

For over 30 years, the ROCKY products have been marketed by AIRTEC and employed worldwide. Modern precision manufacturing methods and the very best materials guarantee ROCKY valves to be of the highest quality 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.

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

Technische Daten

Technical data

Operating pressure	max. 580 psi
Back pressure	max. 362 psi
Pilot pressure	36 - 51 psi
Nominal pressure	PN 40
Temperature range	- 22°F to + 446°F
Connections	Thread BSPT, NPT, PT Flange DIN, ANSI, JIS
Media	Steam, nitrogen and other inert gases, hot or cold water, air



Order Code

TPC-2***-****

Series

TPC-2	Standard
TPC-4	High frequency valve
TPC-5	2/2-way valve

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

B	BSPT thread
N*	NPT thread
P*	PT thread

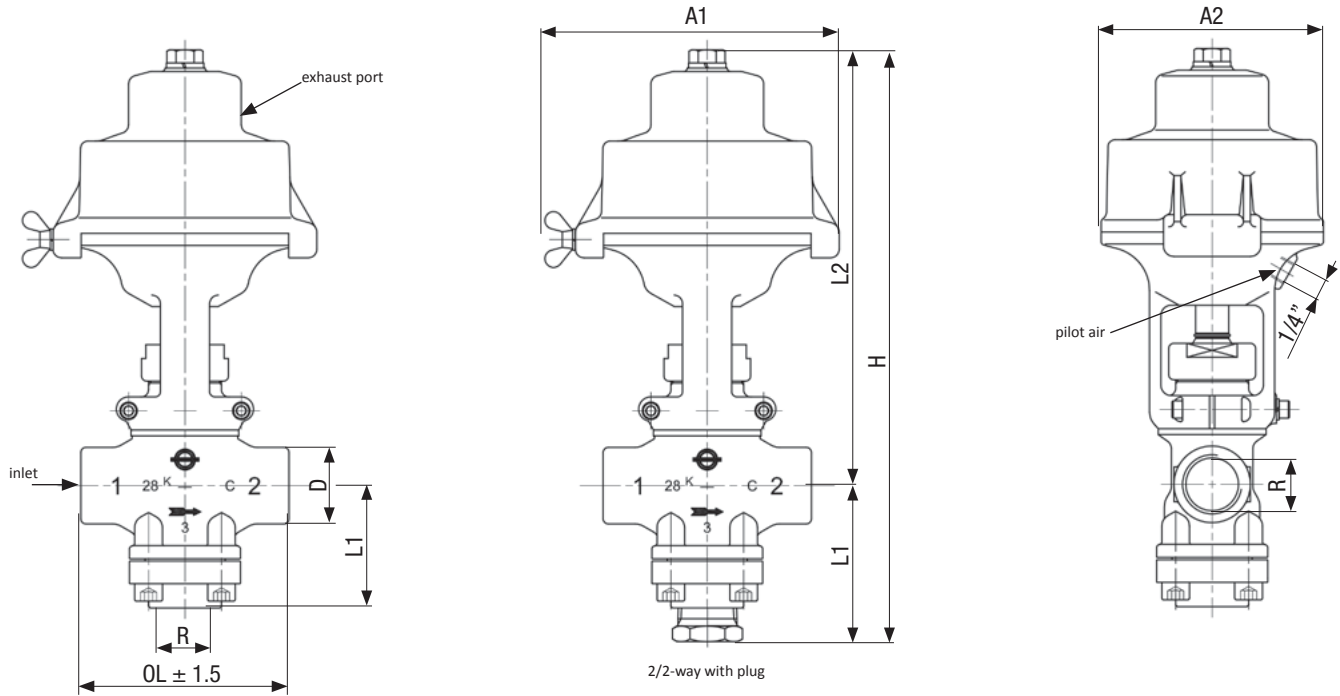
Type of thread / flange

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

* Available on request. No stock item.



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-2221-08BX	8	1/4"	30	85	61.3	163.5	224.8	120	82	9.3	5.9
TPC-2221-10BX	10	3/8"	30	85	64	163.5	227.5	120	82	9.3	5.9
TPC-2221-15BX	15	1/2"	30	85	65.1	163.5	228.6	120	82	9.3	5.9
TPC-2221-20BX	20	3/4"	38	110	84.8	193	277.8	139	100	12	4.3
TPC-2221-25BX	25	1"	44	120	90.9	232	322.9	169	128	18	9.5
TPC-2221-40BX	40	1 1/2"	62	150	115.6	302	417.6	211	170	23	35.3

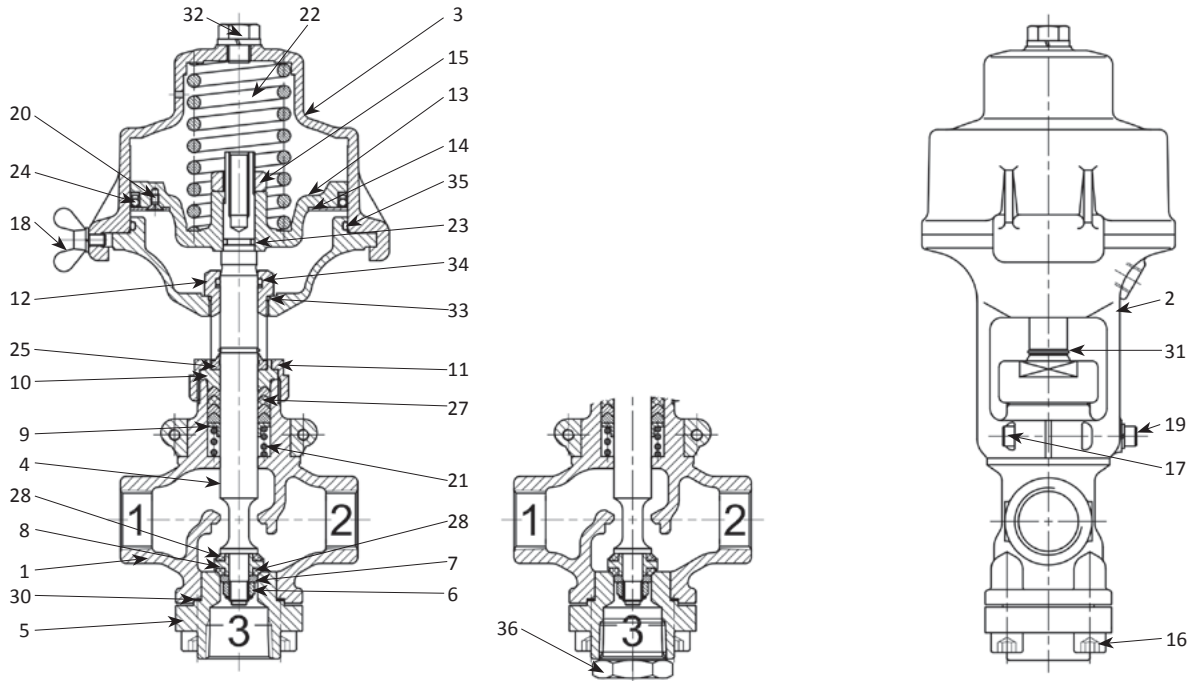
TPC valve, tapped, 3/2-way, NO

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

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

The order number please see the ordering number code on page 3 .

Spare parts



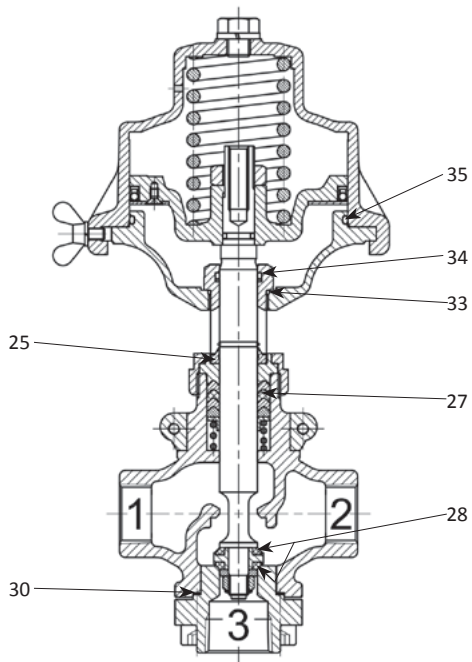
No.	Name	Valve	TPC-2221-08*X TPC-2321-08*X	TPC-2221-10*X TPC-2321-10*X	TPC-2221-15*X TPC-2321-15*X	TPC-2221-20*X TPC-2321-20*X	TPC-2221-25*X TPC-2321-25*X	TPC-2221-40*X TPC-2321-40*X
1	Body		C-21108 - 01 *	C-21110 - 01 *	C-21115 - 01 *	C-21120 - 01 *	C-21125 - 01 *	C-21140 - 01 *
2	Yoke		C-22115 - 02	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: B = BSPT thread, N = NPT thread

Repair kit

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

Content

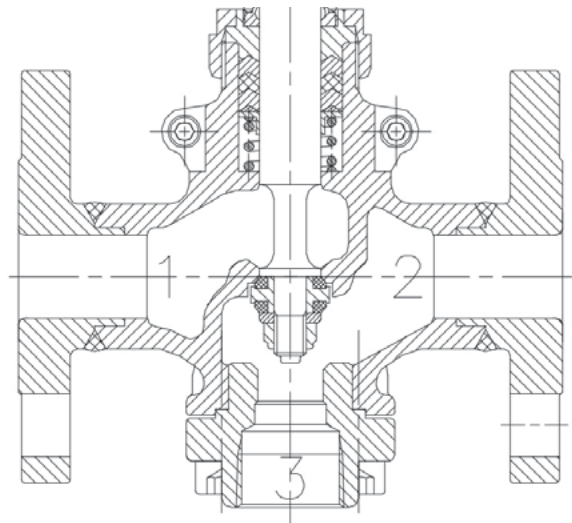


No.	Name	
25	Dust seal	
27	Gland packing	
28	Disc ring (2x)	
30	Lower seat gasket	
33	O-ring	
34	O-ring with back up ring	
35	O-ring	

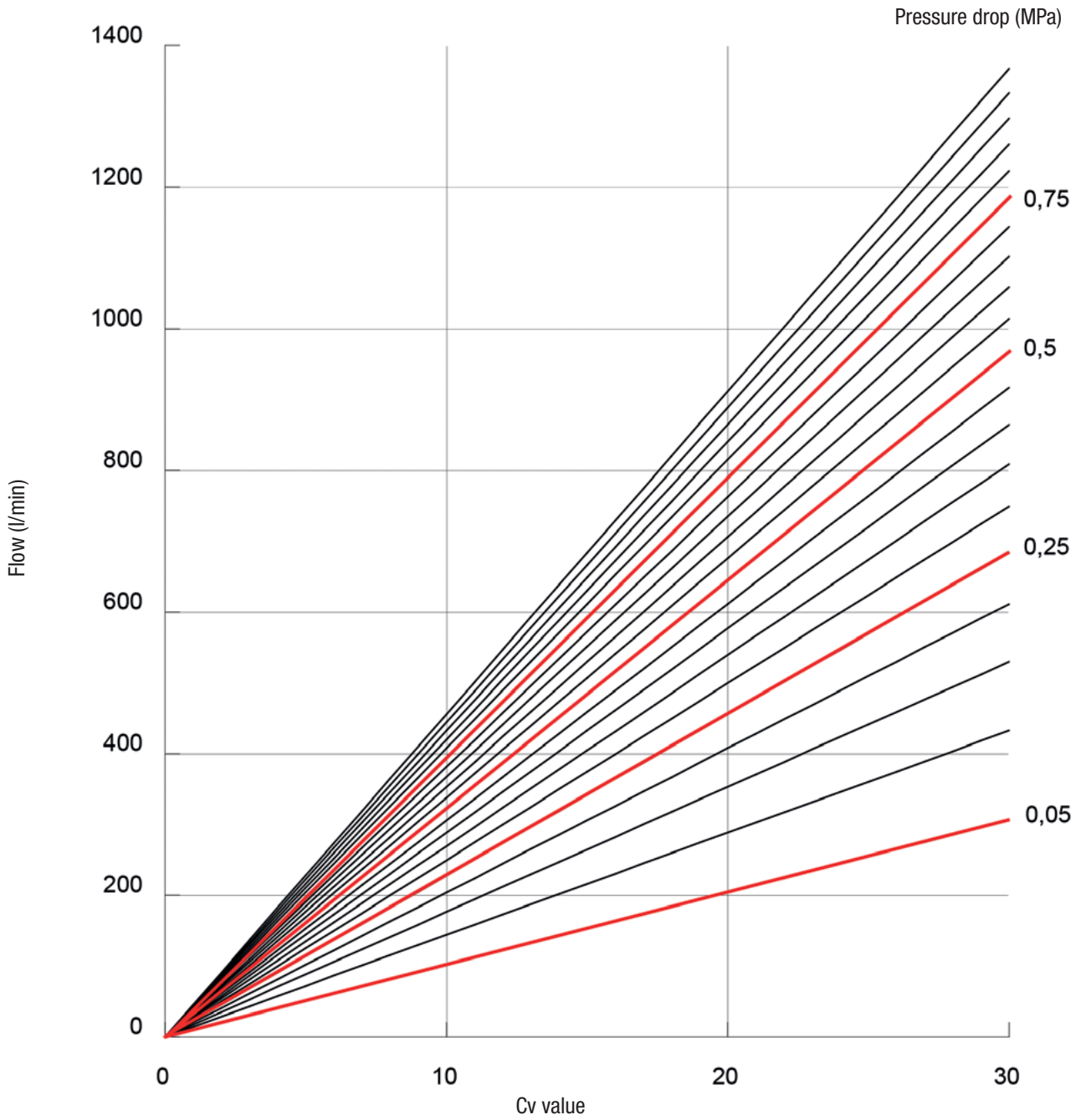
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DN	Flow direction	Kv Value	Cv Value	Pressure drop (MPa)	Flow (l/min)
15	1⇒2	2.6	2.9	0.1	42
				0.2	59
				0.3	72
	2⇒1	2.6	2.9	0.1	42
				0.2	59
				0.3	72
	2⇒3	2.5	2.8	0.1	40
				0.2	57
				0.3	70
	3⇒2	2.15	2.4	0.1	35
				0.2	49
				0.3	60
20	1⇒2	4.8	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



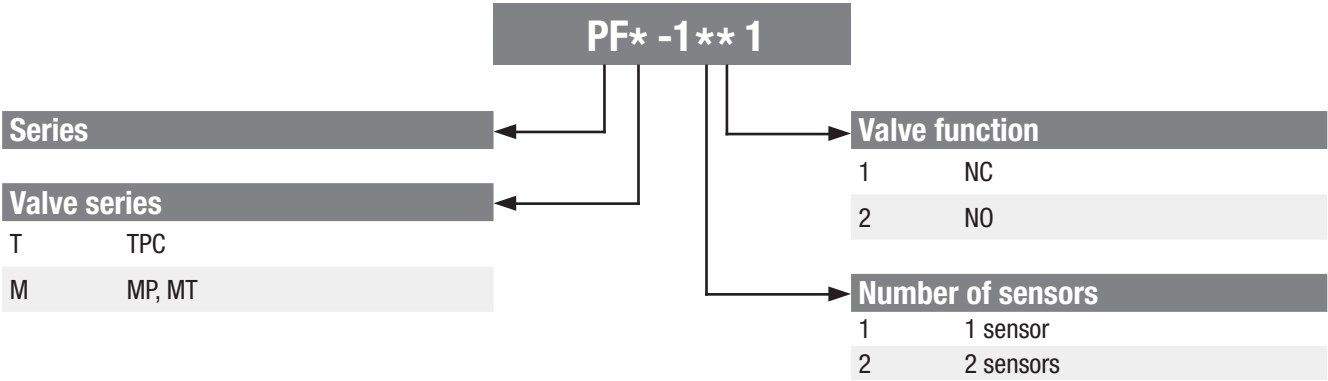
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Electrical valve feedback sensor series PF

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.

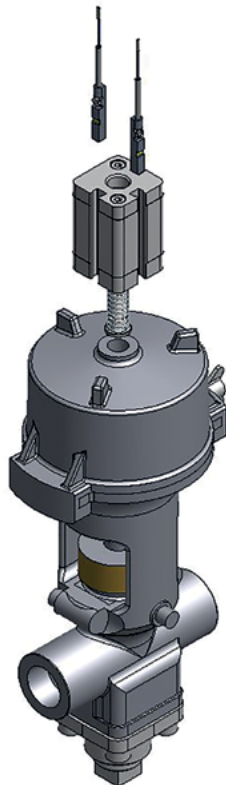


Order Code

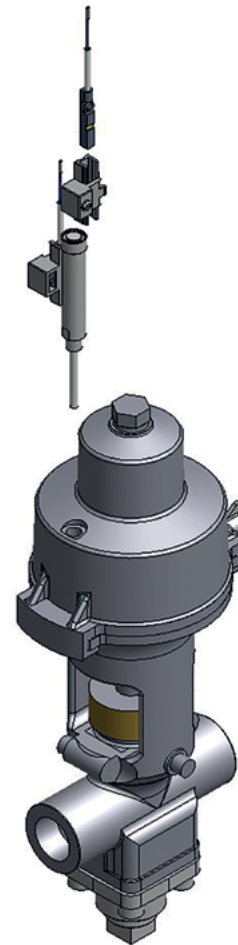


Installation

normally closed



normally open



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