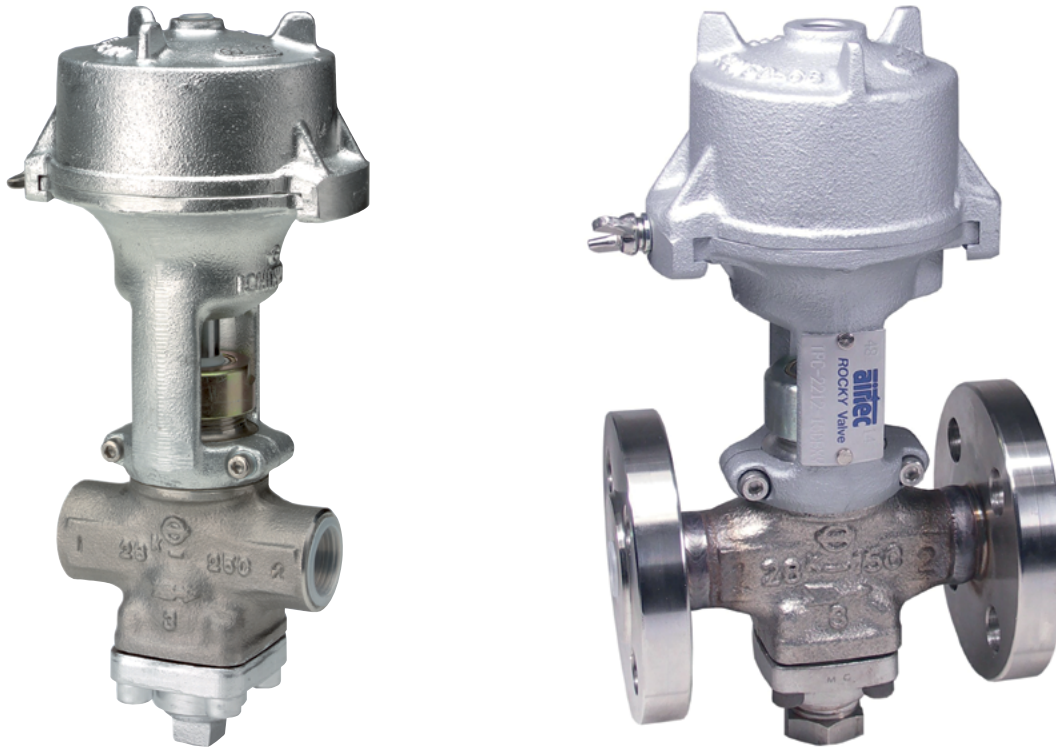


For over 30 years, AIRTEC has been the trusted supplier and service company for ROCKY™ valves. Over this time the brand has become the preferred choice in Tire manufacturing facilities worldwide for controlling Steam, Nitrogen and hot and cold water. Modern precision manufacturing methods and tight quality control along with selection of only the very best materials guarantee ROCKY™ valves to perform in the harshest conditions. The combination of sealing materials provides a bubble tight seal which is critical to the overall performance and reliability. TPC valves and accessories were primarily developed for the rationalization and automation of processes used in the tire, plastic and rubber manufacturing industries but are suitable for most applications requiring reliable on/off control of Steam, Nitrogen and Hot or Cold water. Put us to the test!



**Key features**

- Stainless steel body, seats, stem and flanges
- Teflon® piston ring
- Carbon Teflon® disc rings
- Teflon® and Carbon Teflon® gland packings
- 2 or 3 way function by adding or removing a plug in port 3
- Normally open or normally closed function

**Technical data**

Operating pressure	max. 580 psi
Back pressure	max. 362 psi
Pilot pressure	36 - 51 psi
Pressure class	300
Temperature range	- 22°F to + 446°F
Connections	Thread <b>NPT, BSPT, PT</b> Flange <b>ANSI, DIN, JIS</b>
Media	Steam, nitrogen and other inert gases, hot or cold water, air

Order Code

TPC-2\*\*\*-\*\*\*\*

Series

TPC-2 Standard

Version

2 2/2-way  
3 3/2-way

Function

1 Normally closed (NC)  
2 Normally open (NO)

Connection

1 Thread  
2 Flange / thread  
3 Flange

Nominal size / thread

08 8 mm 1/4"  
10 10 mm 3/8"  
15 15 mm 1/2"  
20 20 mm 3/4"  
25 25 mm 1"  
32 32 mm 1 1/4"  
40 40 mm 1 1/2"  
50\* 50 mm -

Material gland packing

Teflon® and Carbon Teflon®  
H Carbon Teflon® (up to + 482°F)

Material

X Lower seat stainless steel  
Y Flange stainless steel

Type of thread lower seat

N NPT thread  
B\* BSPT thread  
P\* PT thread

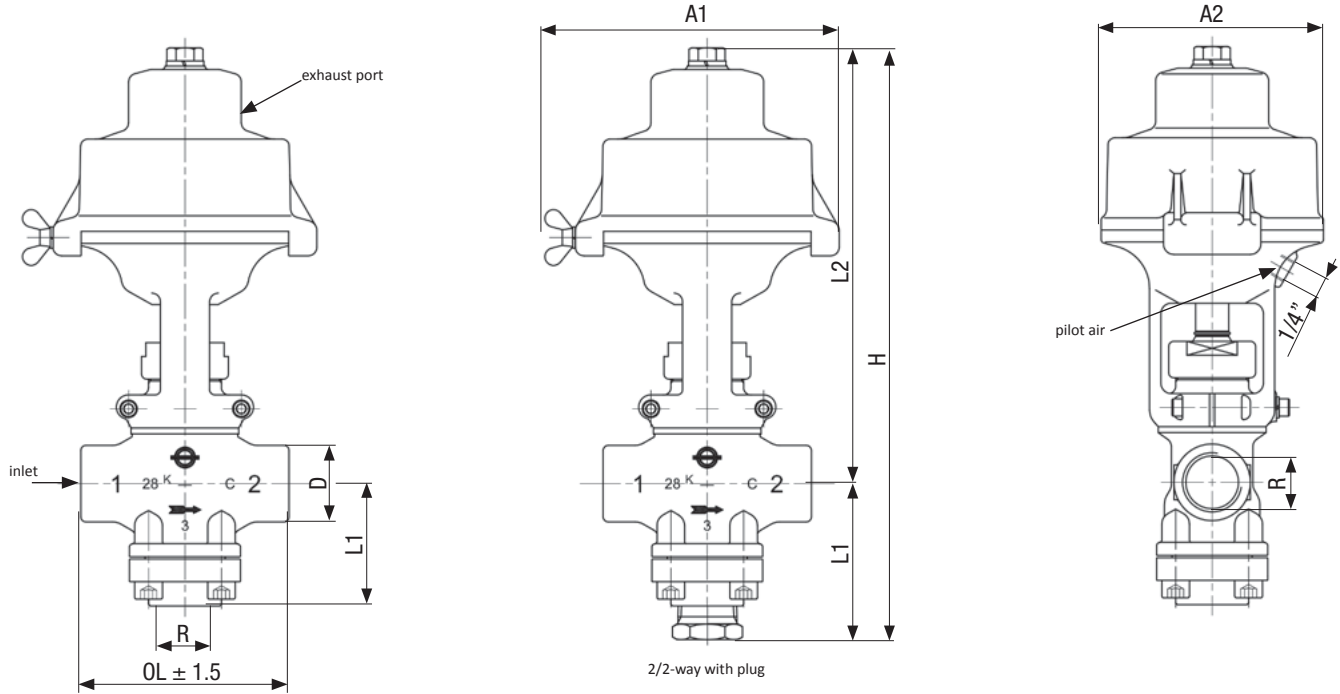
Type of thread / flange

N NPT thread  
B\* BSPT thread  
P\* PT thread  
A ANSI flange  
D\* DIN flange  
J\* JIS flange

\* Available on Request. Not a stock item.

1

**Dimensions (mm)**



**TPC valve, tapped, 2/2-way, NO**

Model No.	DN	Internal thread*	D	OL	L1	L2	H	A1	A2	Stroke	Weight (lbs)
TPC-2221-08NX	8	1/4"	30	85	61.3	163.5	224.8	120	82	9.3	5.9
TPC-2221-10NX	10	3/8"	30	85	64	163.5	227.5	120	82	9.3	5.9
TPC-2221-15NX	15	1/2"	30	85	65.1	163.5	228.6	120	82	9.3	5.9
TPC-2221-20NX	20	3/4"	38	110	84.8	193	277.8	139	100	12	4.3
TPC-2221-25NX	25	1"	44	120	90.9	232	322.9	169	128	18	9.5
TPC-2221-40NX	40	1 1/2"	62	150	115.6	302	417.6	211	170	23	35.3

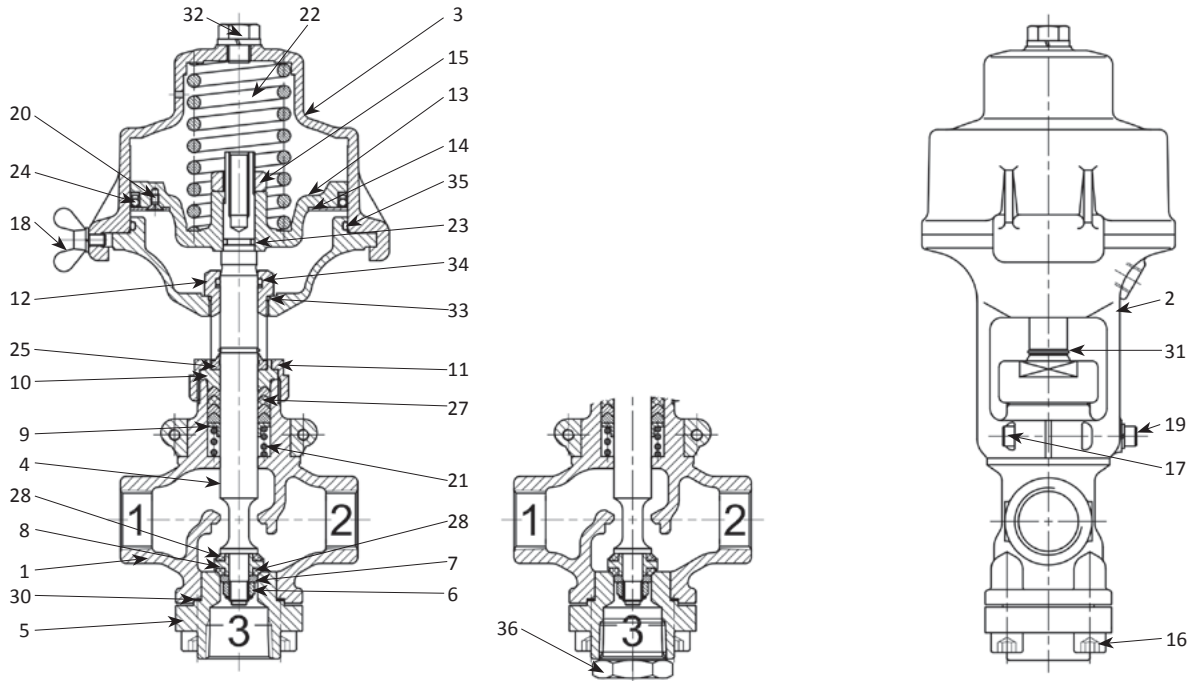
**TPC valve, tapped, 3/2-way, NO**

Model No.	DN	Internal thread*	D	OL	L1	L2	H	A1	A2	Stroke	Weight (lbs)
TPC-2321-08NX	8	1/4"	30	85	48.3	163.5	211.8	120	82	9.3	5.9
TPC-2321-10NX	10	3/8"	30	85	48.3	163.5	211.8	120	82	9.3	5.9
TPC-2321-15NX	15	1/2"	30	85	48.3	163.5	211.8	120	82	9.3	5.9
TPC-2321-20NX	20	3/4"	38	110	66.3	193	259.3	139	100	12	4.3
TPC-2321-25NX	25	1"	44	120	71.3	232	303.3	169	128	18	9.5
TPC-2321-40NX	40	1 1/2"	62	150	91.3	302	393.3	211	170	23	35.3

\*Thread type NPT . Valves with BSPT (Rc) according to ISO 7-1 DIN EN 10226/1 or PT thread are available on request. (The dimensions are identical to the standard NPT version.)

Refer to order code on page 3.

Spare parts



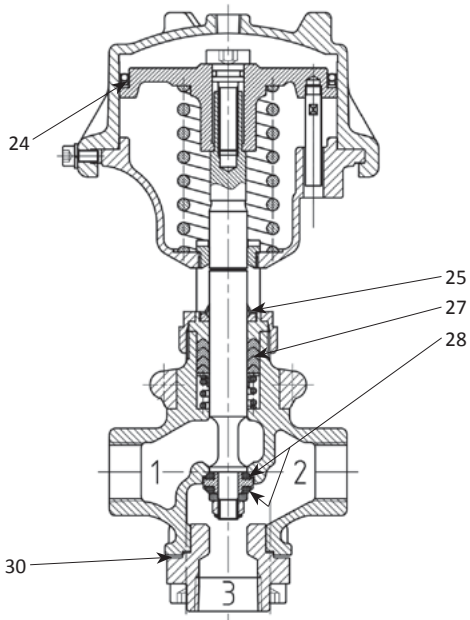
No.	Name	Valve	TPC-2221-08*X TPC-2321-08*X	TPC-2221-10*X TPC-2321-10*X	TPC-2221-15*X TPC-2321-15*X	TPC-2221-20*X TPC-2321-20*X	TPC-2221-25*X TPC-2321-25*X	TPC-2221-40*X TPC-2321-40*X
1	Body		C-21108 - 01 *	C-21110 - 01 *	C-21115 - 01 *	C-21120 - 01 *	C-21125 - 01 *	C-21140 - 01 *
2	Yoke		C-22115 - 02	C-22115 - 02	C-22115 - 02	C-22120 - 02	C-22125 - 02	C-22140 - 02
3	Cylinder		C-22115 - 03 *	C-22115 - 03 *	C-22115 - 03 *	C-22120 - 03 *	C-22125 - 03 *	C-22140 - 03 *
4	Stem		C-22115 - 04	C-22115 - 04	C-22115 - 04	C-22120 - 04	C-22125 - 04	C-22140 - 04
5	Lower seat		C-21108 - 05 *X	C-21110 - 05 *X	C-21115 - 05 *X	C-21120 - 05 *X	C-21125 - 05 *X	C-21140 - 05 *X
6	U-nut		C-21115 - 06	C-21115 - 06	C-21115 - 06	C-21120 - 06	C-21125 - 06	C-21140 - 06
7	Guide washer		C-21115 - 07	C-21115 - 07	C-21115 - 07	C-21120 - 07	C-21125 - 07	C-21140 - 07
8	Disc adapter		C-21115 - 08	C-21115 - 08	C-21115 - 08	C-21120 - 08	C-21125 - 08	C-21140 - 08
9	Ring washer		C-21115 - 09	C-21115 - 09	C-21115 - 09	C-21120 - 09	C-21125 - 09	C-21140 - 09
10	Gland		C-21115 - 10	C-21115 - 10	C-21115 - 10	C-21120 - 10	C-21125 - 10	C-21140 - 10
11	Gland nut		C-21115 - 11	C-21115 - 11	C-21115 - 11	C-21120 - 11	C-21125 - 11	C-21140 - 11
12	Guide bushing		C-22115 - 12	C-22115 - 12	C-22115 - 12	C-22120 - 12	C-22125 - 12	C-22140 - 12
13	Piston		C-22115 - 13	C-22115 - 13	C-22115 - 13	C-22120 - 13	C-22125 - 13	C-22140 - 13
14	Ring plate		C-21115 - 14	C-21115 - 14	C-21115 - 14	C-21120 - 14	C-21125 - 14	C-21140 - 14
15	Tension bolt		C-22115 - 15	C-22115 - 15	C-22115 - 15	C-22120 - 15	C-22125 - 15	C-22140 - 15
16	Socket cap screw		C-21115 - 16	C-21115 - 16	C-21115 - 16	C-21120 - 16	C-21125 - 16	C-21140 - 16
17	Socket cap screw		C-21115 - 17	C-21115 - 17	C-21115 - 17	C-21120 - 17	C-21125 - 17	C-21140 - 17
18	Wing bolt		C-21115 - 18	C-21115 - 18	C-21115 - 18	C-21120 - 18	C-21125 - 18	C-21140 - 18
19	Socket cap screw		C-21115 - 19	C-21115 - 19	C-21115 - 19	C-21120 - 19	C-21125 - 19	C-21140 - 19
20	Flat head screw		C-21115 - 20	C-21115 - 20	C-21115 - 20	C-21120 - 20	C-21125 - 20	C-21140 - 20
21	Packing spring		C-21115 - 21	C-21115 - 21	C-21115 - 21	C-21120 - 21	C-21125 - 21	C-21140 - 21
22	Piston Spring		C-21115 - 22	C-21115 - 22	C-21115 - 22	C-21120 - 22	C-21125 - 22	C-21140 - 22
23	O-ring		C-21115 - 23	C-21115 - 23	C-21115 - 23	C-21120 - 23	C-21125 - 23	C-21140 - 23
24	Piston ring		C-21115 - 24	C-21115 - 24	C-21115 - 24	C-21120 - 24	C-21125 - 24	C-21140 - 24
25	Dust seal		C-21115 - 25	C-21115 - 25	C-21115 - 25	C-21120 - 25	C-21125 - 25	C-21140 - 25
27	Gland packing		C-21115 - 27	C-21115 - 27	C-21115 - 27	C-21120 - 27	C-21125 - 27	C-21140 - 27
28	Disc ring (2x)		C-21115 - 28	C-21115 - 28	C-21115 - 28	C-21120 - 28	C-21125 - 28	C-21140 - 28
30	Lower seat gasket		C-21115 - 30	C-21115 - 30	C-21115 - 30	C-21120 - 30	C-21125 - 30	C-21140 - 30
31	Lift pin gauge		C-21115 - 31	C-21115 - 31	C-21115 - 31	C-21120 - 31	C-21125 - 31	C-21140 - 31
32	Plug		C-22115 - 32	C-22115 - 32	C-22115 - 32	C-22120 - 32	C-22125 - 32	C-22140 - 32
33	O-ring		C-22115 - 33	C-22115 - 33	C-22115 - 33	C-22120 - 33	C-22125 - 33	C-22140 - 33
34	O-ring with back up ring		C-22115 - 34	C-22115 - 34	C-22115 - 34	C-22120 - 34	C-22125 - 34	C-22140 - 34
35	O-ring		C-22115 - 35	C-22115 - 35	C-22115 - 35	C-22120 - 35	C-22125 - 35	C-22140 - 35
36	Plug		C-21108 - 36 *X	C-21110 - 36 *X	C-21115 - 36 *X	C-21120 - 36 *X	C-21125 - 36 *X	C-21140 - 36 *X

\* please complete: N = NPT thread, B = BSPT thread

**Repair kit**

DN	Model no.:
08, 10, 15	RK-21115
20	RK-21120
25	RK-21125
32	RK-21132
40	RK-21140

**Content**

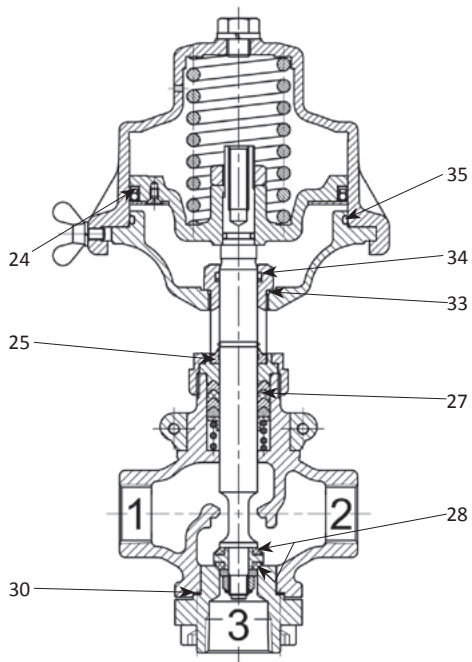



No.	Name	
25	Dust seal	
27	Gland packing	
28	Disc ring (2x)	
30	Lower seat gasket	
<b>Recommended spare part</b>		
24	Piston ring	

## Repair kit

DN	Model no.:
08, 10, 15	RK-22115
20	RK-22120
25	RK-22125
40	RK-22140

## Content



No.	Name	
25	Dust seal	
27	Gland packing	
28	Disc ring (2x)	
30	Lower seat gasket	
33	O-ring	
34	O-ring with back up ring	
35	O-ring	
Recommended spare part		
24	Piston ring	

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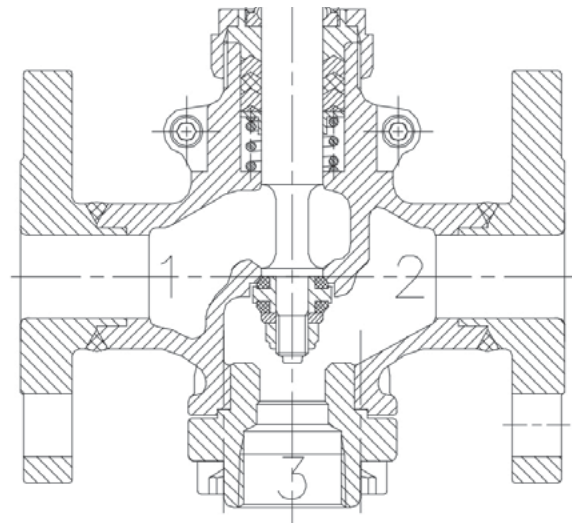
### Electrical valve feedback sensor series PF

Valve position feedback for all types of ROCKY PISTON VALVES.  
Sturdy and robust the cylinder contains contactless magnetic sensors and monitors the valve stem position.  
Top and bottom guided for smooth trouble free operation. Easy to retro fit to existing valves.



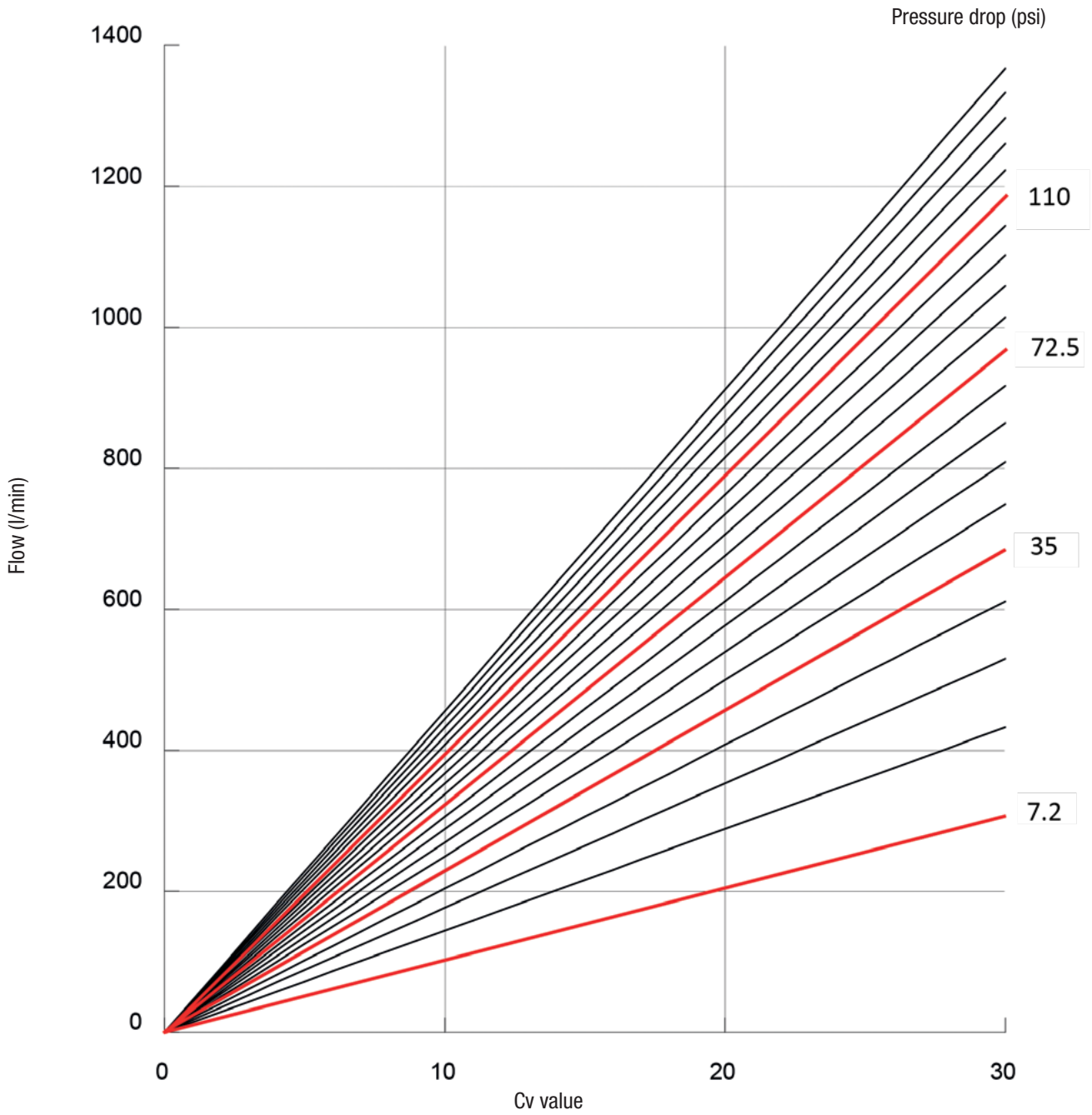
DN	Flow direction	Kv Value	Cv Value	Pressure drop (MPa)	Flow (l/min)
15	1⇒2	2.6	2.9	0.1	42
				0.2	59
				0.3	72
	2⇒1	2.6	2.9	0.1	42
				0.2	59
				0.3	72
	2⇒3	2.5	2.8	0.1	40
				0.2	57
				0.3	70
	3⇒2	2.15	2.4	0.1	35
				0.2	49
				0.3	60
20	1⇒2	4.8	5.4	0.1	78
				0.2	110
				0.3	135
	2⇒1	5.0	5.6	0.1	81
				0.2	114
				0.3	140
	2⇒3	5.4	6	0.1	86
				0.2	122
				0.3	150
	3⇒2	4.5	5	0.1	72
				0.2	102
				0.3	125
25	1⇒2	7.7	8.6	0.1	124
				0.2	175
				0.3	215
	2⇒1	8.0	8.9	0.1	128
				0.2	181
				0.3	222
	2⇒3	10.5	11.7	0.1	169
				0.2	238
				0.3	292
	3⇒2	9.6	10.7	0.1	154
				0.2	218
				0.3	267

DN	Flow direction	Kv Value	Cv Value	Pressure drop (MPa)	Flow (l/min)
32	1⇒2	11.8	13.2	0.1	190
				0.2	269
				0.3	330
	2⇒1	13.1	14.6	0.1	210
				0.2	298
				0.3	364
	2⇒3	14.1	15.8	0.1	228
				0.2	322
				0.3	394
3⇒2	16.4	18.3	0.1	264	
			0.2	373	
			0.3	457	
40	1⇒2	19.8	22.1	0.1	319
				0.2	450
				0.3	552
	2⇒1	19.1	21.4	0.1	308
				0.2	436
				0.3	534
	2⇒3	24.7	27.6	0.1	398
				0.2	563
				0.3	689
3⇒2	25.2	28.2	0.1	406	
			0.2	575	
			0.3	704	



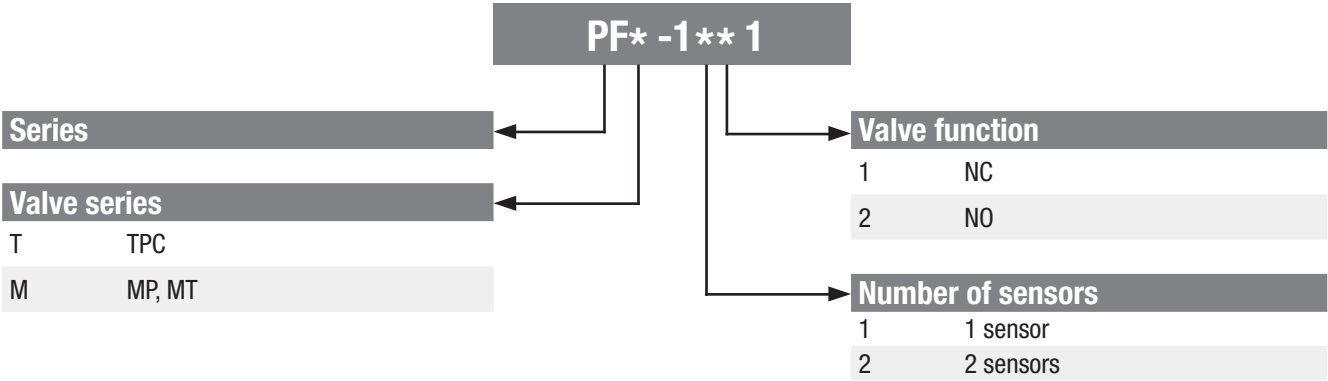


Flow chart of Cv value / pressure drop



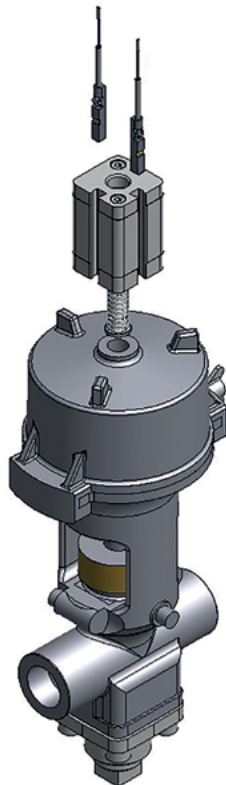
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Order Code

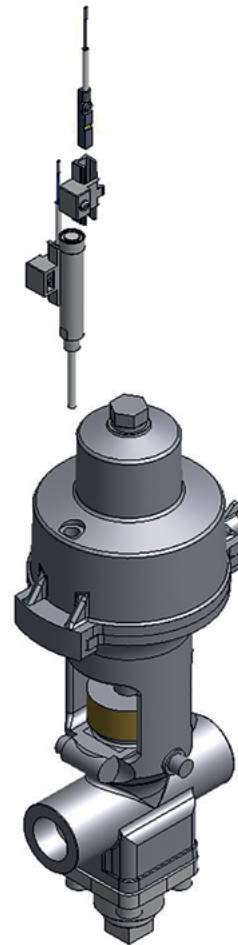


Installation

normally closed



normally open



10