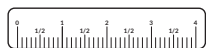


INCH



PV LINE



CN

EN

INCH/NPT功能接头

功能接头是在实现常规管道连接的同时, 兼具多种气动控制功能的管接头。其产品类型包括流量调节阀、单向阀、气动开关、压力调节器及消声器等。PV系列提供英制尺寸及NPT螺纹规格。

INCH/NPT 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 NPT threads.

PV Line

INCH/NPT功能接头

INCH/NPT Function Fittings

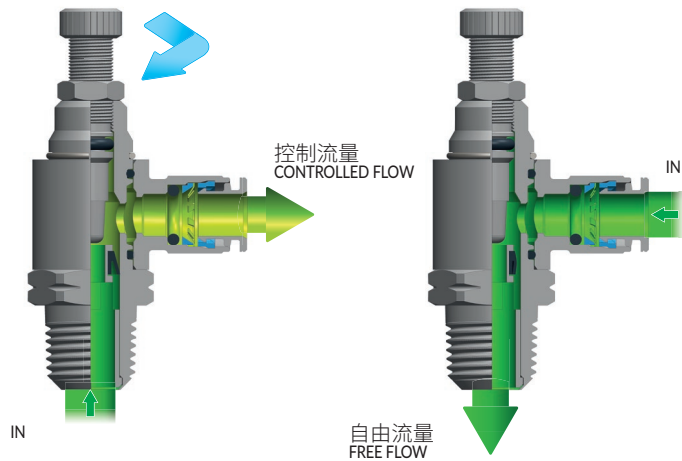
节流阀用于调节气路中流量, 根据应用类型, 可以分为双向节流阀和单向节流阀。其中单向节流阀非常适合进行气缸速度的调节。

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.

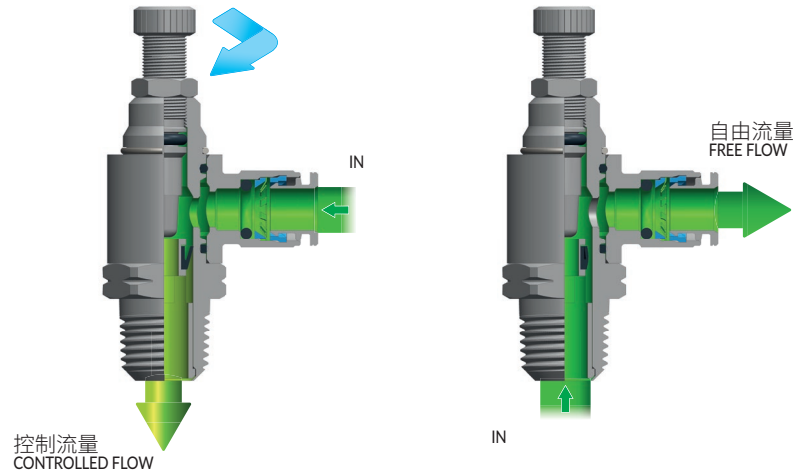
流量调节范围

Possible Flow Adjustments

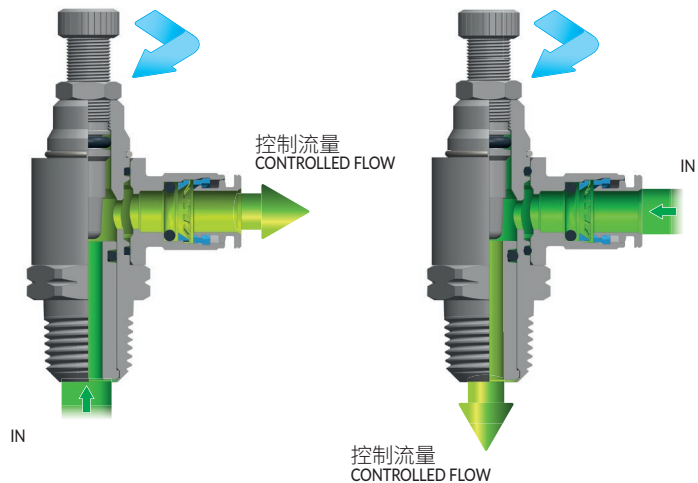
.../O = 排气节流
Meter out flow control



.../I = 进气节流
Meter in flow control



.../B = 双向流量调节
Bidirectional flow control



快插式可调节流阀

Flow control with swivel push-in fitting

- 1 本体
Body
- 2 针阀
Needle
- 3 插装阀芯
Cartridge
- 4 旋转螺丝刀槽
Knob and screwdriver slot

黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated

- 5 密封圈
Seals
- NBR
NBR

- 6 PN快插接头
PN line push-in fittings



-20° ÷ 80°C



10 bar



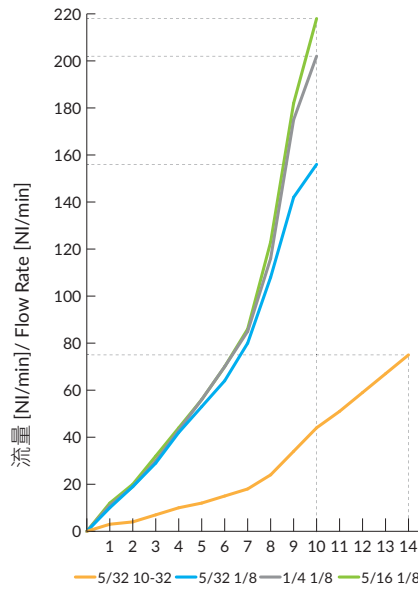
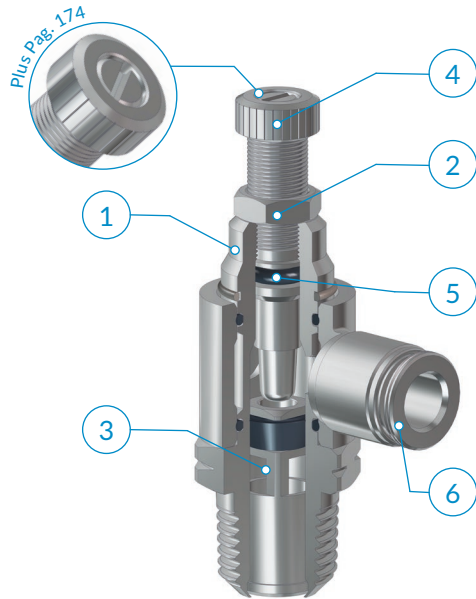
RoHS



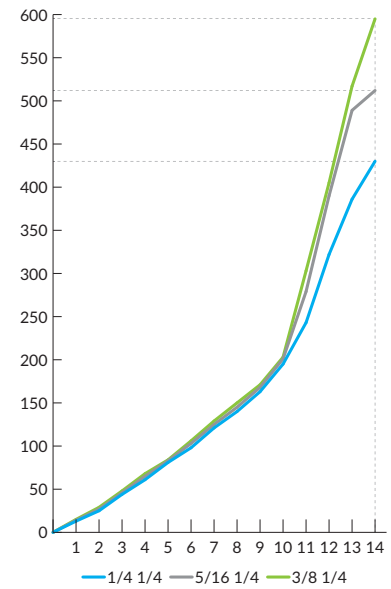
REACH



SILICONE FREE



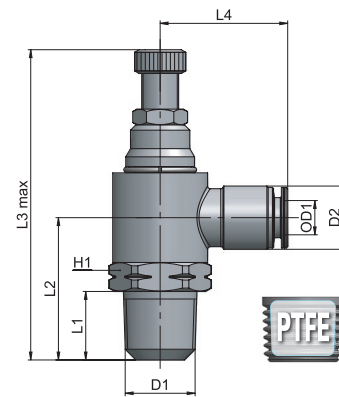
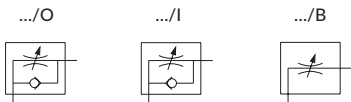
P = 6 bar - Δp = 1 bar



调节针圈数 / N° of needle turns

类型	OD1	D1	D2	L1	L2	L3 max	L4	H1	g ΔΔ
18 5/32 10-32	5/32	10-32 UNF	9,5	5	13,5	18,5	27	6	-
18 5/32 1/8	5/32	1/8 NPTF	9,5	8,2	21,2	20,5	41,2	9/16	35,5
18 1/4 1/8	1/4	1/8 NPTF	12	8,2	21,2	22,5	41,3	9/16	35,0
18 1/4 1/4	1/4	1/4 NPTF	12	12,7	26,7	24	49,6	11/16	50,0
18 5/16 1/8	5/16	1/8 NPTF	14	8,2	21,2	23	41,2	9/16	38,0
18 5/16 1/4	5/16	1/4 NPTF	14	12,7	26,7	24,5	49,6	11/16	61,0
18 3/8 1/4	3/8	1/4 NPTF	16	12,7	26,7	26,5	49,6	11/16	65,5

可用版本:
Available as:



节流阀安装完成后, 铰接头本体部分仍可自由转动。
The banjo ring swivels also after flow control installation.

建议的连接管路:
取决于与节流阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

- AP 55
- AR 63
- AV 221
- CO 157
- CX 255
- EV 217
- GU 119
- GU Safety 135
- GX 281
- GX Safety 291
- HP 317
- MA 27
- MB 41
- MC 83
- MF 235
- MM 333
- MO 93
- MP 323
- MT 339
- MV 171
- MX 241
- MY 229
- OX 261
- PA 113
- PE 79
- PM 329
- PN 67
- PT 347
- PU 131
- PU Safety 149
- PUX 287
- PV 203
- PVX 311
- PX 249
- QO 363
- RA 101
- RF 269
- RT 355
- RX 275
- Tools 369
- Tubings 375
- VF 295
- VT 359
- VX 299

PV 21

线型节流阀

In-line flow control

- 1** 本体
Body

阳极氧化铝 Al2011
Anodized aluminium Al2011
- 2** 阀芯
Valve

黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated
- 3** 阀针
Needle
- 4** 旋钮
Handwheel
- 5** 螺母
Nut
- 6** 密封圈
Seals

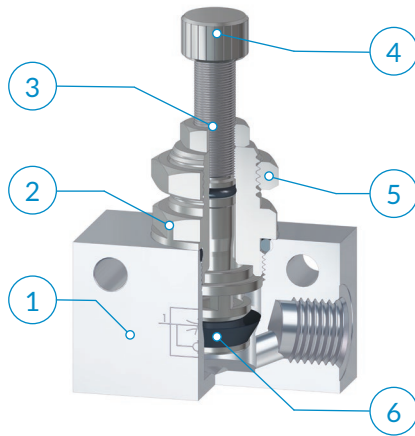
NBR
NBR



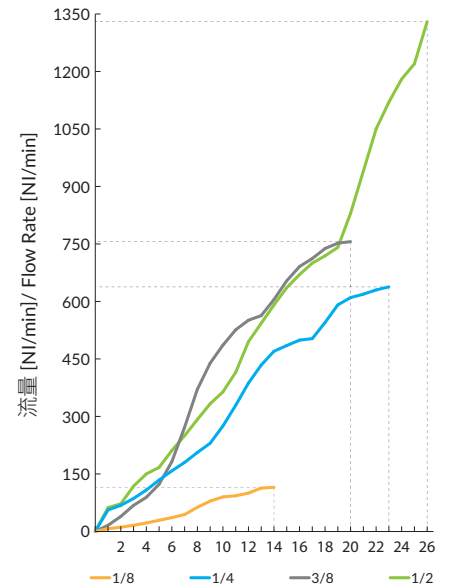
-20° ÷ 80°C



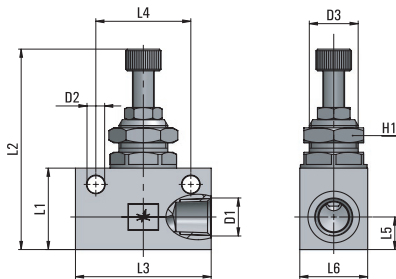
10 bar



P = 6 bar - Δp = 1bar

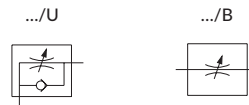


调节针圈数 / N° of needle turns



类型	D1	D2	D3	L1	L2 max	L3	L4	L5	L6	H1	g ΔΔ
21 00 1/8	1/8 NPTF	4,5	M12x0,75	21	49,4	34	24	8	16	15	49,5
21 00 1/4	1/4 NPTF	6,5	M18x1,5	30	75,2	50	35	12	25	22	162,5
21 00 3/8	3/8 NPTF	6,5	M18x1,5	30	75,2	58	40	12	25	22	169,1
21 00 1/2	1/2 NPTF	6,5	M22x1,5	40	93,1	65	50	17	30	26	301,0

可用版本:
Available as:



建议的连接管路:
取决于与节流阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

PV 23

PV
LINE

单向阀

Check valve

1 本体
Body
黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated

2 阀芯
Valve

3 弹簧
Spring
AISI 302 不锈钢
Stainless steel AISI 302

4 密封圈
Seals
NBR
NBR



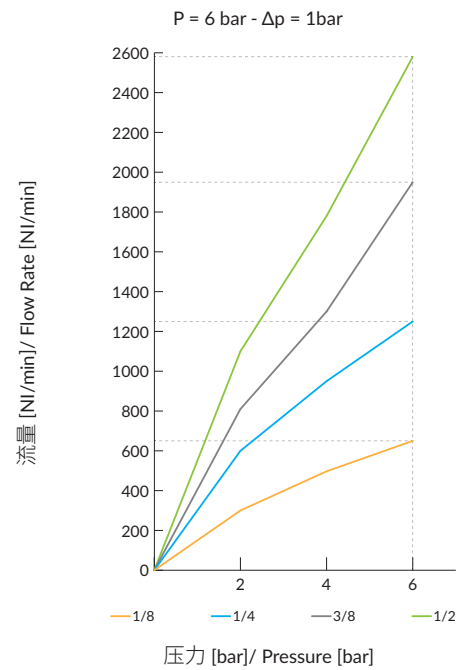
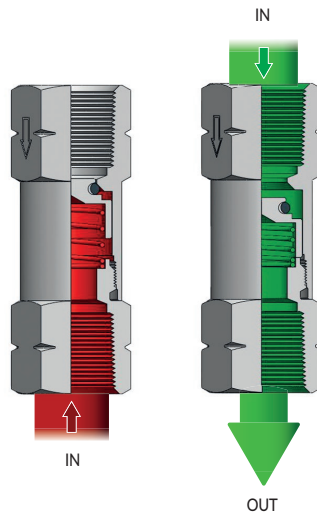
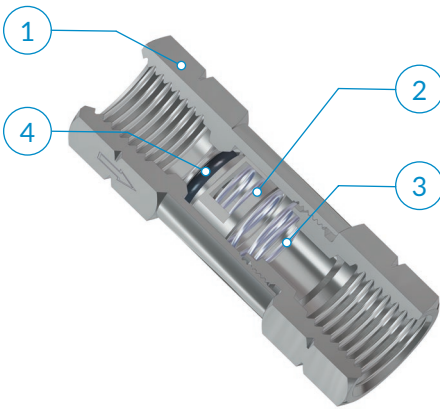
-20° ÷ 80°C



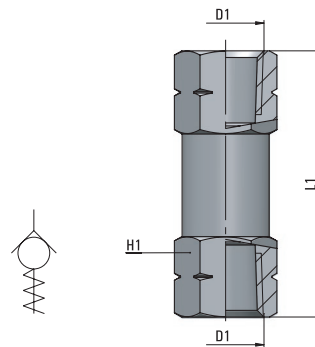
2 ÷ 10 bar



0,2 bar



类型	D1	L1	H1	g Δ
23 00 1/8	1/8 NPTF	39,5	13	27,1
23 00 1/4	1/4 NPTF	48	16	42,9
23 00 3/8	3/8 NPTF	52	20	74,4
23 00 1/2	1/2 NPTF	62	24	121,6



i 流体仅允许单向通过(沿着阀体上箭头方向), 反向截止。

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

建议的连接管路:
取决于与阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

- AP 55
- AR 63
- AV 221
- CO 157
- CX 255
- EV 217
- GU 119
- GU Safety 135
- GX 281
- GX Safety 291
- HP 317
- MA 27
- MB 41
- MC 83
- MF 235
- MM 333
- MO 93
- MP 323
- MT 339
- MV 171
- MX 241
- MY 229
- OX 261
- PA 113
- PE 79
- PM 329
- PN 67
- PT 347
- PU 131
- PU Safety 149
- PUX 287
- PV 203
- PVX 311
- PX 249
- QO 363
- RA 101
- RF 269
- RT 355
- RX 275
- Tools 369
- Tubings 375
- VF 295
- VT 359
- VX 299

PV 26

滑阀

Slide valve

1 本体
Body

黄铜UNI EN 12164 CW614N镀铬
Brass UNI EN 12164 CW614N, chrome plated

2 滑套
Sleeve

阳极氧化铝Al6060
Anodized aluminium Al6060

3 密封圈
Seals

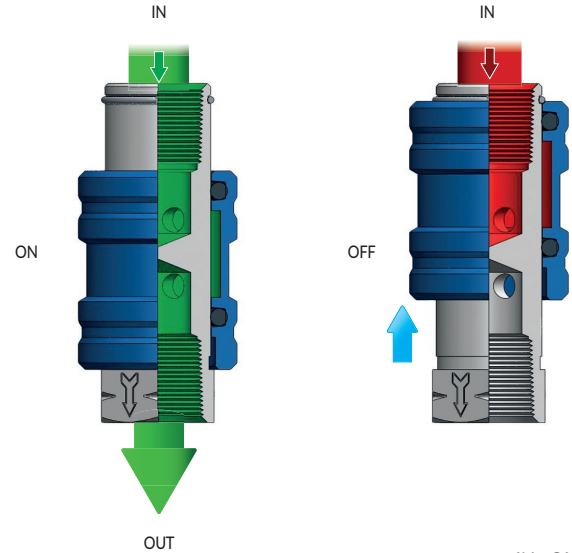
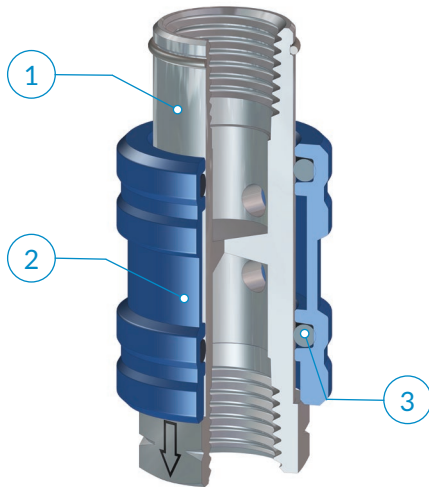
NBR
NBR



-20° ÷ 80°C



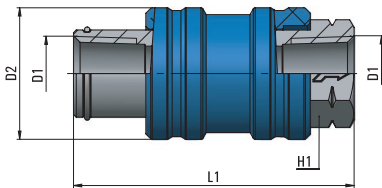
10 bar



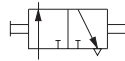
流量
Flow rate

(6 bar - Δp = 1bar)

PV 26 00 18	620 NI/min
PV 26 00 14	920 NI/min
PV 26 00 38	1520 NI/min
PV 26 00 12	2720 NI/min



类型	D1	D2	L1	H1	g
26 1/8 1/8	1/8 NPTF	21	46	14	50,0
26 1/4 1/4	1/4 NPTF	24	51,2	17	61,4
26 3/8 3/8	3/8 NPTF	31	58,9	22	116,5
26 1/2 1/2	1/2 NPTF	34,7	72,5	26	-



i 可用于气动系统的阻隔。滑套有开和关两个位置，当滑套背离六角方向滑动，阀门处于开的位置，气流按箭头方向流动；反之则阀门关闭，气源切断，并释放背压。

建议的连接管路：
取决于与阀相连的接头类型。

应用领域：
空气经过过滤和润滑处理的气动系统。

i 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.

快插式单向阀

Straight connection with check valve

- 1** 本体
Body

黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated
- 2** 阀芯
Valve
- 3** 密封圈
Seals

NBR
NBR
- 4** 弹簧
Spring

AISI 302 不锈钢
Stainless steel AISI 302
- 5** PN快插接头
PN line push-in fittings



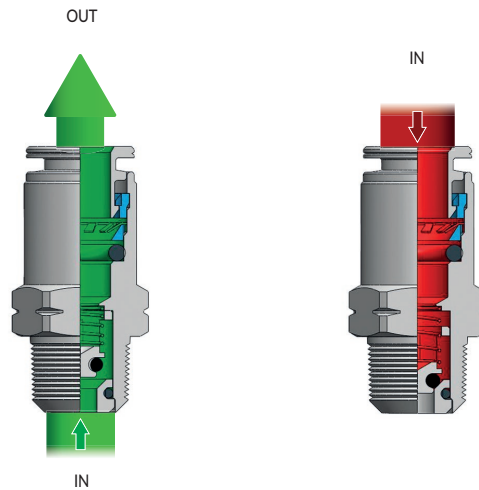
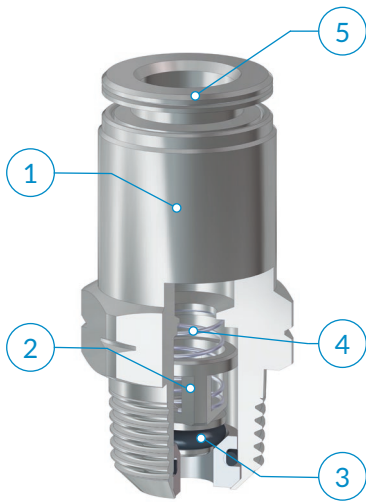
-20° ÷ 80°C



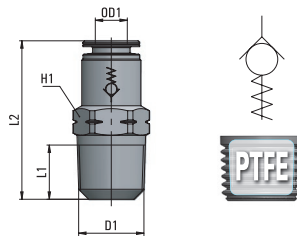
2 ÷ 10 bar



0,2 bar



Meter Out Version



Meter Out Version

类型	OD1	D1	L1	L2	H1	g
33 1/4 1/8	1/4	1/8 NPTF	8,2	28,2	13	14,7
33 1/4 1/4	1/4	1/4 NPTF	13	32	14	20,8

i 流体仅允许单向通过 (沿着阀体上箭头方向), 反向截止。

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

建议的连接管路:
取决于与阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

- AP 55
- AR 63
- AV 221
- CO 157
- CX 255
- EV 217
- GU 119
- GU Safety 135
- GX 281
- GX Safety 291
- HP 317
- MA 27
- MB 41
- MC 83
- MF 235
- MM 333
- MO 93
- MP 323
- MT 339
- MV 171
- MX 241
- MY 229
- OX 261
- PA 113
- PE 79
- PM 329
- PN 67
- PT 347
- PU 131
- PU Safety 149
- PUX 287
- PV 203
- PVX 311
- PX 249
- QO 363
- RA 101
- RF 269
- RT 355
- RX 275
- Tools 369
- Tubings 375
- VF 295
- VT 359
- VX 299

PV 22

线型快排阀

In line quick exhaust valve

- 1** 本体
Body

阳极氧化铝 Al2011
Anodized aluminium Al2011
- 2** 唇式密封圈
Lip ring

PU - NBR, 仅用于 1/4
PU - NBR only for 1/4
- 3** 密封圈
Seals

NBR
NBR
- 4** 消声器
Muffler

AISI 316 不锈钢
Stainless steel AISI 316
- 5** 挡圈
Seeger

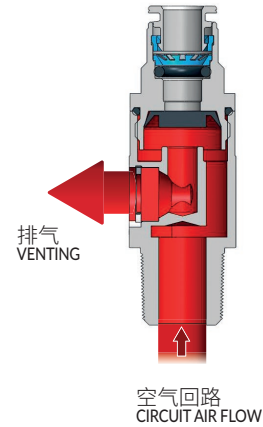
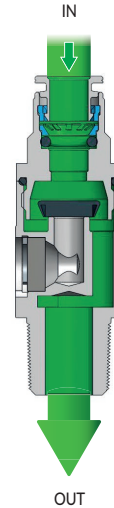
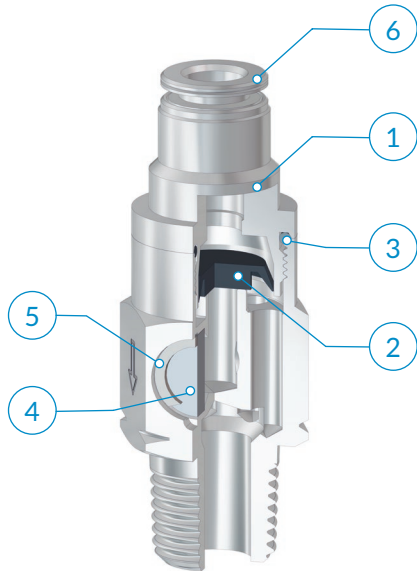
AISI 302 不锈钢
Stainless steel AISI 302
- 6** PN快插接头
PN line push-in fittings



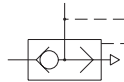
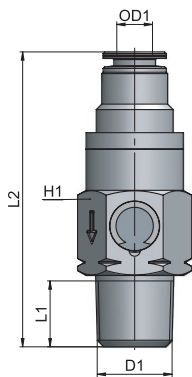
-20 ° ÷ 80°C



2 ÷ 10 bar



流量 Flow rate	IN OUT		OUT VENT	
	1→2		2→3	
	(6 bar - Δp = 1bar)			
1/4	1050 NI/min		660 NI/min	
3/8	3000 NI/min		1900 NI/min	
1/2	3420 NI/min		2280 NI/min	



类型	OD1	D1	L1	L2	H1	g ΔΔ
22 1/4 1/4	1/4	1/4 NPTF	13	53,5	18	19,7
22 3/8 3/8	3/8	3/8 NPTF	13	66	27	-
22 1/2 1/2	1/2	1/2 NPTF	17	79	34	-

i 断开供气时阀门能够迅速排出回路中空气;如果用于气缸,则可提高速度。

建议的连接管路:
取决于与阀相连的接头类型。

应用领域:
空气经过过滤和润滑处理的气动系统。

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.

PV 27

PV
LINE

快排阀

Quick exhaust valve

1 本体
Body

黄铜镀镍 UNI EN 12165 CW617N
Brass UNI EN 12165 CW617N, nickel plated

2 唇式密封圈
Lip ring

PU - NBR, 仅用于 M5
PU - NBR only for M5

3 垫圈
Gasket

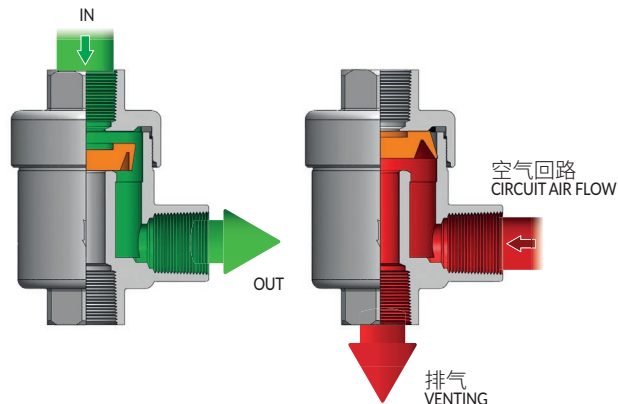
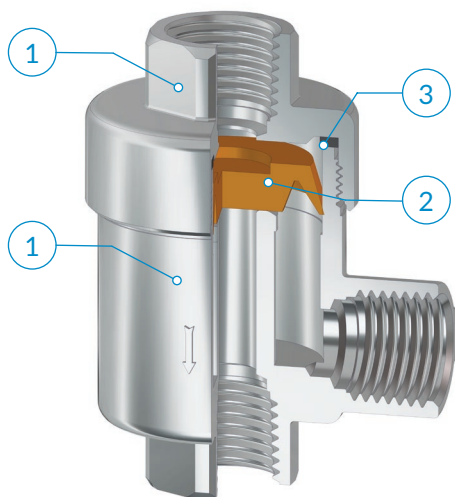
PA6
PA6



-20° + 80°C



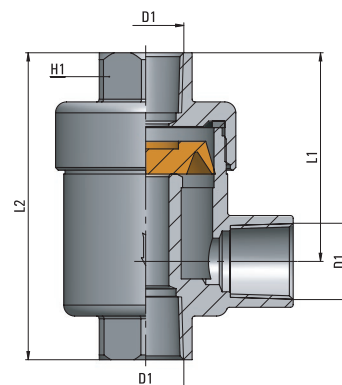
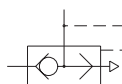
2 ÷ 10 bar



流量 Flow rate	IN OUT	OUT VENT
	1→2	2→3
	(6 bar - Δp = 1bar)	
1/8	450 NI/min	760 NI/min
1/4	780 NI/min	1840 NI/min
3/8	1160 NI/min	2600 NI/min
1/2	1260 NI/min	5300 NI/min
3/4*	1530 NI/min	3300 NI/min

*3 bar 压力下的流量特性 - Flow rate at 3 bar

类型	D1	L1	L2	H1	g ΔΔ
27 00 1/8	1/8 NPTF	28	42	14	84,2
27 00 1/4	1/4 NPTF	34,5	53	19	147,7
27 00 3/8	3/8 NPTF	36	55	21	163,7
27 00 1/2	1/2 NPTF	44	71	26	314,9
27 00 3/4	3/4 NPTF	55	90	32	511,0



i 断开供气时阀门能够迅速排出回路中空气;如果用于气缸,则可提高速度。

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.

建议的连接管路:
取决于与阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

AP	55
AR	63
AV	221
CO	157
CX	255
EV	217
GU	119
GU Safety	135
GX	281
GX Safety	291
HP	317
MA	27
MB	41
MC	83
MF	235
MM	333
MO	93
MP	323
MT	339
MV	171
MX	241
MY	229
OX	261
PA	113
PE	79
PM	329
PN	67
PT	347
PU	131
PU Safety	149
PUX	287
PV	203
PVX	311
PX	249
QO	363
RA	101
RF	269
RT	355
RX	275
Tools	369
Tubings	375
VF	295
VT	359
VX	299

PV 45

先导式单向阀

Pilot operated check valve

1 本体
Body

黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated

2 活塞
Piston

AISI 304 不锈钢
Stainless steel AISI 304

3 弹簧
Spring

AISI 302 不锈钢
Stainless steel AISI 302

4 密封圈
Seals

NBR-PU
NBR-PU

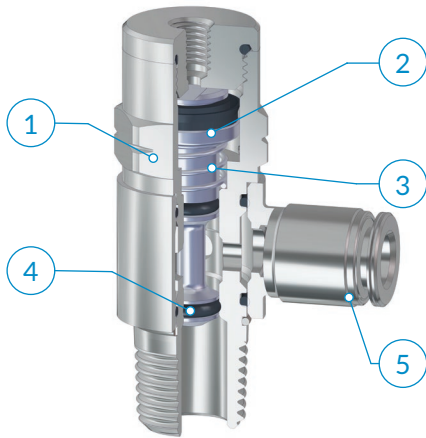
5 PN快插接头
PN line push-in fittings



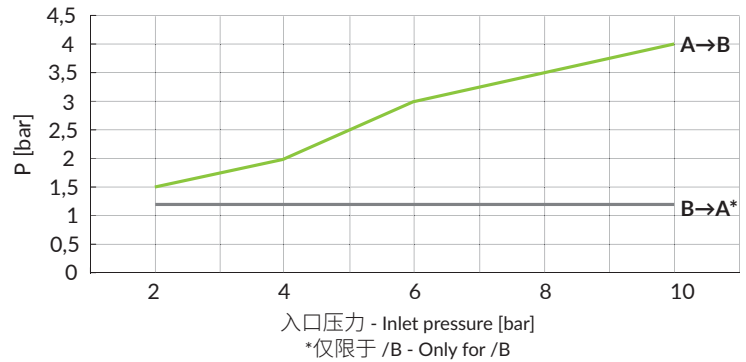
-20° ÷ 80°C



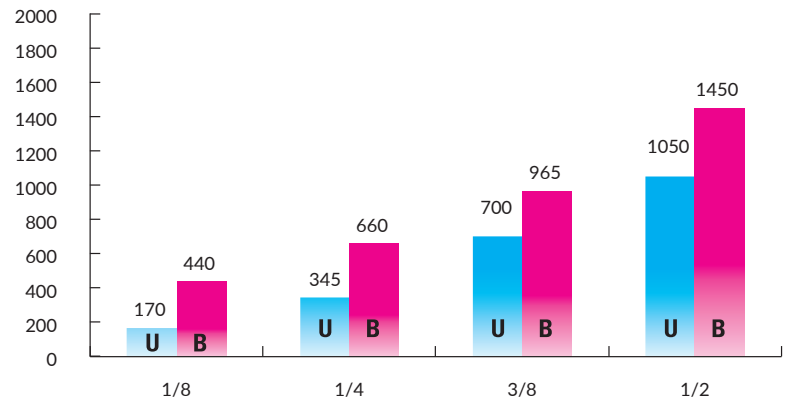
10 bar



先导压力 - Pilot pressure P [bar]



流量 - Flow capacity [NI/min] 6 bar - Δp1



i 先导式单向阀 如果成对安装在缸上,当控制压力突然下降时,则能确保防止气缸运动。通过解锁装置,可以手动重置活塞行程,这在调整阶段或缺少空气时特别有用。

建议的连接管路:
取决于与阀相连的接头类型。

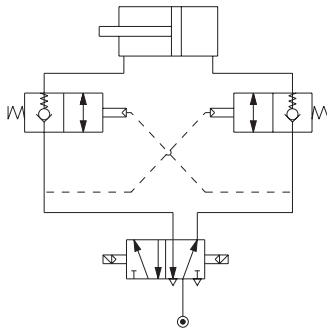
应用领域:
空气经过过滤和润滑处理的气动系统。

i 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.

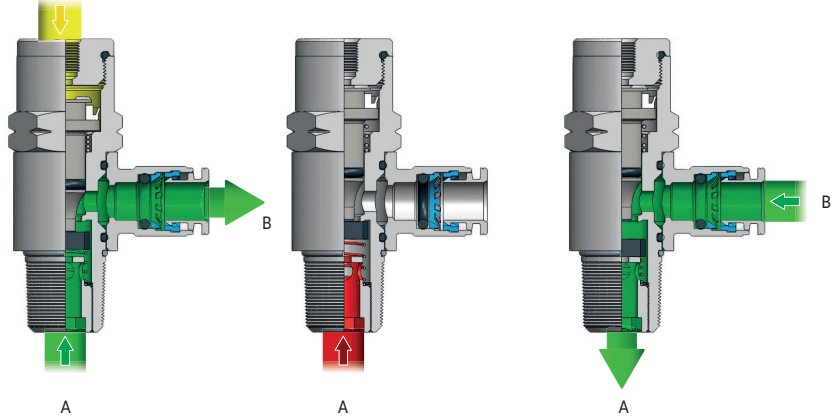
Recommended tubings:
According to the fitting connected to the valve.

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

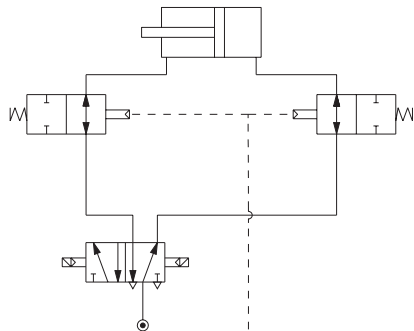
/U = 单向阀 One Way



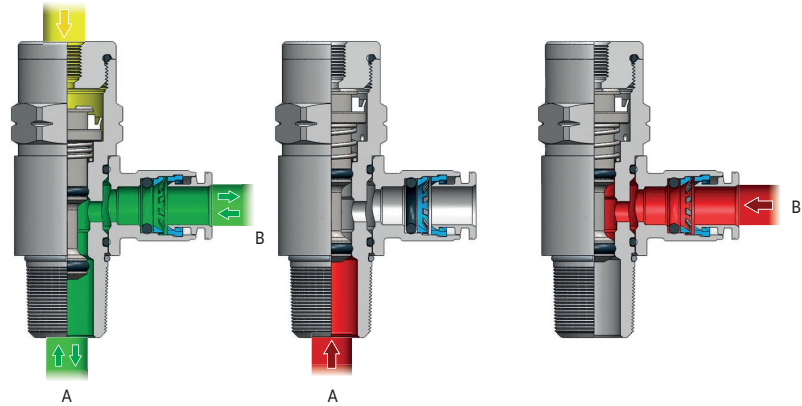
先导压力 (P)
PILOT PRESSURE (P)



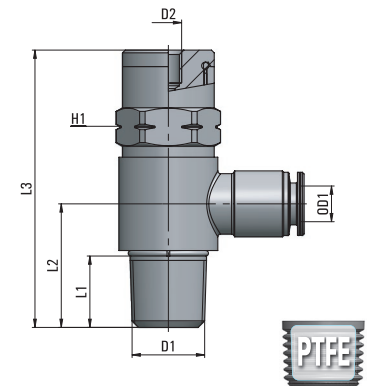
/B = 双向阀 Bidirectional



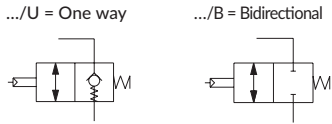
先导压力 (P)
PILOT PRESSURE (P)



类型	OD1	D1	D2	L1	L2	L3	H1	g Δ
PV45 1/4 1/8 /B	1/4	1/8NPTF	10-32UNF	9,5	17	44,3	13	40,1
PV45 1/4 1/4 /B	1/4	1/4NPTF	10-32UNF	14	22,5	50,5	17	69,8
PV45 3/8 3/8 /B	3/8	3/8NPTF	1/8NPTF	14	24	58,5	20	117,6
PV45 1/2 1/2 /B	1/2	1/2NPTF	1/8NPTF	18,2	30,2	67,7	25	193,8
PV45 1/4 1/8 /U	1/4	1/8NPTF	10-32UNF	8,4	17	42,8	13	40,7
PV45 1/4 1/4 /U	1/4	1/4NPTF	10-32UNF	13	21,5	50,5	17	71,7
PV45 3/8 3/8 /U	3/8	3/8NPTF	1/8NPTF	13	25	57	20	118,6
PV45 1/2 1/2 /U	1/2	1/2NPTF	1/8NPTF	17	30,7	67,7	25	198,4



可用版本:
Available as:



AP 55
AR 63
AV 221
CO 157
CX 255
EV 217
GU 119
GU Safety 135
GX 281
GX Safety 291
HP 317
MA 27
MB 41
MC 83
MF 235
MM 333
MO 93
MP 323
MT 339
MV 171
MX 241
MY 229
OX 261
PA 113
PE 79
PM 329
PN 67
PT 347
PU 131
PU Safety 149
PUX 287
PV 203
PVX 311
PX 249
QO 363
RA 101
RF 269
RT 355
RX 275
Tools 369
Tubings 375
VF 295
VT 359
VX 299

PV 46

气动开关

Pneumatic switch

1 本体
Body
黄铜镀镍 UNI EN 12164 CW614N
Brass UNI EN 12164 CW614N, nickel plated

2 手柄
Handle

3 密封圈
Seals
NBR
NBR

4 弹簧
Spring
AISI 302 不锈钢
Stainless steel AISI 302

5 PN快插接头
PN line push-in fittings



-20° ÷ 80°C



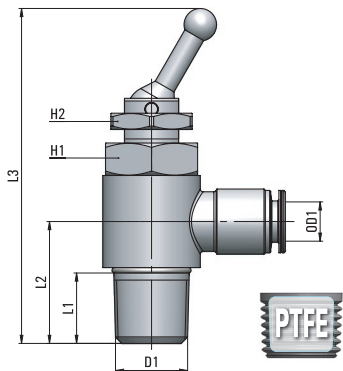
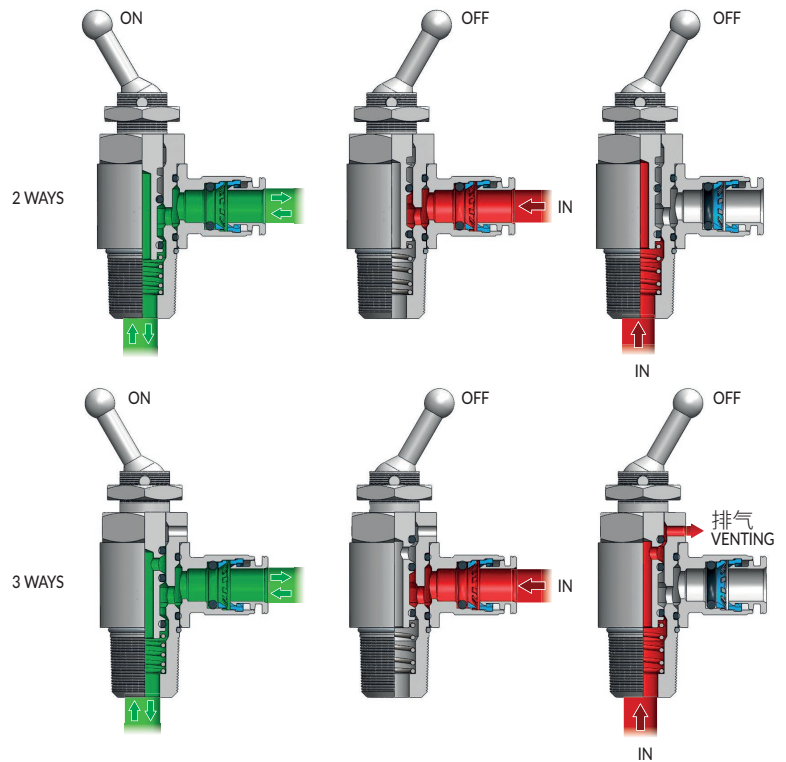
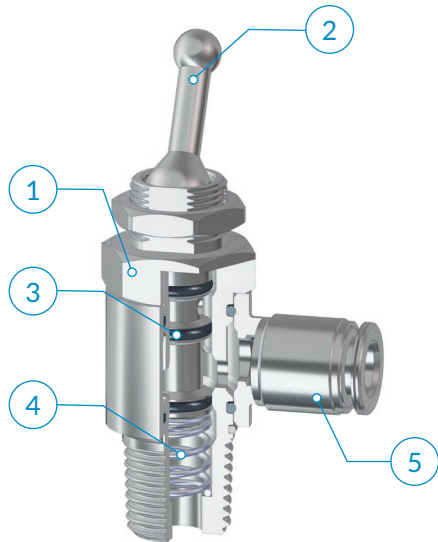
15 bar



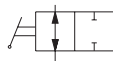
流量
Flow rate

(6 bar - Δp = 1bar)

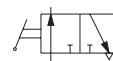
1/8	235 NI/min
1/4	265 NI/min



类型	OD1	D1	L1	L2	L3	H1	H2	g Δ
46 1/4 1/8	1/4	1/8 NPTF	9,5	17	54,3	14	15	39,8
46 1/4 1/4	1/4	1/4 NPTF	14	22,5	61,8	17	15	63,3



二通阀



三通阀

i 这些阀能够通过简单操作控制杆的方式截断回路(开/关);有二通阀和三通阀两种,通过使用三通阀,除了可以断开回路外,还可以进行排气。

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.

建议的连接管路:
取决于与阀相连的接头类型。

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

应用领域:
空气经过过滤和润滑处理的气动系统。

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

PV 11

PV
LINE

消声器

Air mufflers


	本体 Body	消声器 Muffler		
PV11-FE	黄铜镀镍UNIEN 12164 CW614N Brass UNI EN 12164 CW614N nickel plated	AISI 304不锈钢 Stainless steel AISI 304	0 ÷ 12 bar	-10 ÷ 70 °C
PV11-BE	黄铜镀镍UNIEN 12164 CW614N Brass UNI EN 12164 CW614N	烧结青铜 Sintered bronze 89/11	0 ÷ 12 bar	-10 ÷ 70 °C

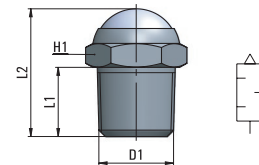
AP 55
AR 63
AV 221
CO 157
CX 255
EV 217
GU 119
GU 135
Safety
GX 281
GX 291
Safety
HP 317
MA 27
MB 41
MC 83
MF 235
MM 333
MO 93
MP 323
MT 339
MV 171
MX 241
MY 229
OX 261
PA 113
PE 79
PM 329
PN 67
PT 347
PU 131
PU 149
Safety
PUX 287
PV 203
PVX 311
PX 249
QO 363
RA 101
RF 269
RT 355
RX 275
Tools 369
Tubings 375
VF 295
VT 359
VX 299

PV 11-FE

黄铜-不锈钢消音器

Air muffler with stainless steel wire


类型	D1	L1	L2	H1	g 
11 00 1/8-FE	1/8 NPTF	6	15	13	6,2
11 00 1/4-FE	1/4 NPTF	11	22	16	12,4
11 00 3/8-FE	3/8 NPTF	11	23	19	19,0
11 00 1/2-FE	1/2 NPTF	13	25	24	27,7

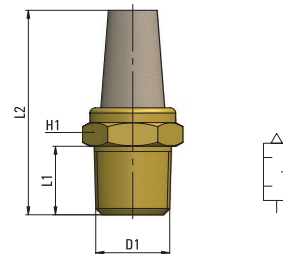


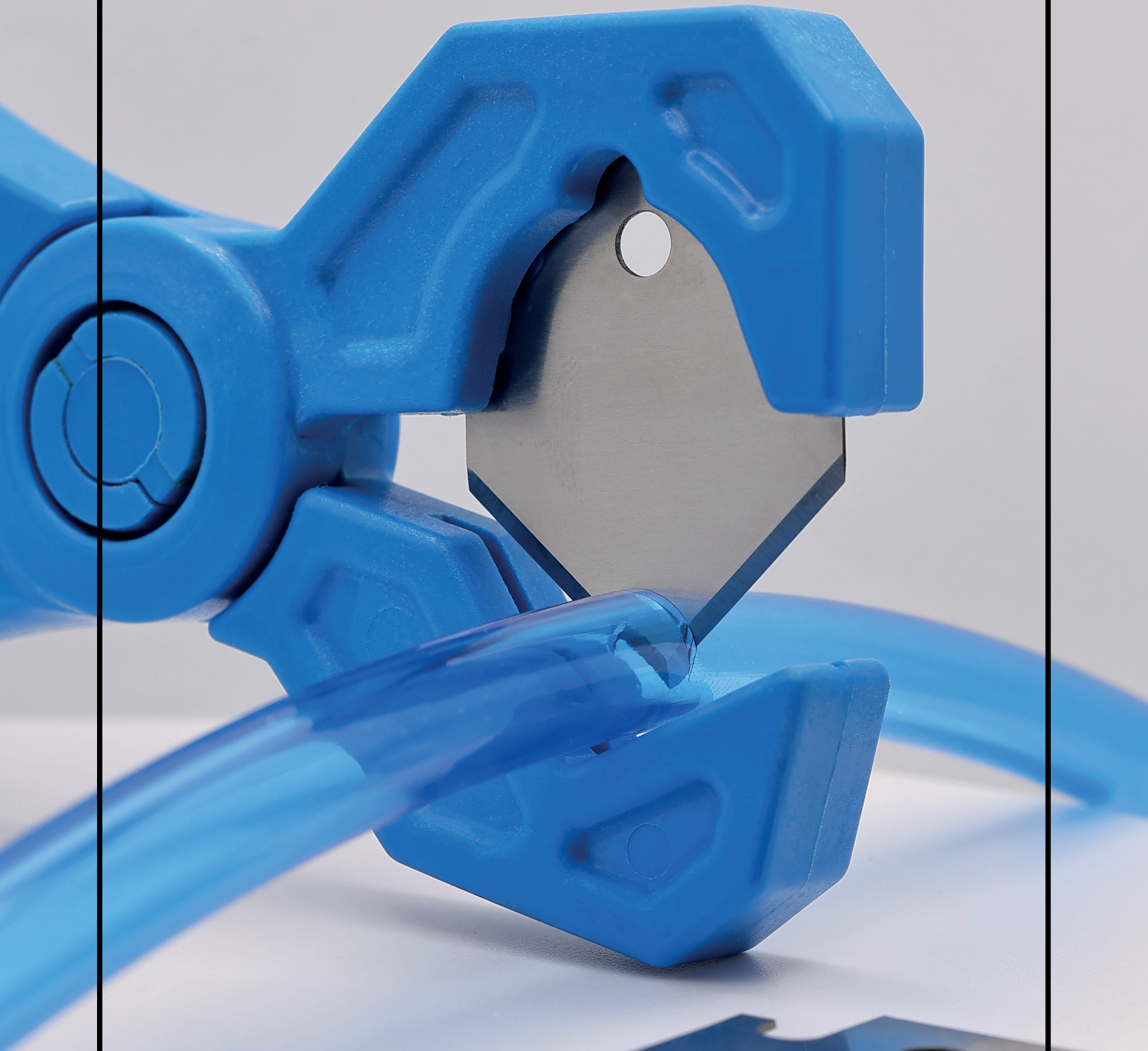
PV 11-BE

烧结青铜消音器

Sintered bronze air muffler

类型	D1	L1	L2	H1	g 
11 00 1/8-BE	1/8 NPTF	6	29	13	9,0
11 00 1/4-BE	1/4 NPTF	11	36	16	17,0
11 00 3/8-BE	3/8 NPTF	11	43	19	29,0
11 00 1/2-BE	1/2 NPTF	13	49	24	46,0





cmatic