

Diaphragm valve T4

with pneumatic actuating drive



Symbol photo



Symbol photo

This document does not constitute a guarantee, it is for initial information purposes only. The product range is continually upgraded, the designs and types therefore only reflect the state of the art at the time of printing.
Subject to technical modifications!

General:

- Material: PVC-U, PP, PVDF
- Seal material: EPDM, FPM
PTFE / EPDM
- Dimensions: DN15 – DN50
d20 – d63
1/2" – 2"

Connector types:

- Solvent socket DIN / ISO / ASTM / JIS
PVC
- Solvent spigot DIN
PVC
- Fusion spigot DIN
PP / PVDF
- Fusion socket DIN
PP / PVDF / PE
- Backing flange DIN / ANSI
PVDF
- Fix flange DIN / ANSI / JIS / BS
PVC / PP
- Fix flange DIN / ANSI / JIS / BS
PP / PVDF

Operating pressure: PN10

Control functions:

- NC – Normally closed
- NO – Normally open
- DA – Double acting

Features pneumatic actuating drive:

Body material: PA-GF
Control air socket: Stainless steel
Control air: Neutral gases / air
Installation position: Any, preferred
drive facing upwards

Technical features:

- Rapid opening and closing
- High flow rate
- Visual position indication
- NAMUR connector for solenoid valve

Accessories:

- Electrical position indicator
- Electropneumatic positioner
- 3/2 and 5/2 solenoid valve

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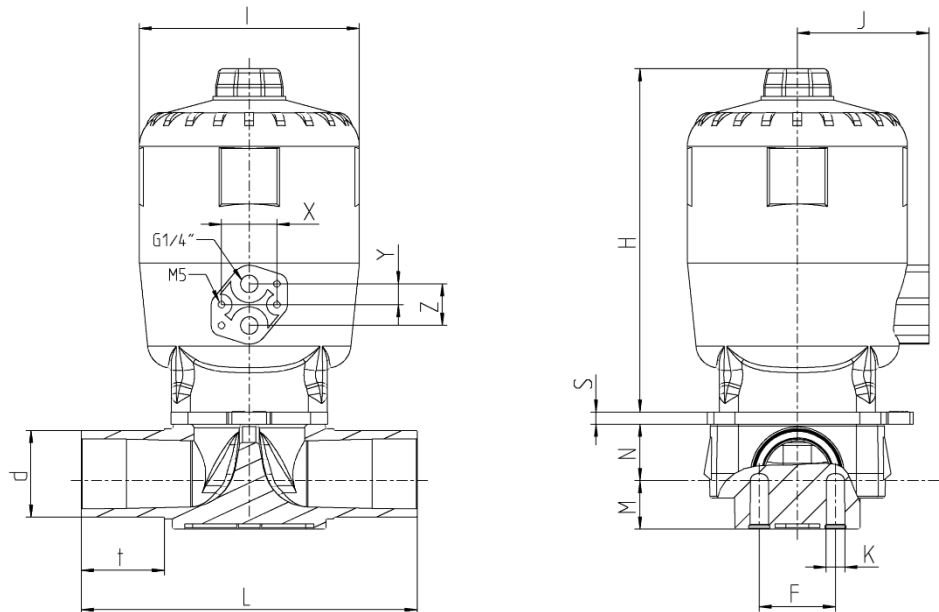
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Diaphragm valve T4

with pneumatic actuating drive

Dimensions:



PVC-U / PP / PVDF

Connector type

PVC solvent spigot

PP / PVDF fusion spigot

DN	15	20	25	32	40	50
d	20	25	32	40	50	63
inch	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
S	5	5	6	7	7	7.5
F	25	25	25	45	45	45
K	M6	M6	M6	M8	M8	M8
L	124	144	154	174	194	224
t _{SS} ¹	16	19	22	26	31	38
M _{PVC}	17	17	21	33	33	40.5
N _{PVC}	19	19	20	31	31	34.5
M _{PP / PVDF}	16.5	16.5	20	25.5	32	38.5
N _{PP / PVDF}	18	18	21	24	29	34.5
Drive	K62	K62	K82-62*	K82	K122	K123
H	129.5	129.5	151	151	240	240
I	80	80	100	100	160	160
J	52	52	60.5	60.5	87	87
X	32	32	32	32	32	32
Y	12	12	12	12	12	12
Z	24	24	24	24	30	30

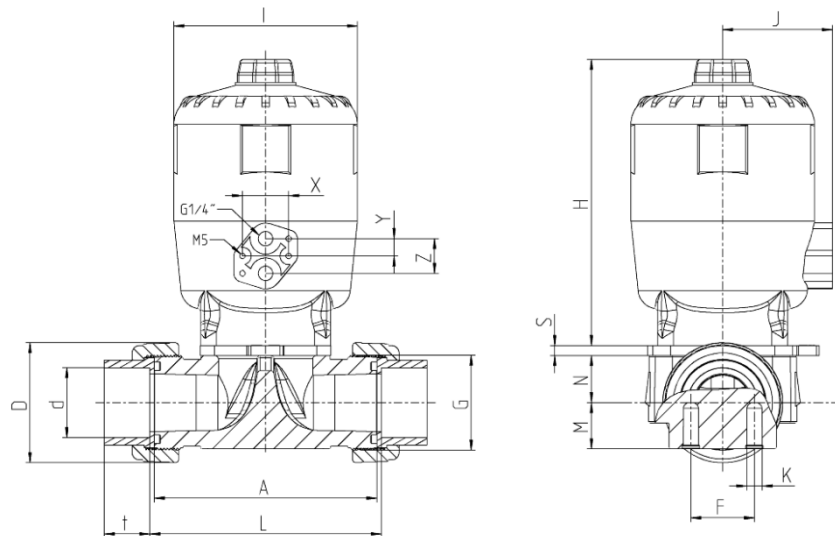
*For version PO-NC with PTFE-Membrane

¹ SS = Solvent spigot

Dimensions in mm

Diaphragm valve T4

with pneumatic actuating drive



PVC-U / PP / PVDF
Connector type
PVC solvent socket
PE / PP / PVDF fusion socket

		DN	15	20		25	32	40	50
		d	20	25		32	40	50	63
		inch	1/2"	3/4"		1"	1 1/4"	1 1/2"	2"
		G	1"	1 1/4"		1 1/2"	2"	2 1/4"	2 3/4"
			5	5		6	7	7	7.5
		F	25	25		25	45	45	45
		K	M6	M6		M6	M8	M8	M8
PVC	t _{SS} ¹	16	19		22	26	31	38	
	t _{FS} ² PE	16	17.5		19.5	22	25	29	
	A	90	108		116	136	154	184	
	D	44	53		60	74	83	103	
	M	17	17		21	33	33	40.5	
	L	97	114		122	142	160	190	
	L _{FS} ² PE	95	116		126	148	173	209	
PP / PVDF	t _{FS} ²	16	18		20	22**	24.5	29	
	A	90	108		116	136**	154	184	
	D	47	57		64	78	89	109	
	M	17	17		20	25.5	32	39	
	N	18	18		21	24	29	34.5	
	L	96	114		122	142**	161	190	
	Drive	K62	K62	K82-K62*	K82	K122		K123	
	H	129.5	129.5	129.5	151	151		240	
	I	80	80	100	100	160		160	
	J	52	52	60.5	60.5	87		87	
	X	32	32	32	32	32		32	
	Y	12	12	12	12	12		12	
	Z	24	24	24	24	30		30	

*For version PO-NC with PTFE-Membrane

**Exception PP: t_{FS}² = 34mm; A = 170mm; L = 176mm

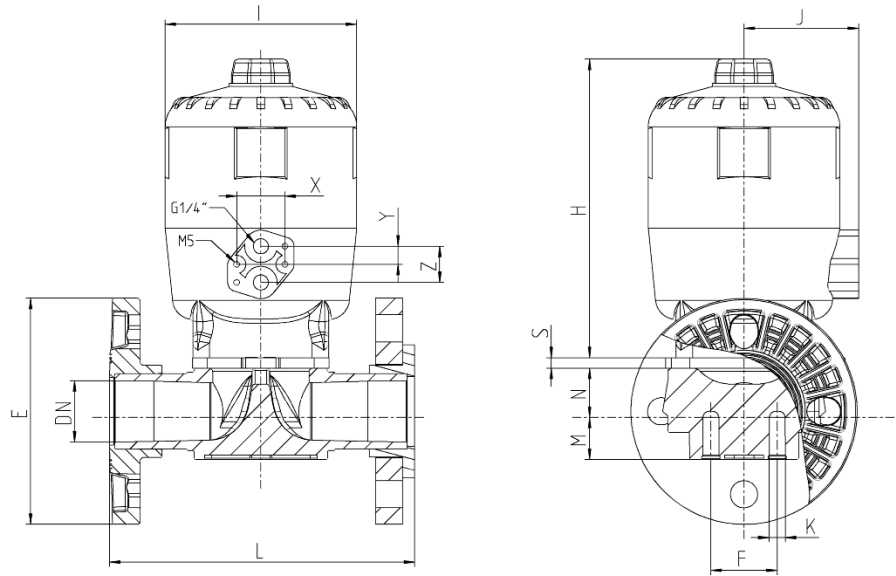
¹ SS = Solvent socket

² FS = Fusion socket

Dimensions in mm

Diaphragm valve T4

with pneumatic actuating drive



PVC-U / PP / PVDF

Connector type

PVC/PP fix flange

PVDF with PP backing flange with steel inlay

DN		15	20	25	32	40	50
d		20	25	32	40	50	63
inch		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
S		5	5	6	7	7	7
F		25	25	25	45	45	45
K		M6	M6	M6	M8	M8	M8
PVC	E _{FF} ²	97	105	125	140	150	165
	M	17	17	21	33	33	40.5
	N	19	19	20	31	31	34.5
	L _{FF} ²	130	150	160	180	200	230
PP / PVDF	E _{PVDF BF} ¹	95	-	-	-	-	-
	E _{PP FF} ²	95	-	-	-	-	-
	M	17	17	20	25.5	32	39
	N	18	18	21	24	29	34.5
	L _{PVDF BF} ¹	130	-	-	-	-	-
	L _{PP FF} ²	130	-	-	-	-	-
Drive		K62	K62	K82-62*	K82	K122	K123
H		129.5	129.5	151	151	240	240
I		80	80	100	100	160	160
J		52	52	60.5	60.5	87	87
X		32	32	32	32	32	32
Y		12	12	12	12	12	12
Z		24	24	24	24	30	30

*For version PO-NC with PTFE-Membrane

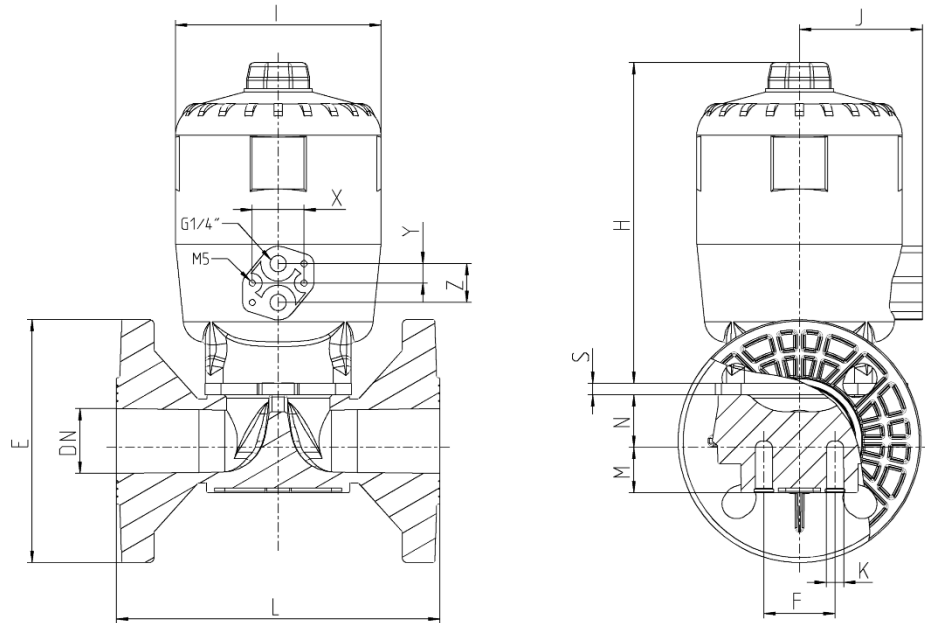
¹ BF = Backing flange

² FF = Fix flange

Dimensions in mm

Diaphragm valve T4

with pneumatic actuating drive



PP / PVDF
Connector type
 PP / PVDF fix flange

DN	20	25	32	40	50
d	25	32	40	50	63
inch	3/4"	1"	1 1/4"	1 1/2"	2"
S	5	6	7	7	7.5
F	25	25	45	45	45
K	M6	M6	M8	M8	M8
M	17	20	25.5	32	39
N	18	21	24	29	34.5
E	105	125	140	150	165
L	150	160	180	200	230
Drive	K62	K82-62*	K82	K122	K123
H	129.5	151	151	240	240
I	80	100	100	160	160
J	52	60.5	60.5	87	87
X	32	32	32	32	32
Y	12	12	12	12	12
Z	24	24	24	30	30

*For version PO-NC with PTFE-Membrane

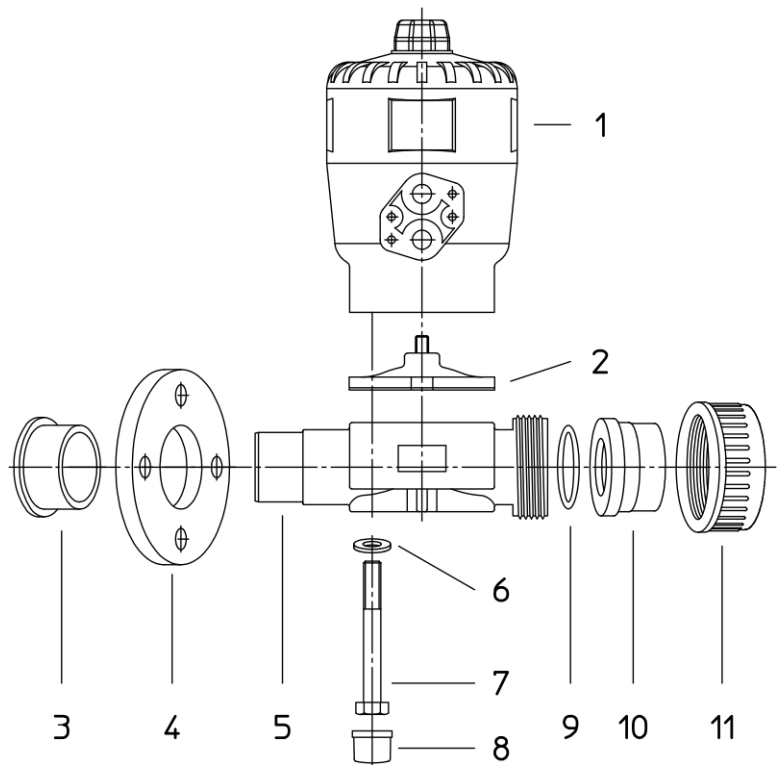
Dimensions in mm

Diaphragm valve T4

with pneumatic actuating drive

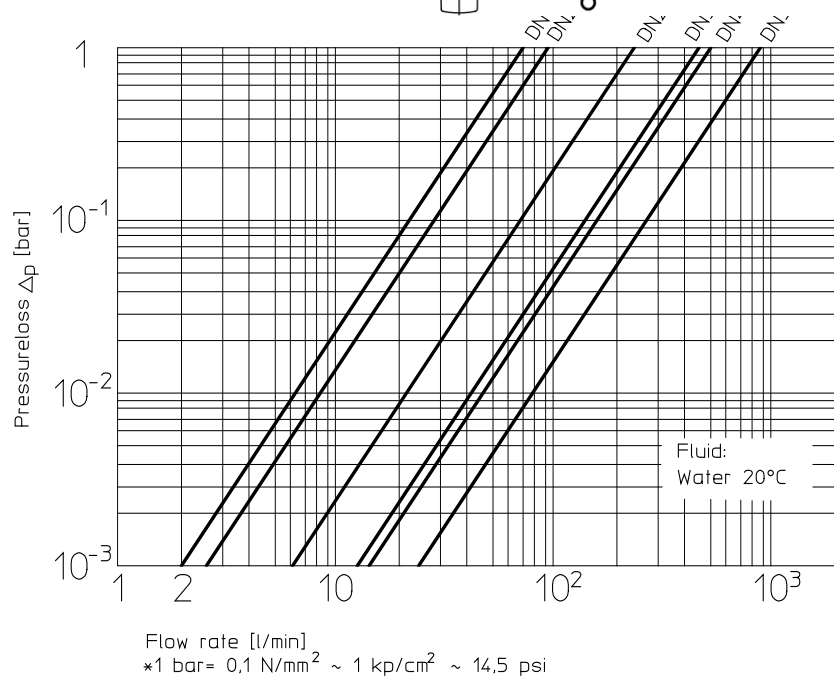
Exploded drawing:

- 01. Pneumatic actuating drive
- 02. Diaphragm
- 03. Flange adaptor
- 04. Flange
- 05. Lower part
- 06. Washer
- 07. Hexagon bolt
- 08. Cap
- 09. O-ring
- 10. Solvent socket
- 11. Union nut



Diagrams:

Pressure loss diagram

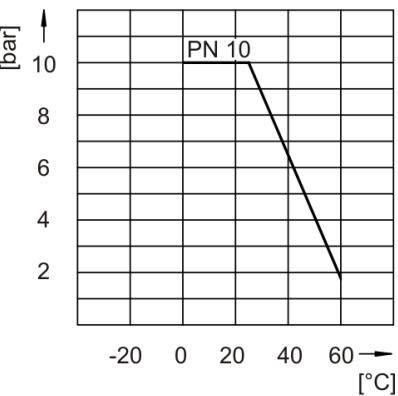


Cv value table

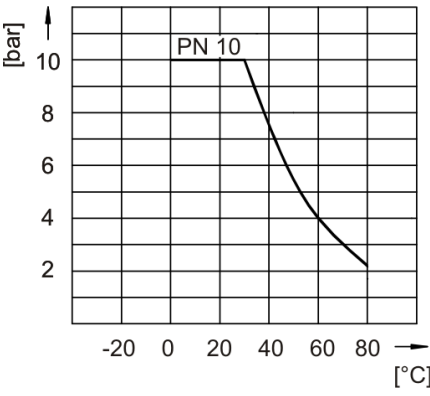
Pressure loss	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125
1 bar	70 l/min	95 l/min	250 l/min	450 l/min	500 l/min	880 l/min	1.100 l/min	1.700 l/min	2.700 l/min	4.000 l/min

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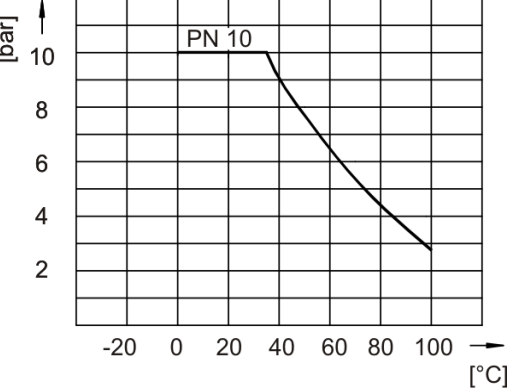
Pressure – Temperature diagram – PVC-U



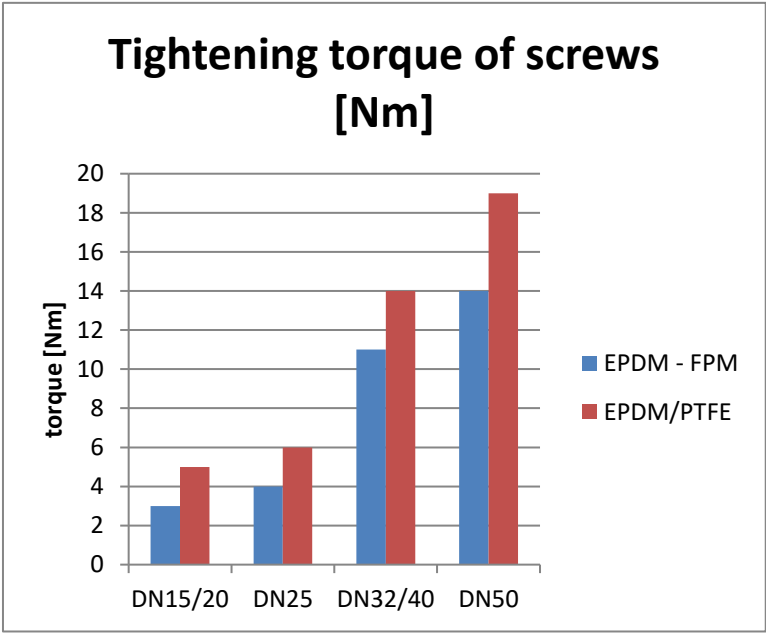
Pressure – Temperature diagram - PP



Pressure – Temperature diagram - PVDF



Tightening torque of screws



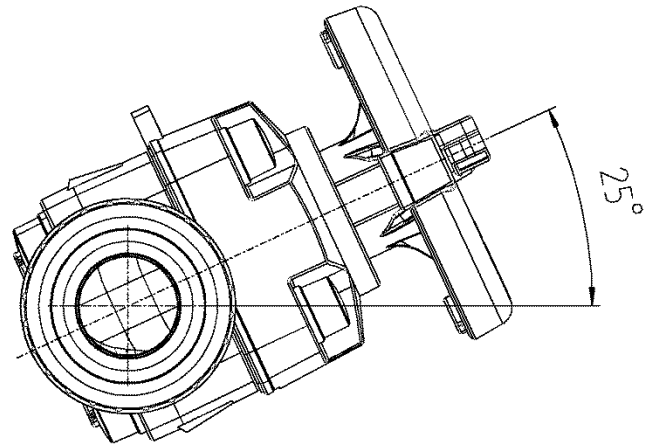
Tightening torque of screws [Nm]		
Dimension	EPDM - FPM	EPDM/PTFE
DN15/20	3	5
DN25	4	6
DN32/40	11	14
DN50	14	19

Diaphragm valve T4

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Emptying of diaphragm valves

In order to achieve the optimum emptying of the diaphragm valve in horizontal mounted piping systems, we recommend the installation of the diaphragm valve according to the respective angle of rotation and an installation down-grade about 2°.



Control pressure technical data:

Drive	Control pressure
K62	5.5 – 10 bar
K82-62	5.5 – 10 bar
K82	5.5 – 10 bar
K122	5.5 – 10 bar
K123	5.5 – 10 bar

Accessories:

Solenoid Valve NAMUR

General:

- Solenoid valve NAMUR with combined 5/2- and 3/2- ways function + standard coil
- Easy switch from 5/2- to 3/2-ways by turning around the sealing-plate
- Manual override as standard

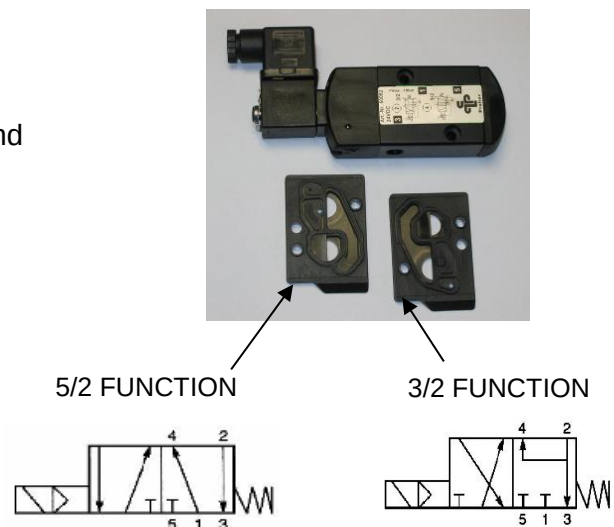
Material:

- Body: aluminium anodized
- Piston: aluminium
- Seals: NBR
- Screws and spring: stainless steel

Voltage:

- 24 V DC (3W)
- 230 V AC (5VA)

ATTENTION: For diaphragm valves with pneumatic actuating drive K122 / K123 (DN32 - DN50) an additional adapter (item 50826) is required.



Diaphragm valve T4 with pneumatic actuating drive

Electrical position indicator

Specifications

Body	: Polyamide
Cover:	: Polycarbonate
Connector	: PG11 union
Ambient temperature	: -10°C to +80°C
Voltage ranges	: 12-24 V AC/DC
	: 110 – 250 V AC/DC
Degree of protection	: IP65



Electropneumatic positioner

Specifications

Body	: Aluminum anodized
Seals	: NBR / FKM
Medium	: Air or neutral gases filtered, oiled or unoled
Connector	: G 1/8"
Pressure range	: Max. 10 bar input pressure
Temperature	
▪ Medium	: 0°C to 60°C
▪ Environment	: 0°C to 50 °C
Setpoint	: 0 – 10 V
	: 0 – 20 mA
	: 4 – 20 mA
Degree of protection	: IP65
Voltage	: 24V
Following voltage failure	: Optionally, the position is held or the drive is vented



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