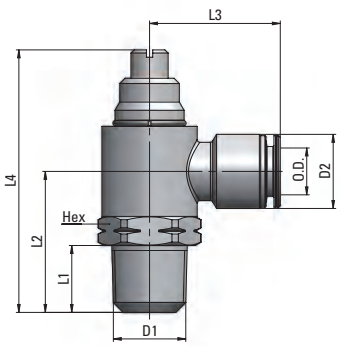


DATA SHEET

Recommended tubings:
PA 6, PA 11, PA 12, Polyethylene, Polyurethane (95 durometer or above).
Working Temperature:
from 32 °F up to158 °F
Working Pressure:
from 0 up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 18

Flow control with swivel push-in fitting



Part Number	Tube OD	D1 UNF	D2	L1	L2	L3	L4	HEX (mm)	oz
18 5/32 10-32	5/32	10-32	.374	.197	.531	.728	1.063	6	-

Part Number	Tube OD	D1 NPTF	D2	L1	L2	L3	L4	HEX	oz
18 5/32 1/8	5/32	1/8	.374	.335	.848	.807	1.638	9/16	1.164
18 1/4 1/8	1/4	1/8	.472	.335	.848	.886	1.638	9/16	1.235
18 1/4 1/4	1/4	1/4	.472	.512	1.059	.945	1.969	11/16	2.116
18 5/16 1/8	5/16	1/8	.551	.335	.848	.906	1.638	9/16	-
18 5/16 1/4	5/16	1/4	.551	.512	1.059	.965	1.969	11/16	2.152
18 3/8 1/4	3/8	1/4	.630	.512	1.059	1.024	1.969	11/16	2.310

Available as:

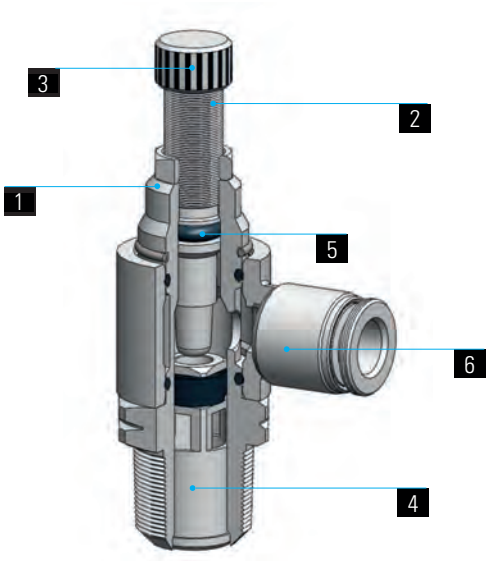
…/C = Meter Out

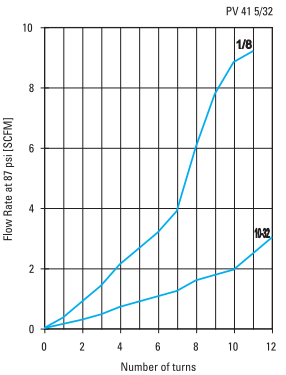
…/V = Meter In

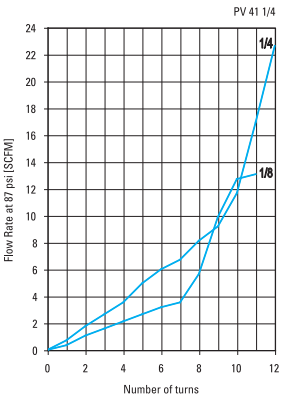
…/B = Bidirectional

PV 41 FLOW CONTROL

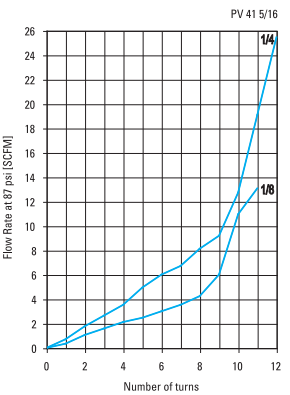
1	2	3	4	5	6
Body	Needle	Handwheel	Cartridge	Seals	Push-in fittings
Brass UNI EN 12164 CW614N Nickel plated				NBR	PN line push-in fittings

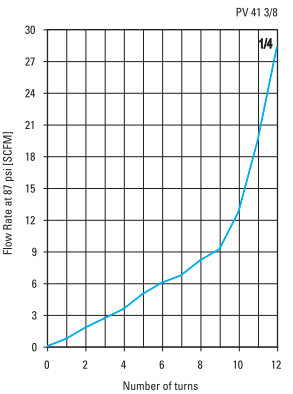






The banjo ring swivels also after flow control installation.



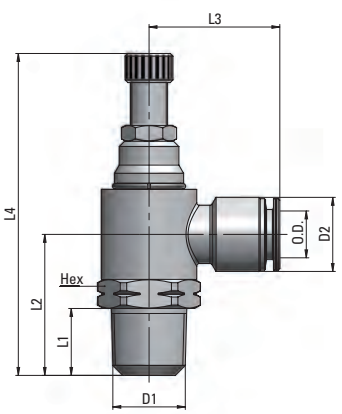


DATA SHEET

Recommended tubings:
PA 6, PA 11, PA 12, Polyethylene, Polyurethane (95 durometer or above)
Working Temperature:
from 32 °F up to158 °F
Working Pressure:
from 0 up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 41

Flow Control with brass swivelling push-in fitting and handwheel adjustment



Part Number	Tube OD	D1 UNF	D2	L1	L2	L3	L4	HEX (mm)	oz
41 5/32 10-32	5/32	10-32	.374	.197	.531	.728	1.594	6	-

Part Number	Tube OD	D1 NPTF	D2	L1	L2	L3	L4	HEX	oz
41 5/32 1/8	5/32	1/8	.374	.335	.848	.807	2.047	9/16	-
41 1/4 1/8	1/4	1/8	.472	.335	.848	.886	2.047	9/16	1.340
41 1/4 1/4	1/4	1/4	.472	.512	1059	.945	2.421	11/16	2.346
41 5/16 1/8	5/16	1/8	.551	.335	.848	.906	2.047	9/16	-
41 5/16 1/4	5/16	1/4	.551	.512	1.059	.965	2.421	11/16	2.363
41 3/8 1/4	3/8	1/4	.630	.52	1.059	1.024	2.421	11/16	2.469

Available as:

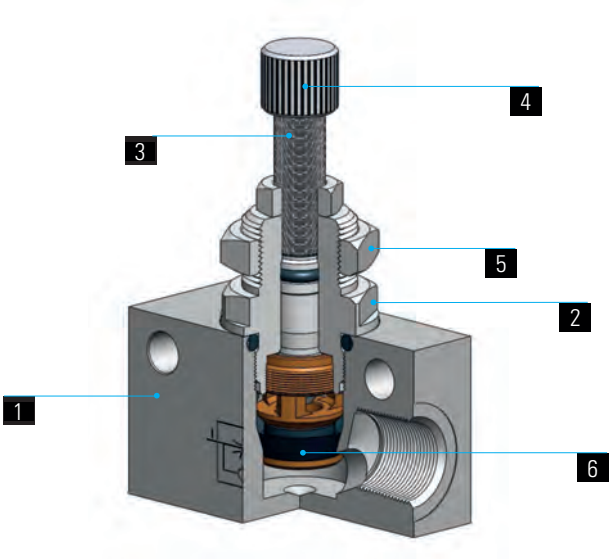
…/C = Meter Out

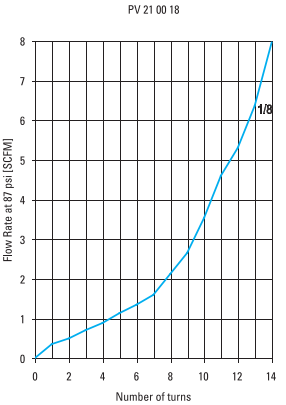
…/V = Meter In

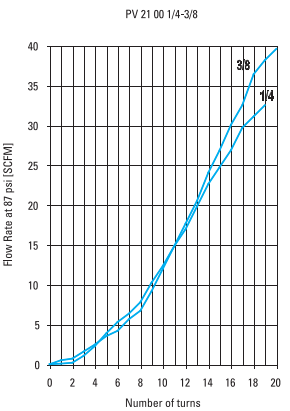
…/B = Bidirectional

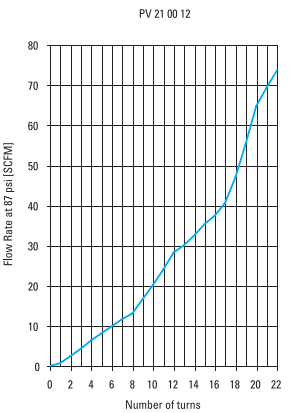
PV 21 FLOW CONTROL

1	2	3	4	5	6
Body	Valve	Needle	Handwheel	Nut	Seals
Anodized aluminium	Brass UNI EN 12164 CW614N Nickel plated				NBR







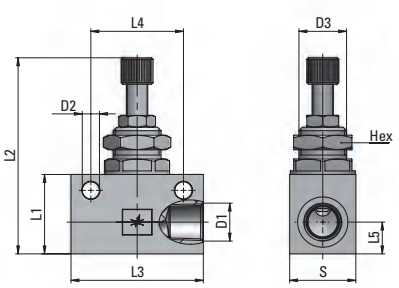


DATA SHEET

Recommended tubings:
according to the fitting connected to the flow control.
Working Temperature:
from 32 °F up to158 °F
Working Pressure:
from 0 up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 21

Line Flow Control - Needle Valve



Part Number	D1 NPTF	D2	D3	L1	L2	L3	L4	L5	S	HEX (mm)	oz
21 00 18	1/8	.177	M12x0,75	.827	1.909	1.339	.945	.315	.630	15	1.728
21 00 14	1/4	.256	M18x1,5	1.181	2.953	1.969	1.378	.472	.984	22	5.785
21 00 38	3/8	.256	M18x1,5	1.181	2.953	2.283	1.575	.472	.984	22	6.074
21 00 12	1/2	.256	M22x1,5	1.575	3.799	2.559	1.969	.669	1.181	26	10.617

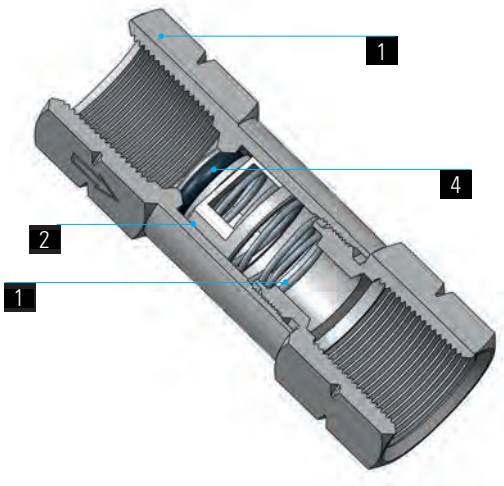
Available as:

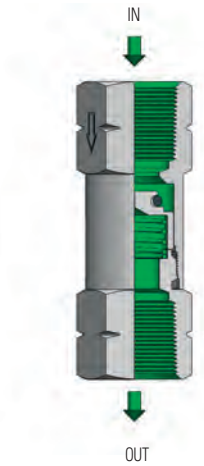
…/U = One way

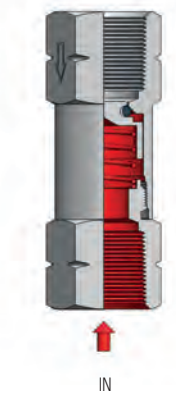
…/B = Bidirectional

PV 23 CHECK VALVE

1	2	3	4
Body	Valve	Spring	Seals
Brass UNI EN 12164 CW614N Nickel plated		Stainless Steel AISI 302	NBR







Flow rate at 87 psi:

PV23 00 18	33 SCFM
PV23 00 14	57 SCFM
PV23 00 38	86 SCFM
PV23 00 12	124 SCFM

CHECK VALVE

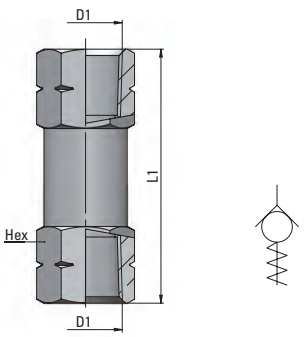
The flow is allowed only in one way (the arrow direction engraved on the body) and stopped in the reverse way.

DATA SHEET

Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 32 °F up to158 °F
Cracking Pressure:
2.9 psi
Working Pressure:
from 0 up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 23

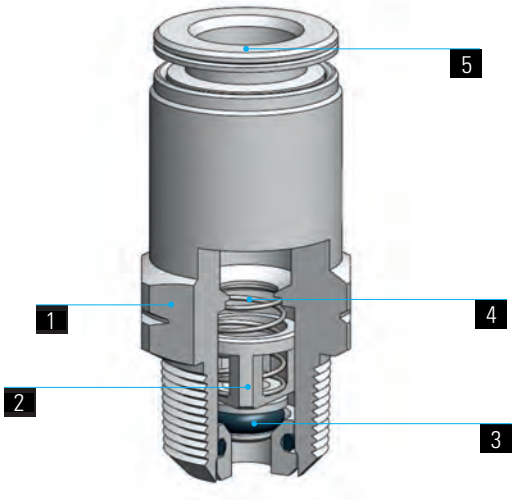
Check Valve

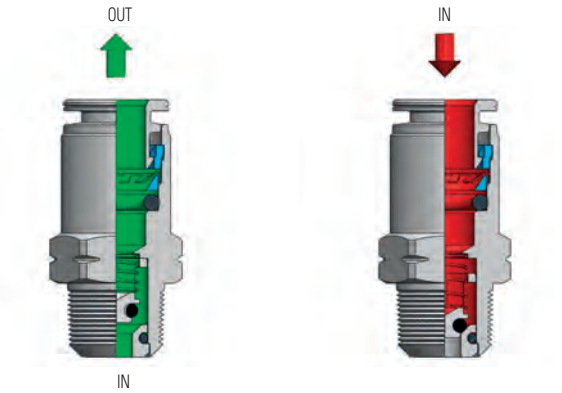


Part Number	D1 NPTF	L1	HEX (mm)	oz
23 00 18	1/8	1.555	13	.956
23 00 14	1/4	1.890	16	1.513
23 00 38	3/8	2.047	20	2.624
23 00 12	1/2	2.441	24	4.289

PV 33 CHECK VALVE

1	2	3	4	5
Body	Valve	Seals	Spring	Push-in fittings
Brass UNI EN 12164 CW614N Nickel plated		NBR	Stainless Steel AISI 302	PN line push-in fittings





Meter Out Version

CHECK VALVE

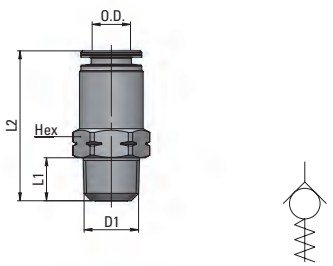
The flow is allowed only in one way (the arrow direction engraved on the body) and stopped in the reverse way.

DATA SHEET

Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 32 °F up to158 °F
Cracking Pressure:
2.9 psi
Working Pressure:
from 0 up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 33

Straight connection with check valve

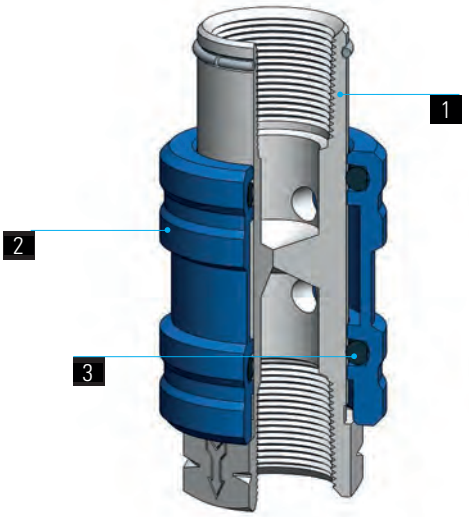


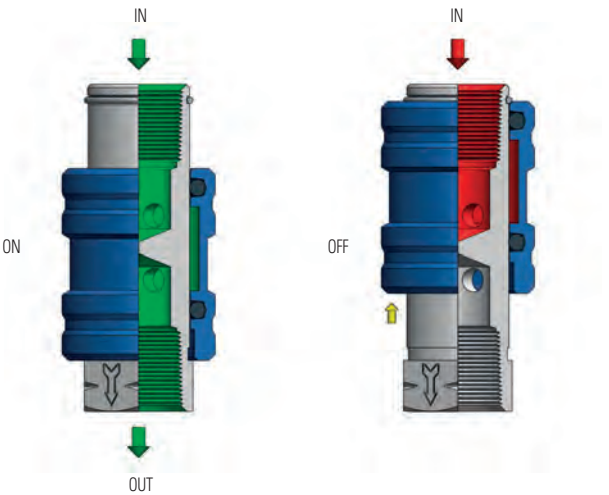
Meter Out Version

Part Number	Tube OD	D_1 NPTF	L_1	L_2	HEX (mm)	oz
33 1/4 1/8	1/4	1/8	.334	1.122	13	-
33 1/4 1/4	1/4	1/4	.511	1.26	14	-

PV 26 SLIDE VALVE

1	2	3
Body	Sleeve	Seals
Brass UNI EN 12164 CW614N Chrome plated	Anodized aluminium	NBR





Flow rate at 87 psi:	Supply
1/8	39.89 SCFM
1/4	68.48 SCFM
3/8	115.43 SCFM
1/2	178.27 SCFM

SLIDE VALVE

The valve is used to section a pneumatic installation.

Sliding the sleeve on the rod, both ON and OFF positions can be achieved.

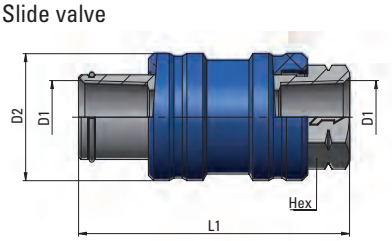
When the sleeve is against the rod hexagon, the flow goes in the arrow direction (ON); pushing it backwards the air supply is cut off and the installation is vented (OFF).

DATA SHEET

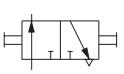
Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 14 °F up to 158 °F
Working Pressure:
from 0 up to 217 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 26

Slide valve

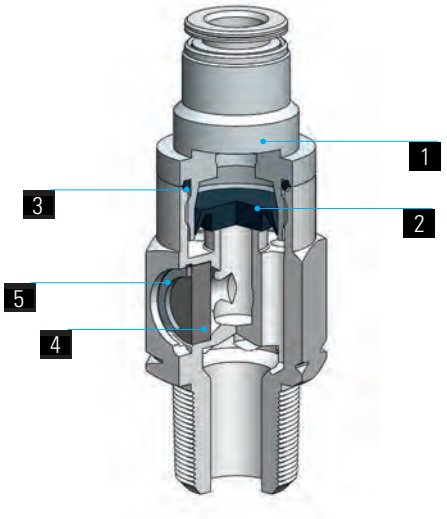


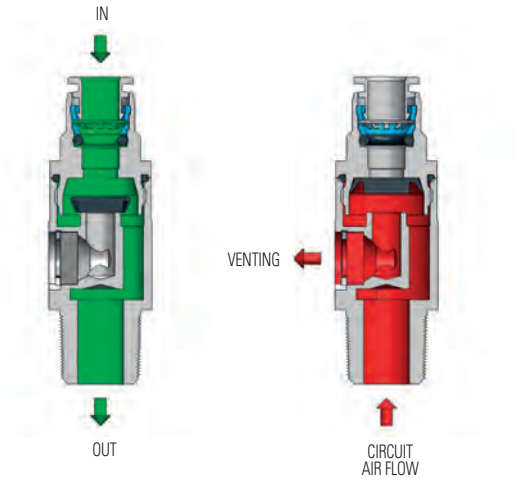
Part Number	$D_{1\ NPTF}$	D_2	L_1	HEX (mm)	oz
26 1/8 1/8	1/8	.827	1.909	14	1.764
26 1/4 1/4	1/4	.945	2.283	17	2.998
26 3/8 3/8	3/8	1.220	2.323	22	-
26 1/2 1/2	1/2	1.378	2.854	26	-



PV 22 LINE QUICK EXHAUST VALVE

1	2	3	4	5
Body	Lip ring	Seals	Muffler	Seeger
Anodised Aluminium	PU - NBR only for 1/4	NBR	Stainless Steel AISI 316	C75 Steel zinc coated





Flow rate at 87 psi:	Supply	Venting
1/4	44.16 SCFM	28.27 SCFM
3/8	77.74 SCFM	67.14 SCFM
1/2	123.67 SCFM	83.04 SCFM

LINE QUICK EXHAUST VALVE

This valve can easily vent the circuit in case of an air supply failure.

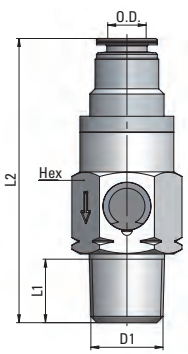
If assembled on the cylinder port, it increases the cylinder speed.

DATA SHEET

Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 14 °F up to 158 °F
Working Pressure:
from 29 psi up to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 22

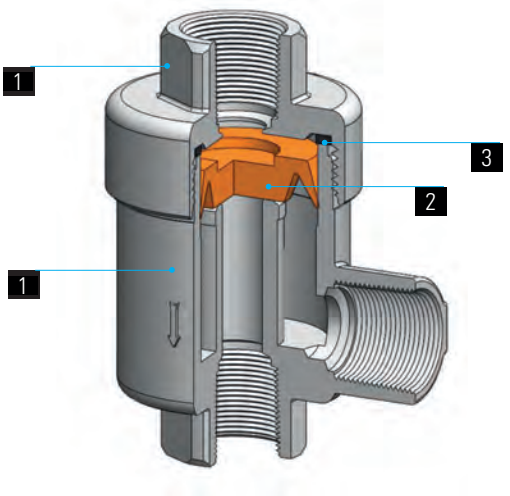
Line Quick Exhaust valve

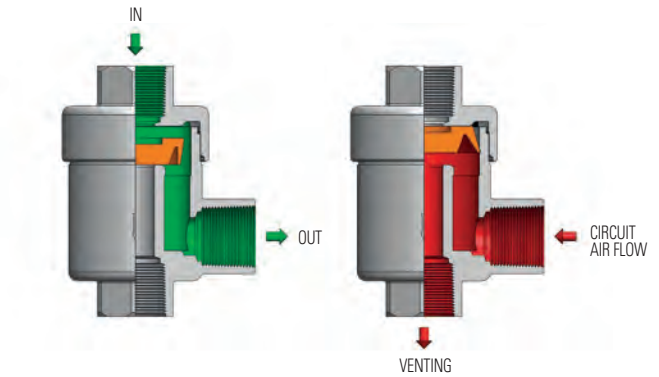


Part Number	Tube OD	D_1 NPTF	L_1	L_2	HEX (mm)	oz
22 1/4 1/4	1/4	1/4	.512	2.213	18	-
22 3/8 3/8	3/8	3/8	.512	2.709	27	-
22 1/2 1/2	1/2	1/2	.669	3.224	34	-

PV 27 QUICK EXHAUST VALVE

1	2	3
Body	Lip ring	Gasket
Brass UNI EN 12165 CW617N Nickel plated	PU - NBR only for M5	PA6





Flow rate at 87 psi:	Supply	Venting
PV27 1/8 1/8	41.34 SCFM	49.47 SCFM
PV27 1/4 1/4	113.07 SCFM	116.61 SCFM
PV27 3/8 3/8	127.21 SCFM	133.57 SCFM
PV27 1/2 1/2	208.48 SCFM	265.02 SCFM
PV27 3/4 3/4*	109.54 SCFM	222.61 SCFM

* Flow rate at 43.5 psi

QUICK EXHAUST VALVE

This valve can easily vent the circuit in case of an air supply failure.

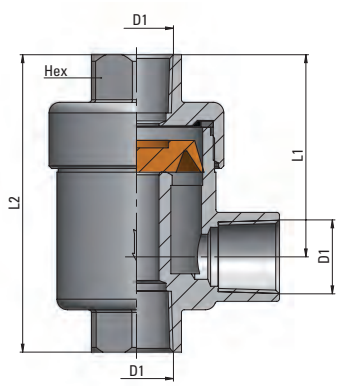
If assembled on the cylinder port, it increases the cylinder speed.

DATA SHEET

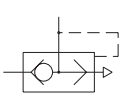
Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 14 °F up to 158 °F
Working Pressure:
from 29 psi to 145 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

PV 27

Quick Exhaust valve

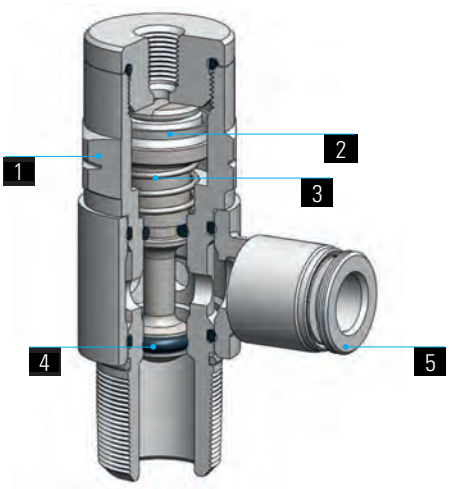


Part Number	$D_{1\ NPTF}$	L_1	L_2	HEX (mm)	oz
27 00 18	1/8	1.063	1.654	15	3.351
27 00 14	1/4	1.378	2.126	19	5.573
27 00 38	3/8	1.378	2.126	19	5.644
27 00 12	1/2	1.772	2.835	26	11.464

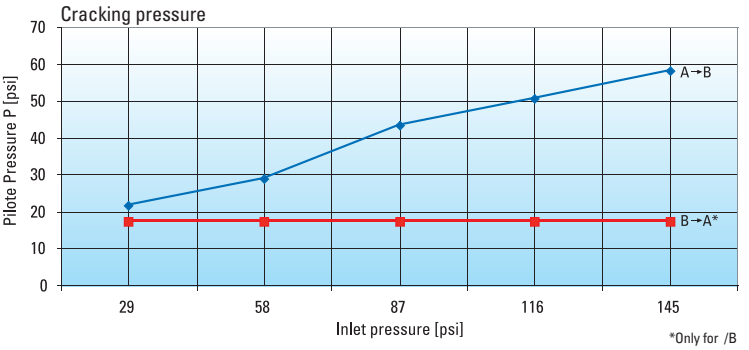


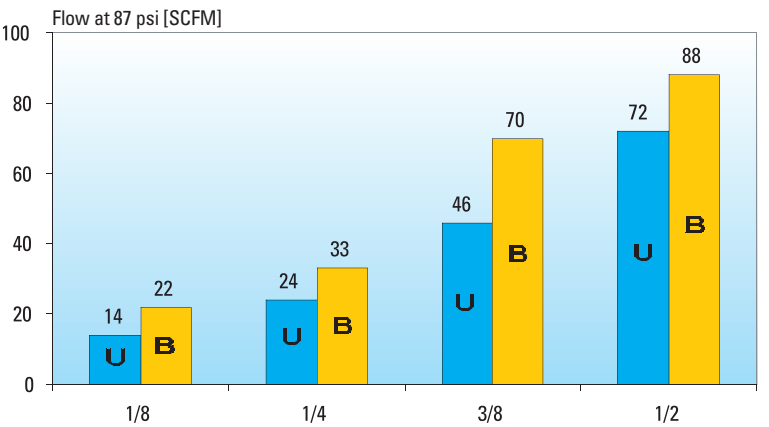
PV 45 PILOT OPERATED CHECK VALVE

1	2	3	4	5
Body	Piston	Spring	Seals	Push-in fittings
Brass UNI EN 12164 CW614N Nickel plated	Stainless Steel AISI 304	Stainless Steel AISI 302	NBR-PU	PN line push-in fittings



The banjo ring swivels also after flow control installation.





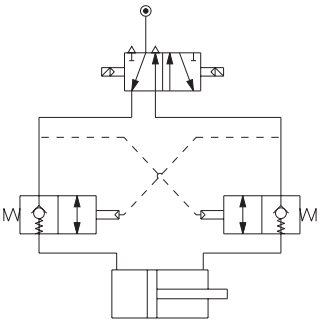
PILOT OPERATED CHECK VALVE

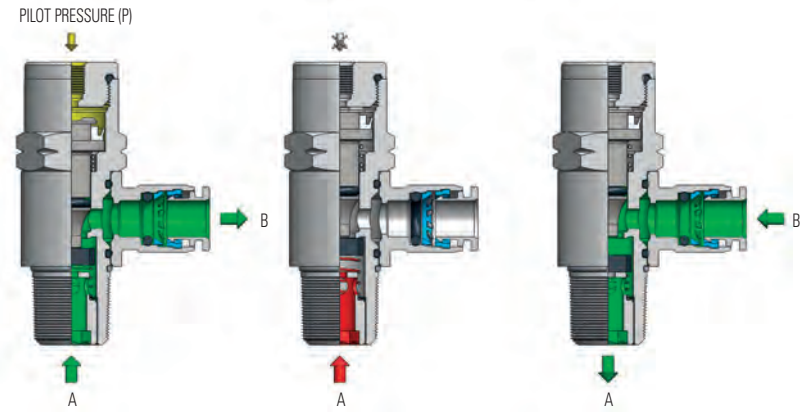
The Pilot Operated check valve allows the flow only when a pilot signal is applied to the pilot port; if assembled in pair on the cylinder ports, in case of sudden pressure drops the pilot Opereted Check Valve immediatly stops the cylinder piston stroke.

DATA SHEET

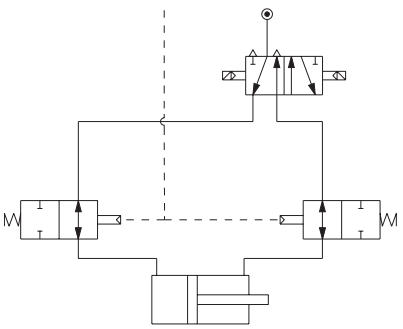
Recommended tubings:
according to the fitting connected to the stop valve.
Working Temperature:
from 23 °F up to 158 °F
Working Pressure:
from 29 psi up to 145 psi
Application field:
pneumatic circuits fed with filtered, lubricated air.

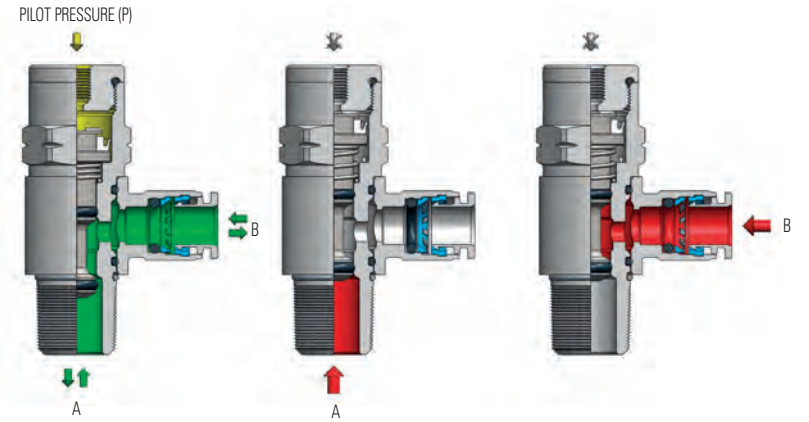
/U = One Way





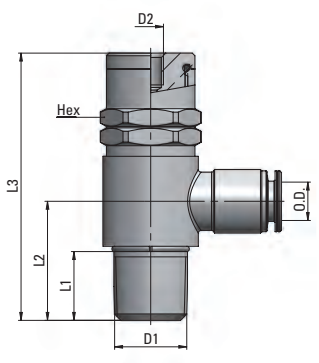
/B = Bidirectional





PV 45

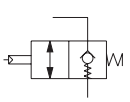
Piloted Operated Check valve



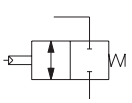
Part Number	Tube OD	D_1 NPTF	D_2	L_1	L_2	L_3	HEX (mm)	oz
45 1/4 1/8	1/4	1/8	10-32	.331	.669	1.744	13	1.436
45 1/4 1/4	1/4	1/4	10-32	.512	.846	1.988	17	2.529
45 3/8 3/8	3/8	3/8	1/8	.512	.984	2.303	20	4.183
45 1/2 1/2	1/2	1/2	1/8	.669	1.209	2.665	25	6.998

Available as:

…/U = One way



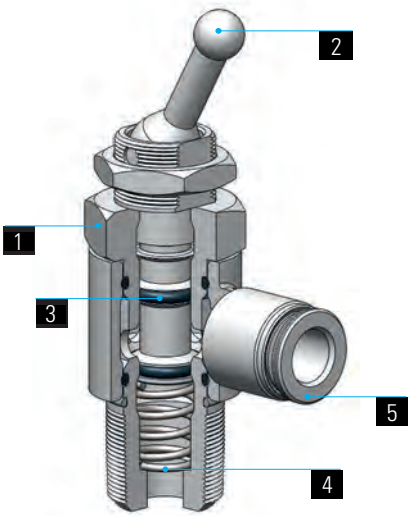
…/B = Bidirectional

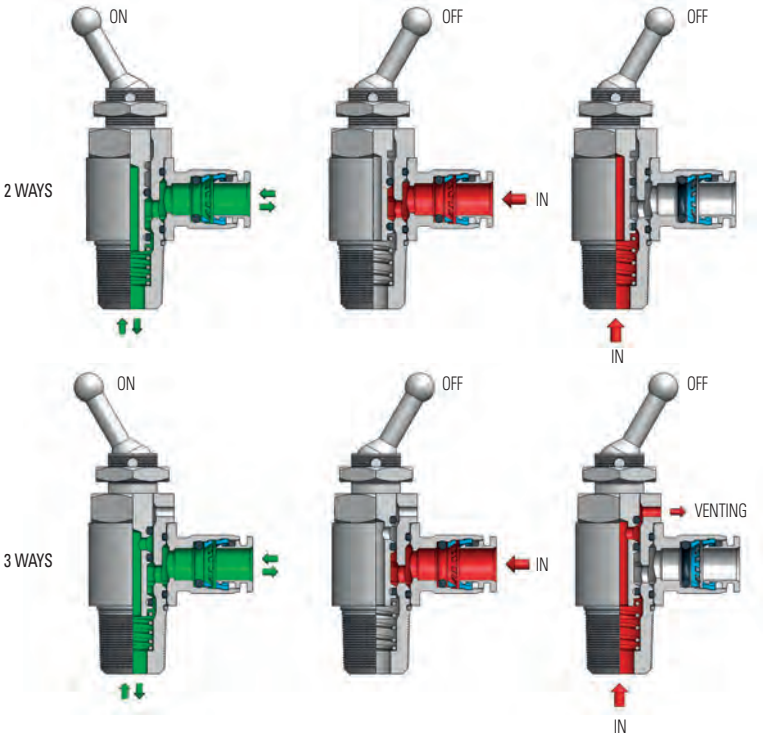


To tighten threads, please check out our tightening torque chart illustrated at page 4.

PV 46 PNEUMATIC SWITCH

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





Flow rate at 87 psi:

PV46 1/4 1/8	21.5 SCFM
PV46 1/4 1/4	30 SCFM

PNEUMATIC SWITCH

The PV46 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.

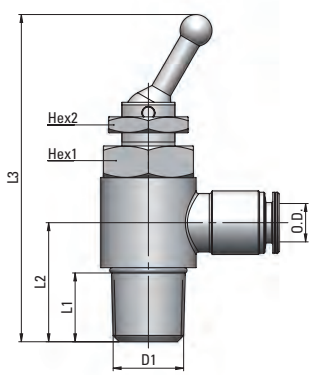
The 3/2 way valve cuts off the flow and vents to atmosphere the terminal part of the circuit .

DATA SHEET

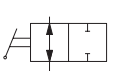
Recommended tubings:
according to the fitting connected to the valve.
Working Temperature:
from 14 °F up to 158 °F
Working Pressure:
from 0 up to 217 psi
Application field:
pneumatic installations fed with filtered, lubricated air.

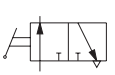
PV 46

Pneumatic switch



Part Number	Tube OD	D1 NPTF	L1	L2	L3	HEX1 (mm)	HEX2 (mm)	oz
46 1/4 1/8	1/4	1/8	.331	.591	2.264	14	15	1.404
46 1/4 1/4	1/4	1/4	.512	.807	2.559	17	15	2.233


2 WAYS


3 WAYS

To tighten threads, please check out our tightening torque chart illustrated at page 4.

MUFFLER

	Body	Muffler	Working pressure	Working temperature
PV11-FE	Brass UNI EN 12164 CW614N Nickel plated	Stainless Steel AISI 304	0 psi to 174 psi	14°F to 158°F
PV11-BE	Brass UNI EN 12164 CW614N	Sintered bronze	0 psi to 174 psi	14°F to 158°F

Noise level at 87 psi

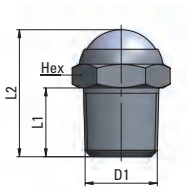
Type	1/8	1/4	3/8	1/2
PV11 -FE	74 dB	72 dB	88 dB	90 dB
PV11 -BE	75 dB	81 dB	82 dB	85 dB

Filtration threshold

Type	
PV11 -FE	100-200 µm
PV11 -BE	35 µm

PV 11-FE

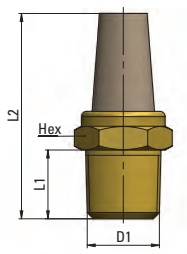
Air muffler with stainless steel wire



Part Number	D1 NPTF	L1	L2	HEX (mm)	oz
11 00 18 - FE	1/8	.236	.591	13	.19
11 00 14 - FE	1/4	.433	.866	16	.423
11 00 38 - FE	3/8	.433	.906	19	-
11 00 12 - FE	1/2	.512	.984	24	-

PV 11-BE

Sintered bronze air muffler



Part Number	D1 NPTF	L1	L2	HEX (mm)	oz
11 00 18 - BE	1/8	.236	1.142	13	-
11 00 14 - BE	1/4	.433	1.417	16	-
11 00 38 - BE	3/8	.433	1.693	19	-
11 00 12 - BE	1/2	.512	1.929	24	-