

Diaphragm valve T4 with pneumatic actuating drive



Symbol photo

PRAHER
PLASTICS




Symbol photo

General:

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

Connector types:

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

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:

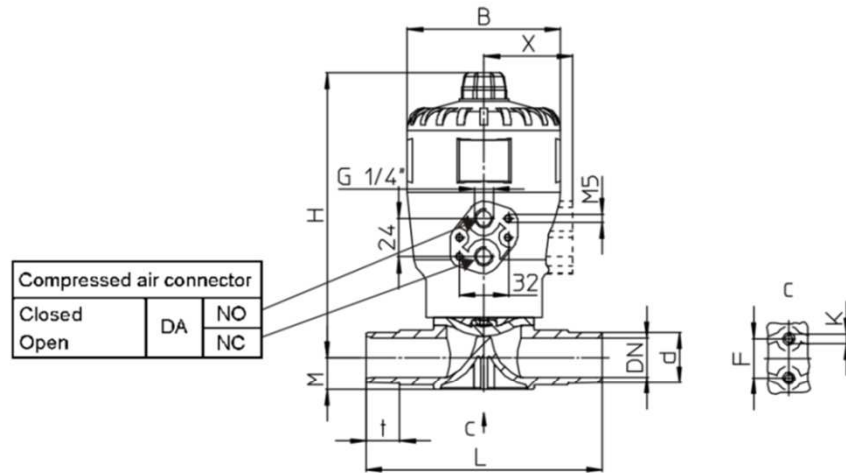
- Rapid opening and closing
- High flow rate
- Visual position indication
- NAMUR connector for solenoid valve

Accessories:

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

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!

Dimensions:



PVC-U / PP / PVDF

Connector type

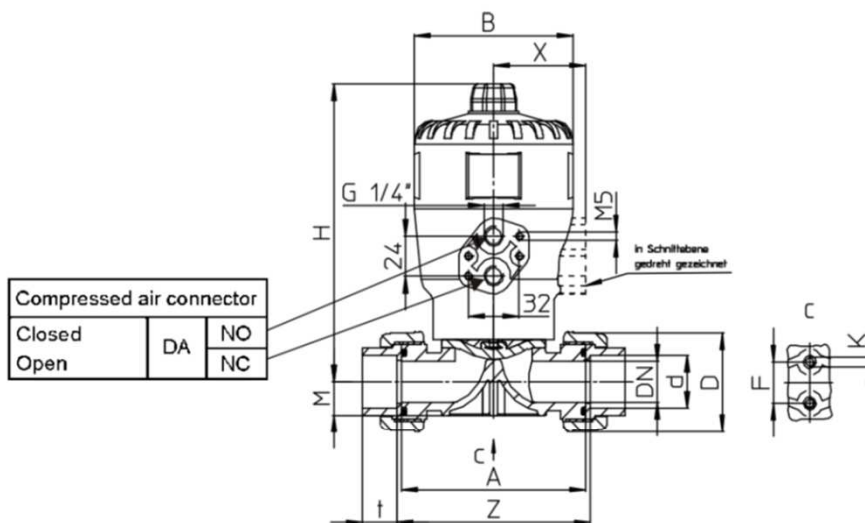
PVC solvent spigot

PP / PVDF fusion spigot

DN	15	20	25	32	40	50	
d	20	25	32	40	50	63	
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	
M _{PP / PVDF}	16.5	16.5	20	25.5	32	38.5	
Drive	K52	K62	K62	K82	K82	K122	K123
B	63	80	80	100	100	160	160
H	126.5	148	148	265.5	265.5	278	282.5
X	44	52	52	60.5	60.5	87	87

Dimensions in mm

¹ SSP = Solvent spigot



PVC-U / PP / PVDF

Connector type

PVC solvent socket / threaded socket

PE / PP / PVDF fusion socket

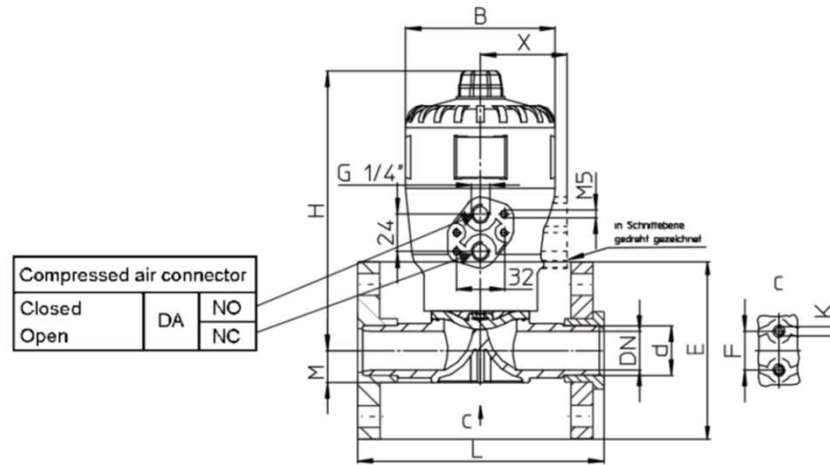
DN	15	20	25	32	40	50	
d	20	25	32	40	50	63	
G _{TS} ¹	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
F	25	25	25	45	45	45	
K	M6	M6	M6	M8	M8	M8	
PVC	t _{SS} ²	16	19	22	26	31	38
	t _{FS} ³ PE	16	17.5	19.5	22	25	29
	A	90	108	116	136	154	184
	D	43	53	60	74	83	103
	M	17	17	21	33	33	40.5
	Z	96	114	122	142	160	190
Z _{FS} ³ 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	16.5	16.5	20	25.5	32	38.5
	Z	96	114	122	142	161	190
Drive	K52	K62	K62	K82	K82	K122	K123
B	63	80	80	100	100	160	160
H	126.5	148	148	265.5	265.5	278	282.5
X	44	52	52	60.5	60.5	87	87

Dimensions in mm

¹ TSO = Threaded socket

³ FSO = Fusion socket

² SSO = Solvent socket



PVC-U / PP / PVDF

Connector type

PVC backing flange / fix flange

PP backing flange with steel inlay / fix flange

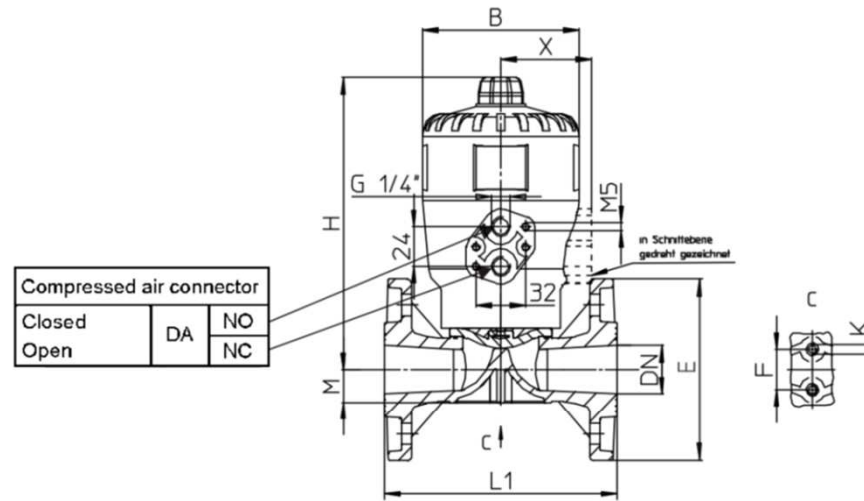
	DN	15	20	25	32	40	50
	d	20	25	32	40	50	63
	F	25	25	25	45	45	45
	K	M6	M6	M6	M8	M8	M8
PVC	E _{BF} ¹	95	105	115	140	150	165
	E _{FF} ²	97	105	125	140	150	165
	M	17	17	21	33	33	40.5
	L _{BF} ¹ FF ²	130	150	160	180	200	230
PP / PVDF	E _{BF} ¹ DIN	95	108	115	140	151	165
	E _{BF} ¹ ANSI	95	102	114	130	133	162
	E _{FF} ²	95	105	115	-	-	-
	M	16.5	16.5	20	25.5	32	38.5
	L _{BF} ¹	130	150	160	180	200	230
	L _{FF} ²	130	150	160	-	-	-
Drive	K52	K62	K62	K82	K82	K122	K123
B	63	80	80	100	100	160	160
H	126.5	148	148	265.5	265.5	278	282.5
X	44	52	52	60.5	60.5	87	87

Dimensions in mm

¹ BF = Backing flange

² FF = Fix flange

- = Currently not realised



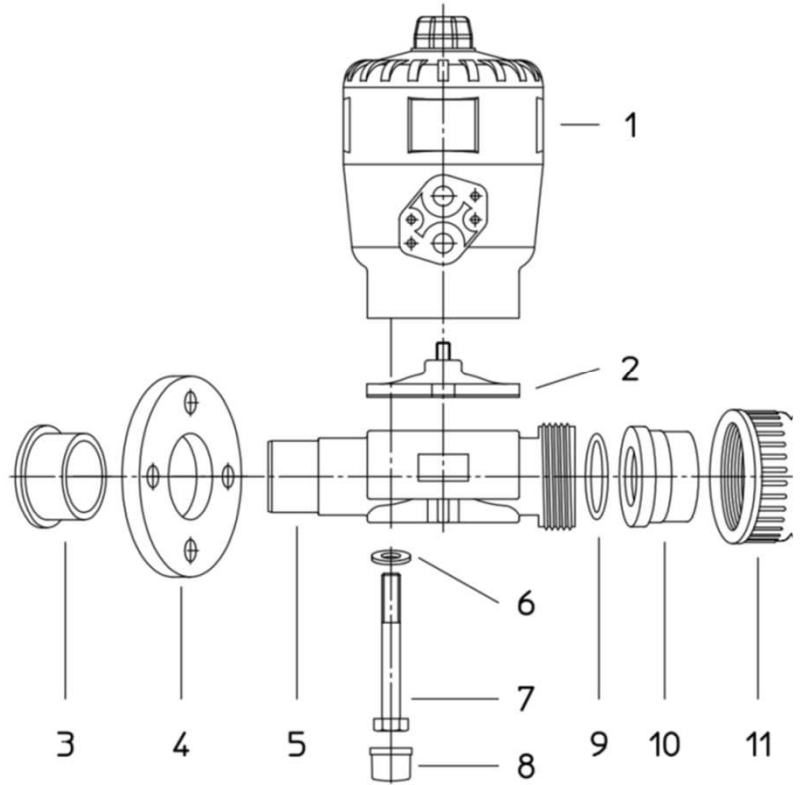
PP / PVDF
Connector type
PP / PVDF fix flange

DN	32	40	50
d	40	50	63
F	45	45	45
K	M8	M8	M8
M	33	33	40.5
E	140	150	165
L1	180	200	230
Drive	K122		K123
B	160		160
H	278		282.5
X	87		87

Dimensions in mm

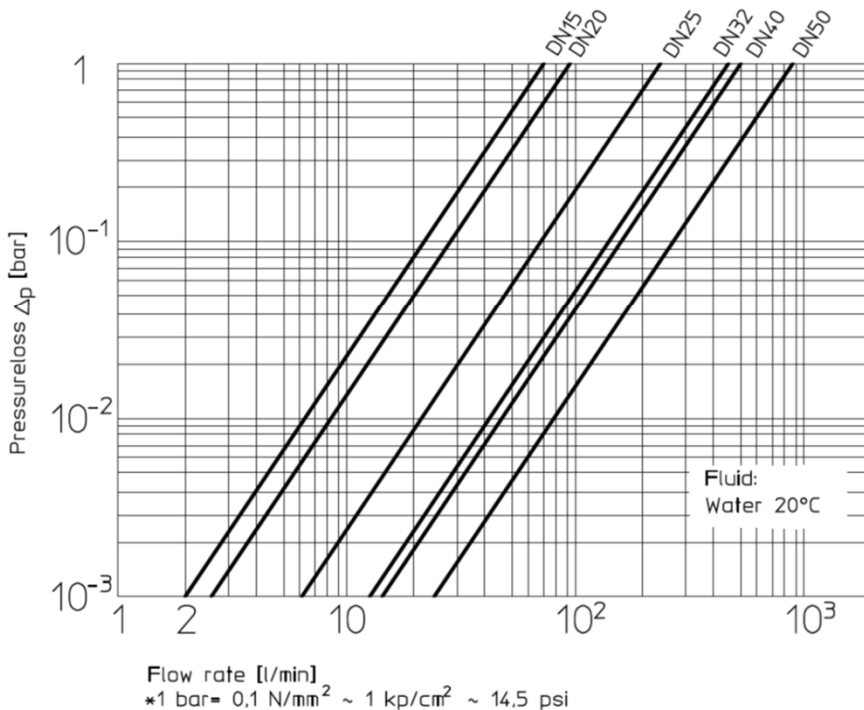
Exploded drawing:

- 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:

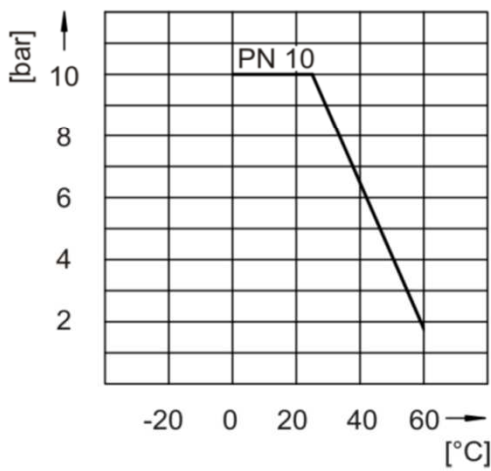
Pressure loss diagram



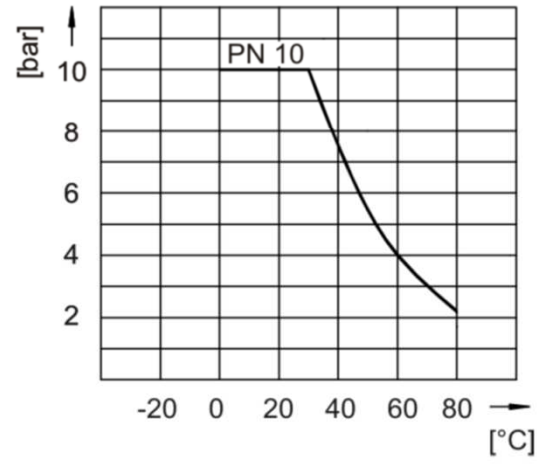
Cv value table

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

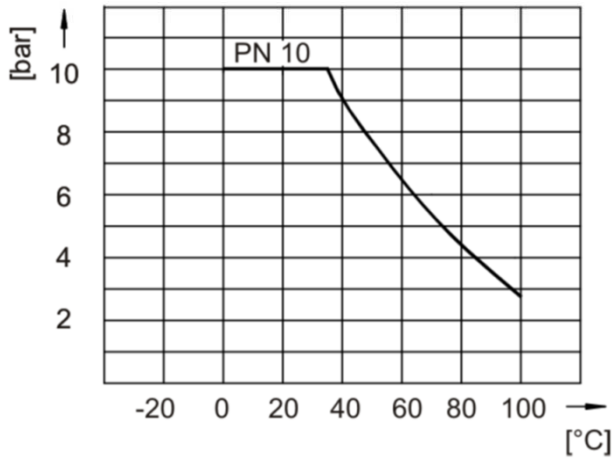
Pressure – Temperature diagram – PVC-U



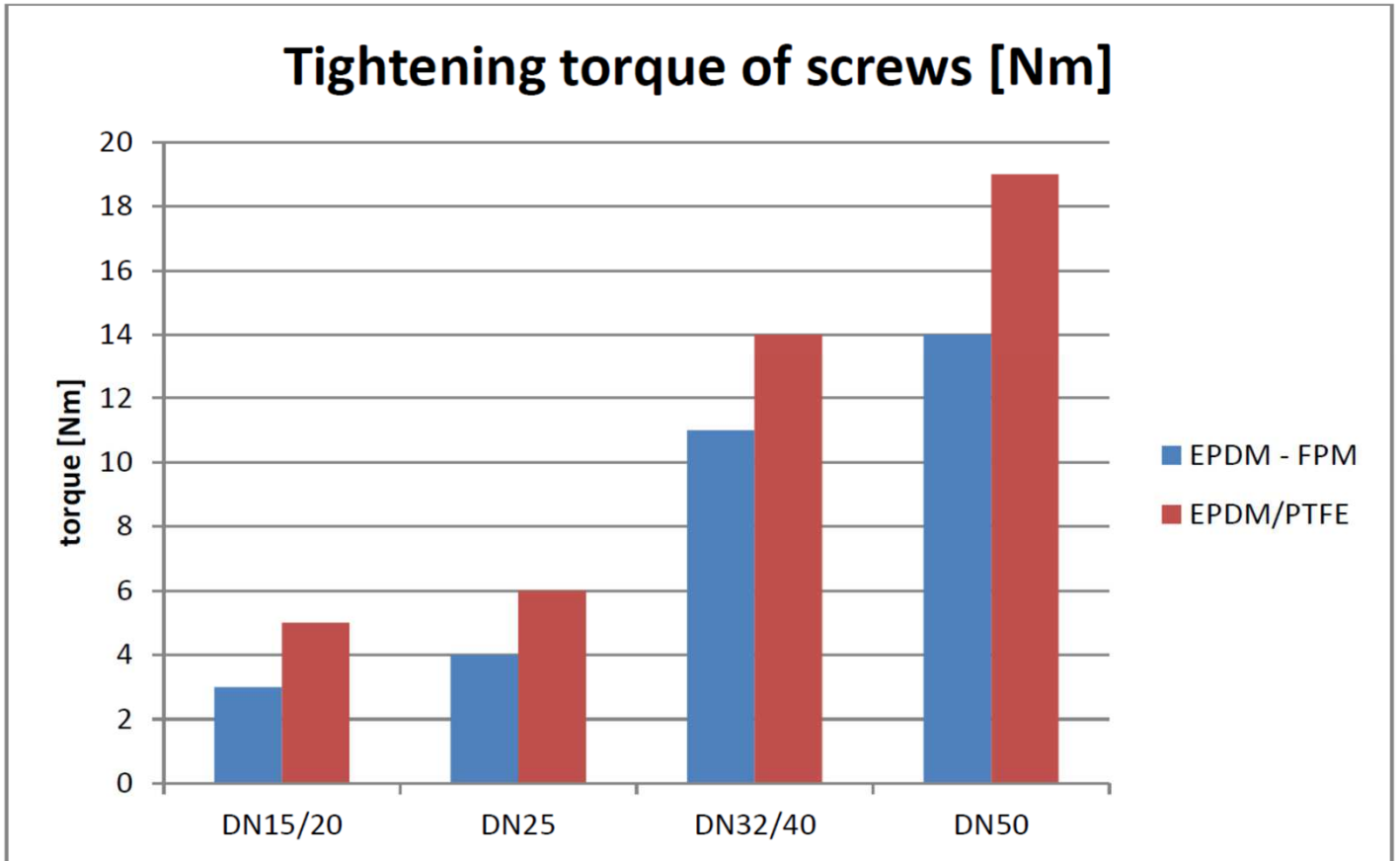
Pressure – Temperature diagram - PP



Pressure – Temperature diagram - PVDF



Tightening torque of screws



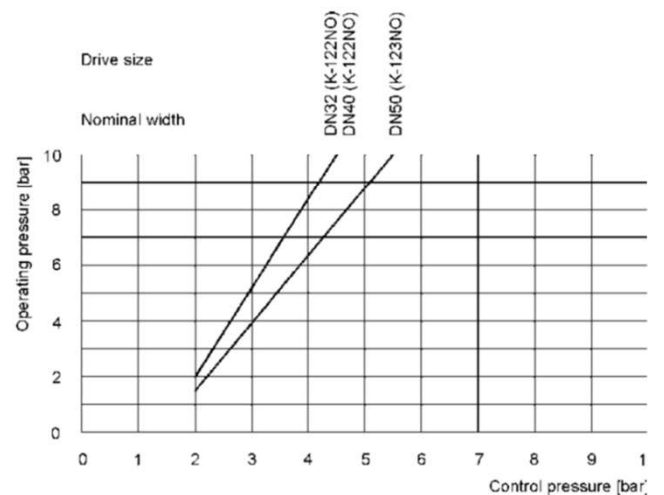
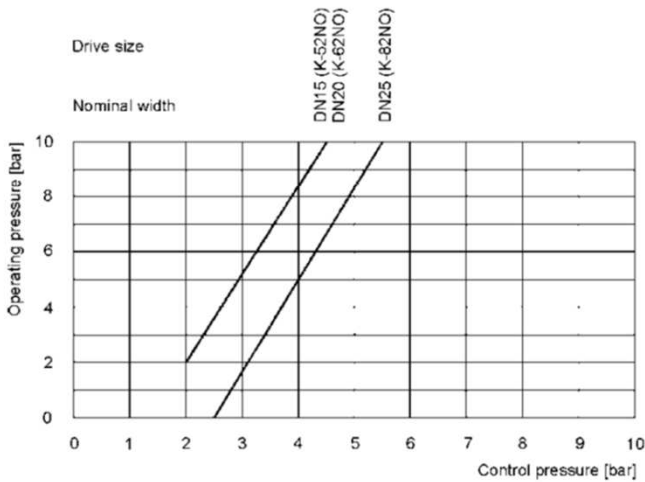
Tightening torque of screws [Nm]		
Dimension	EPDM - FPM	EPDM/PTFE
DN15/20	3	5
DN25	4	6
DN32/40	11	14
DN50	14	19

Control pressure technical data:

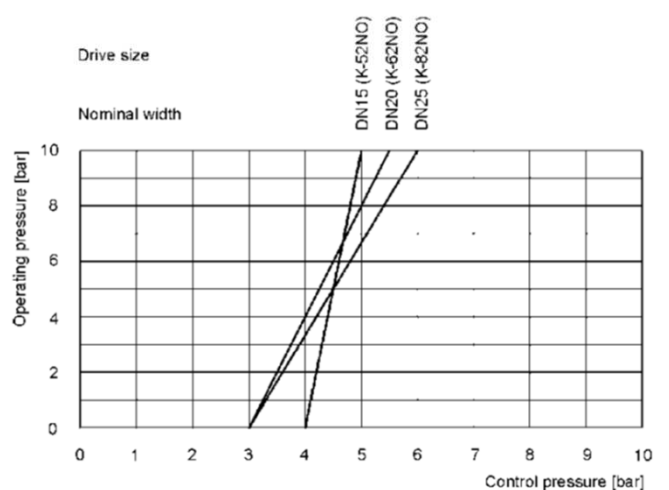
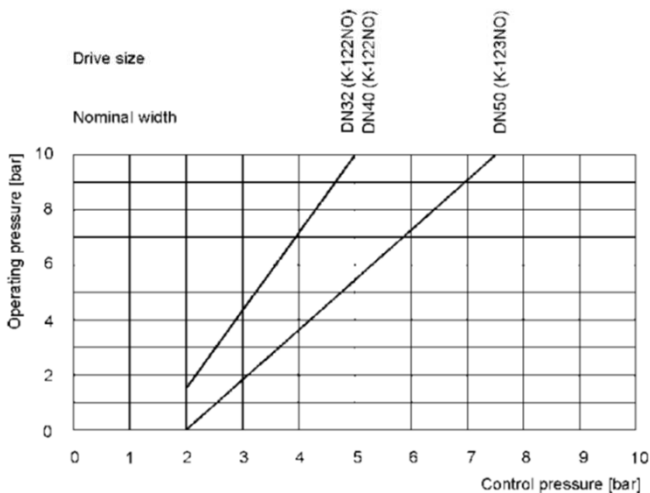
NC function (Spring force closing)

DN	d	Drive size	Control pressure bar	Max. operating pressure for seal material	
				EPDM / FPM	PTFE / EPDM
				bar	bar
15	20	K-52 NC	5.0 – 10	10	5
		K-62 NC	5.0 – 10	-	10
20	25	K-62 NC	5.5 – 10	10	5
		K-82 NC	5.0 – 10	-	10
25	32	K-82 NC	5.5 – 10	10	10
32	40	K-122 NC	5.5 – 10	10	10
40	50	K-122 NC	5.5 – 10	10	10
50	63	K-123 NC	5.5 – 10	10	10

NO function (spring force opening) and DA function (double-acting) EPDM/FPM diaphragm



function (spring force opening) and DA function (double-acting) PTFE diaphragm



Accessories:

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

