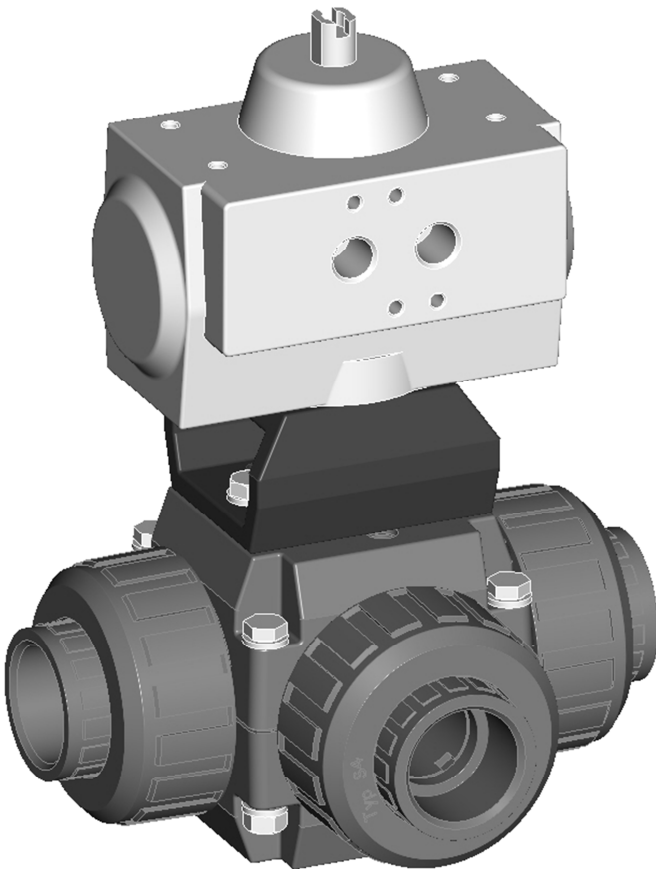


## 3 way ball valve S4 with pneumatic actuator



### General:

- Material: PVC-U / PP / PVDF
- Sealing material: EPDM / FPM
- Ball seating joint: PTFE
- ball: L- or T-bore
- Dimensions:
  - DN10 (DN15) d16 3/8"
  - DN15 d20 1/2"
  - DN20 (DN25) d25 3/4"
  - DN25 d32 1"
  - DN32 (DN40) d40 1 1/4"
  - DN40 d50 1 1/2"
  - DN50 d63 2"

### Connector types

#### PVC-U

- Solvent socket DIN
- Solvent spigot DIN
- Threaded socket BSP

#### PP

- Fusions socket DIN
- Fusion spigot DIN

#### PVDF

- Fusion socket DIN
- Fusion spigot DIN

Further connector types on request

### Operating pressure:

DN10 d16 d3/8" – DN50 d63 d2" PN10

### Technical features:

#### Ball valve

- Double sided blocked ball
- Mechined ball valve
- Full section area of flow (nominal bore)
- Floating ball

#### Pneumatic actuator

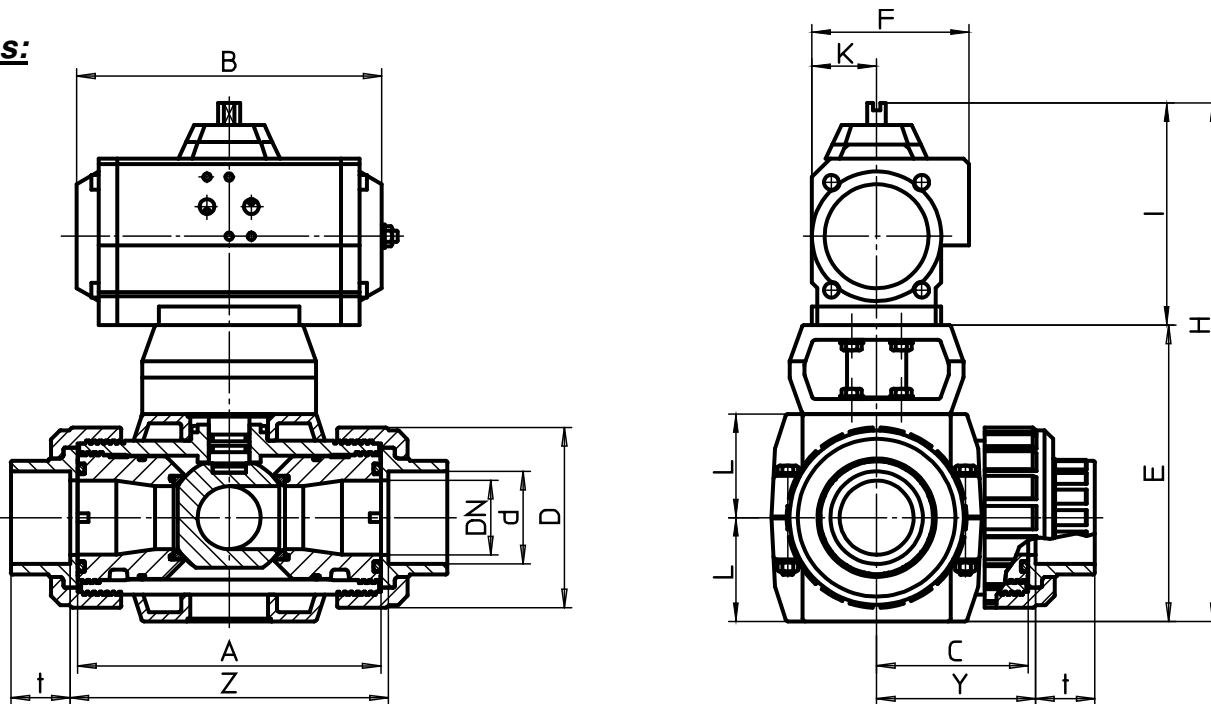
Technical details and accessories see from page 8

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!

### 3 way ball valve S4 with pneumatic actuator



**Dimensions:**



**PVC-U**  
Connector types  
PVC solvent socket

DN	10	15	20	25	32	40	50
<b>d</b>	16	20	25	32	40	50	63
<b>G</b> TSO <sup>1</sup>	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>A</b>	100	100	120	120	162	162	181
<b>C</b>	50	50	60	60	81	81	90,5
<b>D</b>	53	52,5	70	70	101	101	124,5
<b>E</b>	105	105	122	122	160	160	178
<b>L</b>	33,5	33,5	42	42	56	56	65
<b>t</b> sso <sup>2</sup>	16	16,5	20	23	27,5	32	38,5
<b>Y</b>	53	53	63	63	84,5	85,5	96,5
<b>Z</b> sso <sup>2</sup>	106	105,5	126	126	169	170,5	192,5
<b>PN</b>	10	10	10	10	10	10	10
<b>actuator</b>	UT05 DA				UT15 DA		
<b>B</b>	119	119	119	119	165	165	165
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	223	223	281	281	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35
<b>actuator</b>	UT05 SR				UT15 SR		UT17 SR
<b>B</b>	119	119	119	119	165	165	197
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	223	223	281	281	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35

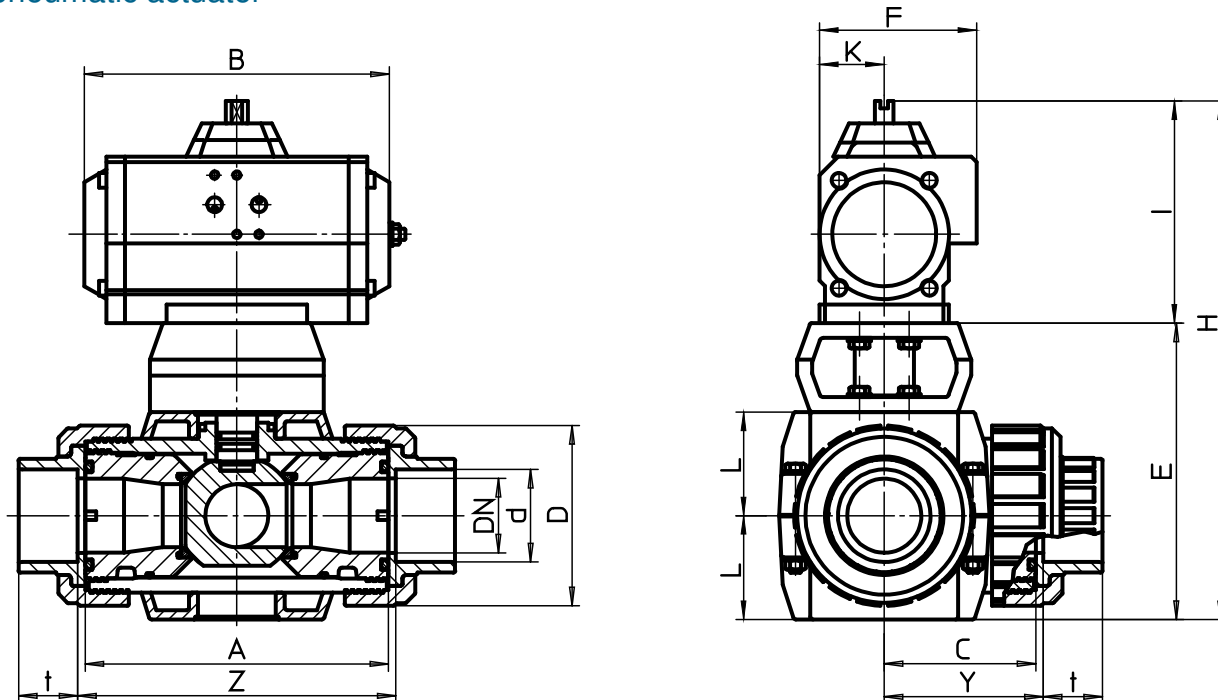
further dimensions see data sheet 3W KH S4 hand operated

dimensions in mm

<sup>1</sup> TSO = threaded socket

<sup>2</sup> SSO = solvent socket

### 3 way ball valve S4 with pneumatic actuator



**PP**  
Connector types  
PP fusion socket

DN	10	15	20	25	32	40	50
<b>d</b>	16	20	25	32	40	50	63
<b>G</b> <sub>TSO</sub> <sup>1</sup>	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>A</b>	98	98	118	118	159	159	177
<b>C</b>	49	49	59	59	79,5	79,5	88,5
<b>D</b>	53	53	71	71	100	100	120,5
<b>E</b>	105	105	123	123	161	161	178
<b>L</b>	33,5	33,5	42,5	42,5	56,5	56,5	65
<b>t</b> <sub>FSO</sub> <sup>2</sup>	13	16	17	19,5	21	25,5	29
<b>Y</b>	53,5	52	64,5	64,5	88	89	102
<b>Z</b> <sub>FSO</sub> <sup>2</sup>	107	104	129	129	176	178	204
<b>PN</b>	10	10	10	10	10	10	10
<b>actuator</b>	UT05 DA				UT15 DA		
<b>B</b>	119	119	119	119	165	165	165
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	224	224	282	282	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35
<b>actuator</b>	UT05 SR				UT15 SR		UT17 SR
<b>B</b>	119	119	119	119	165	165	197
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	224	224	282	282	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35

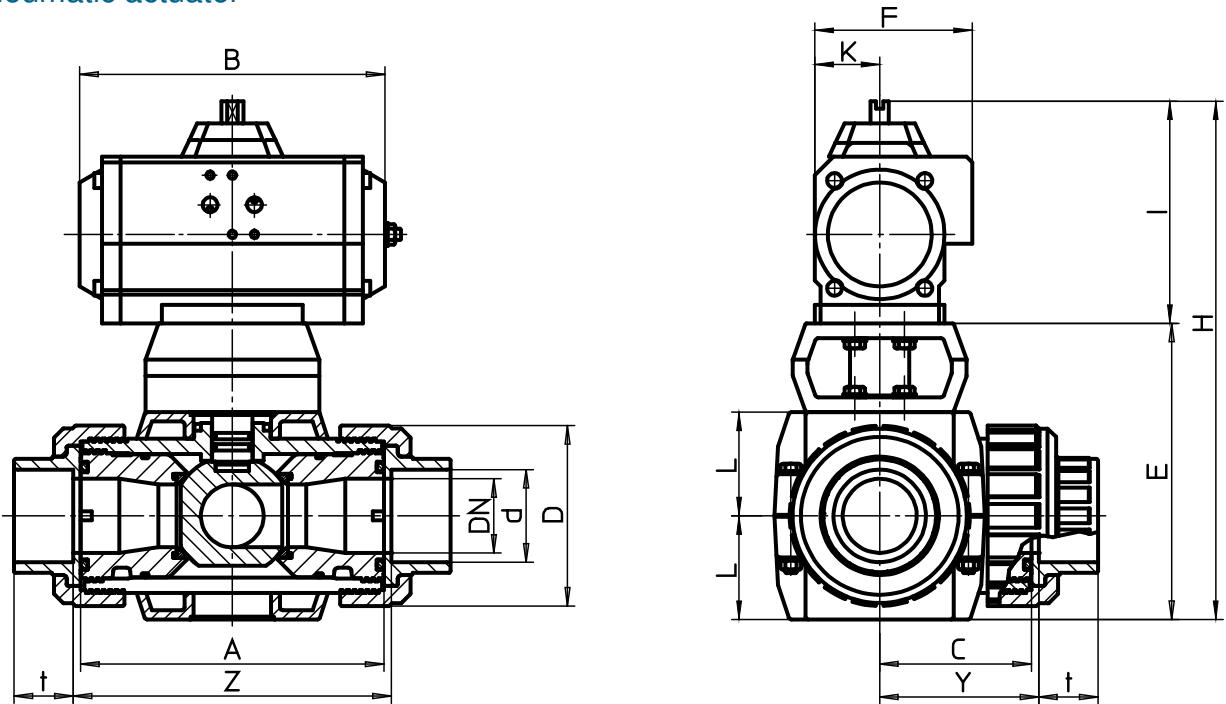
further dimensions see data sheet 3W KH S4 hand operated

dimensions in mm

<sup>1</sup>TSO = threaded socket

<sup>2</sup>FSO = fusion socket

### 3 way ball valve S4 with pneumatic actuator



**PVDF**

**Connector types**

PVDF fusion socket

DN	10	15	20	25	32	40	50
<b>d</b>	16	20	25	32	40	50	63
<b>G</b> TSO <sup>1</sup>	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>A</b>	98	98	117	117	158	158	176
<b>C</b>	49	49	58,5	58,5	79	79	88
<b>D</b>	52,5	52,5	70	70	98,5	98,5	118
<b>E</b>	105	105	123	123	161	161	178
<b>L</b>	33,5	33,5	42,5	42,5	56,5	56,5	65
<b>t</b> FSO <sup>2</sup>	14,5	16	17	19,5	21	25,5	29,5
<b>Y</b>	53	52	64	64	88	88,5	101,5
<b>Z</b> FSO <sup>2</sup>	106	103,5	127,5	128	175,5	177	203
<b>PN</b>	10	10	10	10	10	10	10
<b>actuator</b>	<b>UT05 DA</b>				<b>UT15 DA</b>		
<b>B</b>	119	119	119	119	165	165	165
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	224	224	282	282	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35
<b>actuator</b>	<b>UT05 SR</b>				<b>UT15 SR</b>		<b>UT17 SR</b>
<b>B</b>	119	119	119	119	165	165	197
<b>F</b>	67	67	67	67	85	85	85
<b>H</b>	206	206	224	224	282	282	299
<b>I</b>	101	101	101	101	121	121	121
<b>K</b>	27	27	27	27	35	35	35

further dimensions see data sheet 3W KH S4 hand operated

dimensions in mm

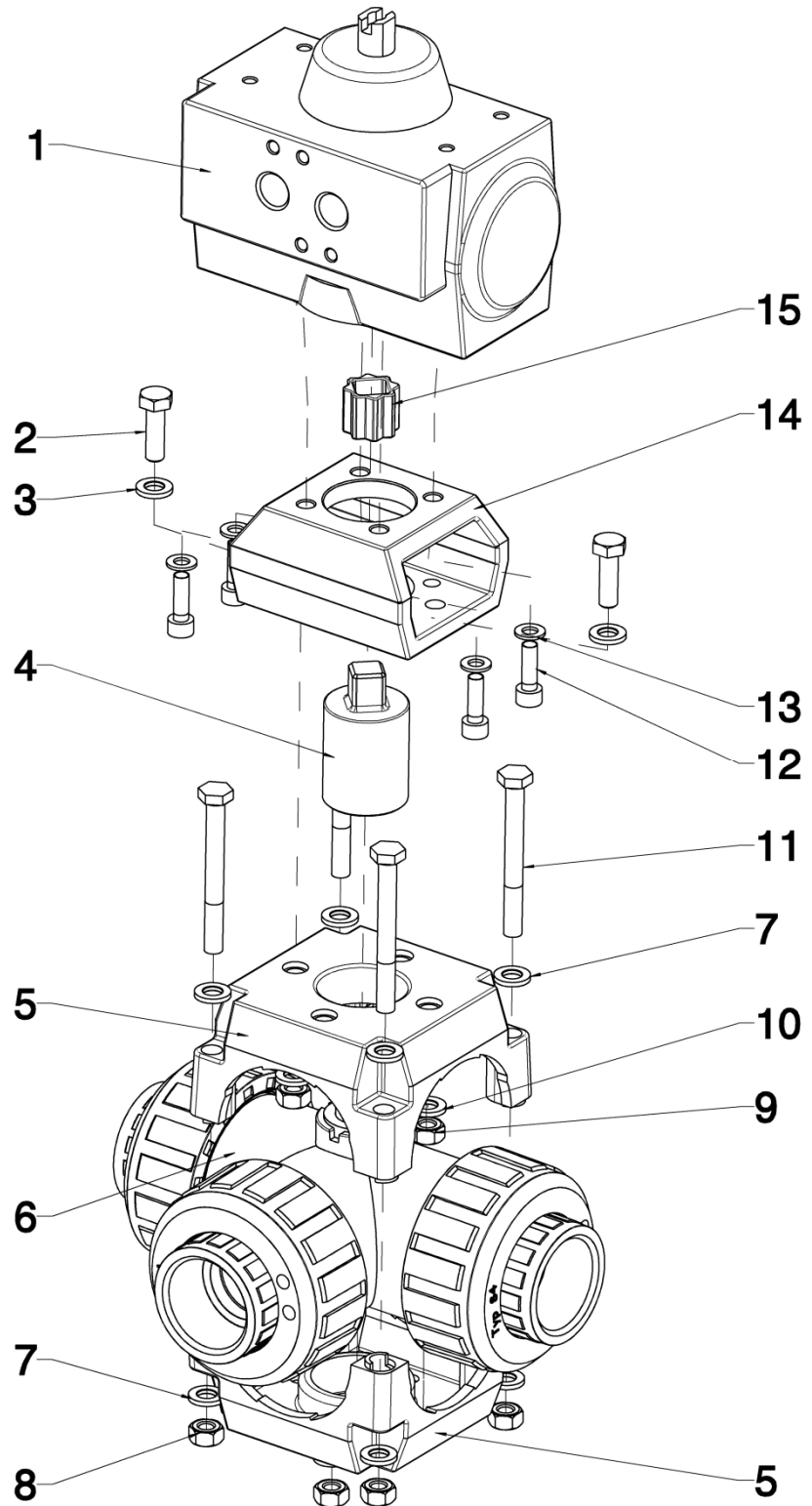
<sup>1</sup> TSO = threaded socket

<sup>2</sup> FSO = fusion socket

**3 way ball valve S4**  
with pneumatic actuator

**Exploded drawing:**

- 01. Actuator
- 02. Hexagon screw
- 03. Toothed washer
- 04. Clutch
- 05. Valve bracket
- 06. Ball valve
- 07. Washer
- 08. Hexagon nut
- 09. Hexagon nut
- 10. Toothed washer
- 11. Hexagon screw
- 12. Hexagon socket screw
- 13. Toothed washer
- 14. Console
- 15. Reduction

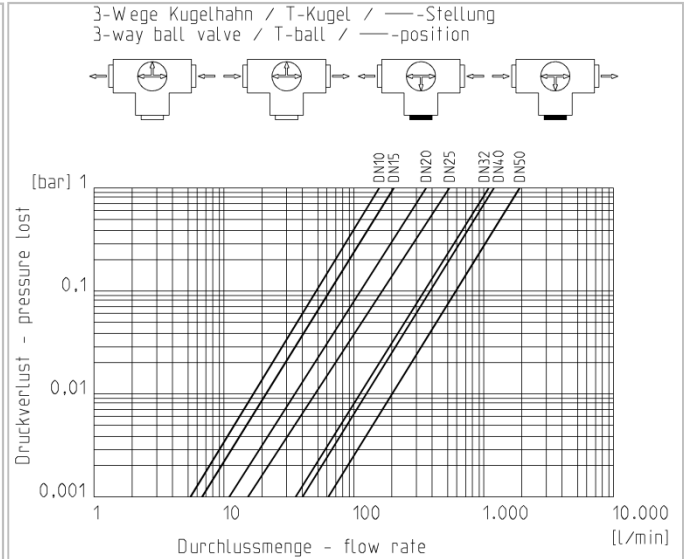
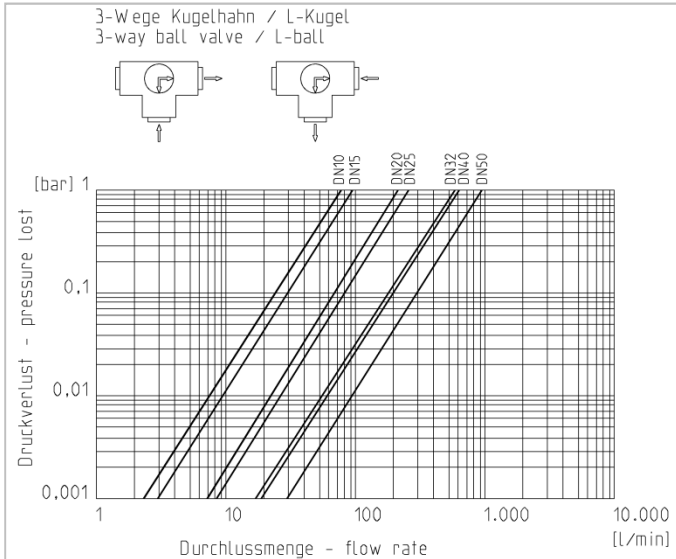


### 3 way ball valve S4 with pneumatic actuator



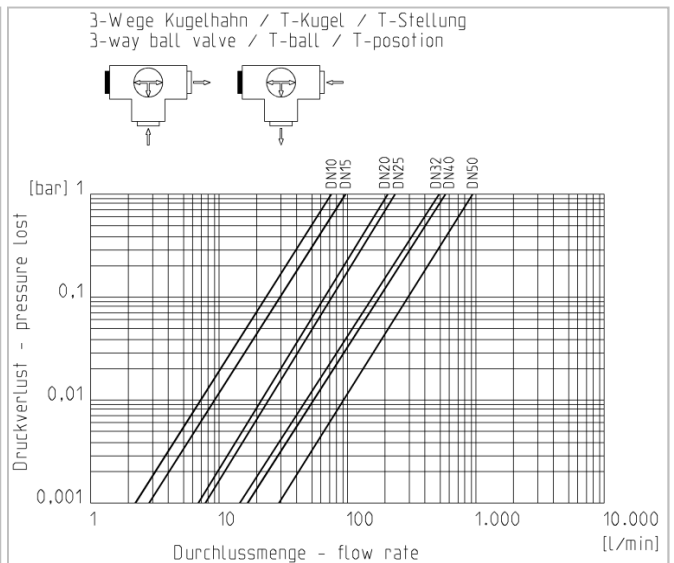
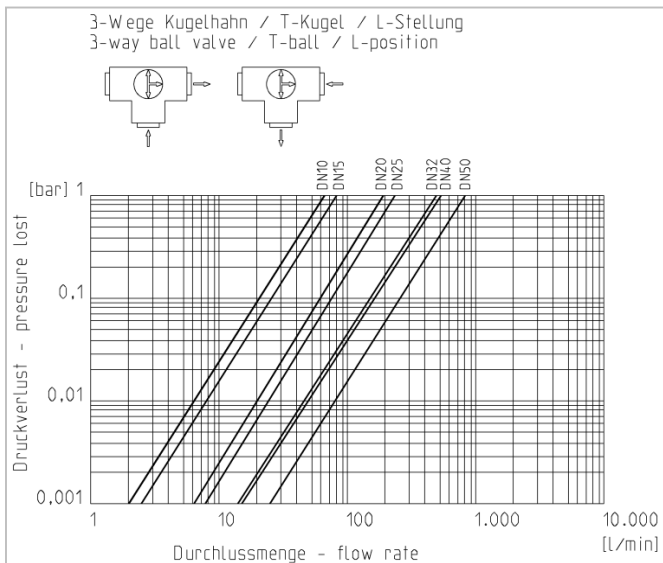
**Diagrams:**

**Pressure loss diagram**



DN10	DN15	DN20	DN25	DN32	DN40	DN50	Pressure loss	DN10	DN15	DN20	DN25	DN32	DN40	DN50
2,4	2,9	6,9	8,3	17,8	19,3	29,4	0,001 bar	5,3	6,5	11,4	16,3	35,6	40	61,3
75	93	218	261	562	610	930	1 bar	166	207	360	515	1127	1265	1940

l/min



DN10	DN15	DN20	DN25	DN32	DN40	DN50	Pressure loss	DN10	DN15	DN20	DN25	DN32	DN40	DN50
2	2,5	6,2	7,6	15	16	25,5	0,001 bar	2,3	2,9	6,6	7,6	15,5	17,6	29,1
64	80	195	240	473	507	805	1 bar	72	90	210	240	490	555	920

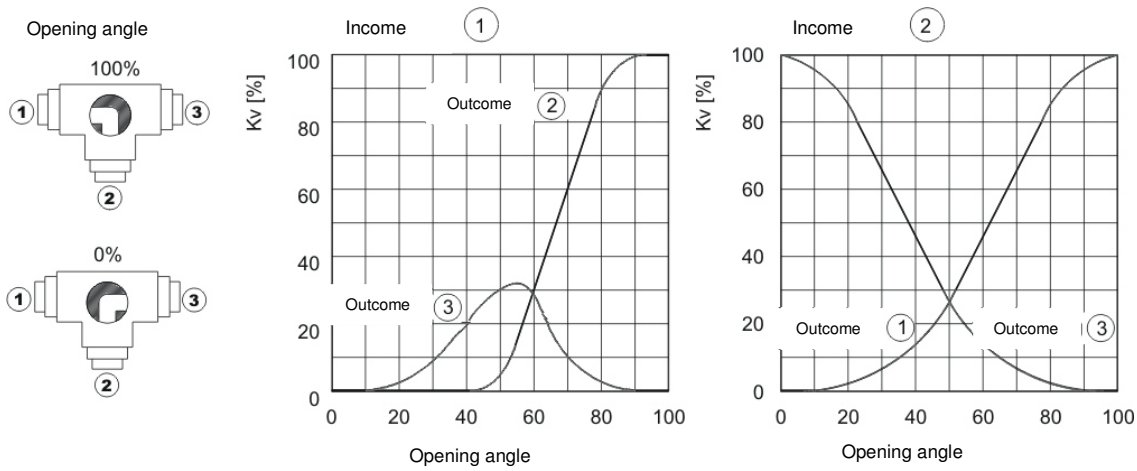
l/min

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# 3 way ball valve S4 with pneumatic actuator

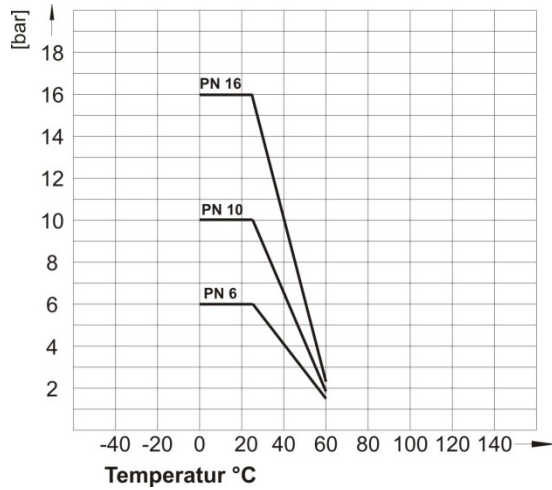


## Flow characteristics

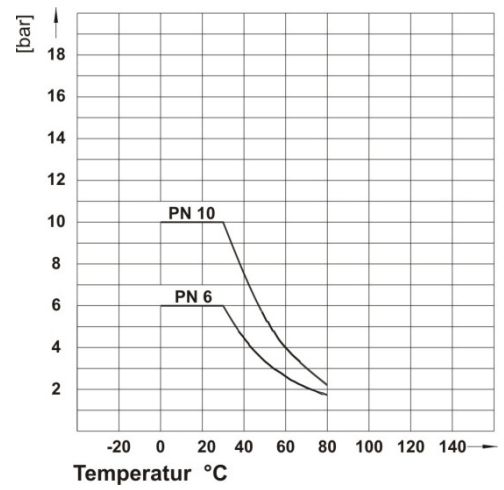


## Pressure – Temperature

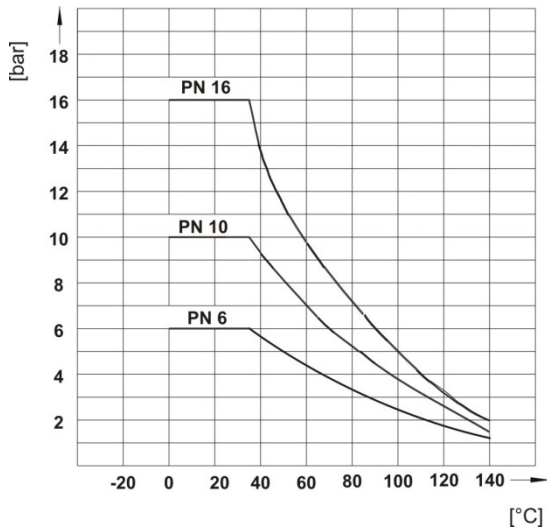
### PVC-U



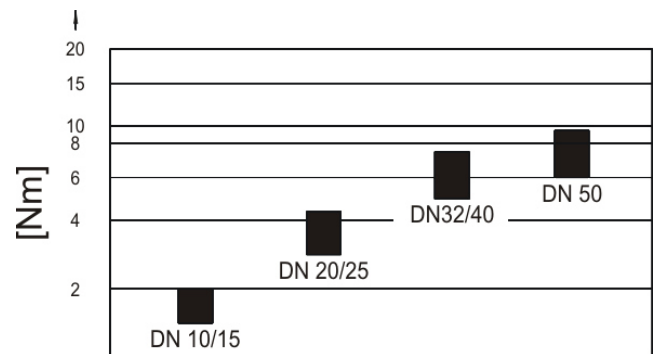
### PP



### PVDF



### Torque



## 3 way ball valve S4 with pneumatic actuator

### Technical features pneumatic actuator

#### Description actuator

piston actuation with two opposed pistons, power transmission with tooth rack, seal elastic.

#### Material actuator

- Body: aluminium anodised
- End caps: aluminium epoxy powder
- Screws and nuts: stainless steel

**Ambient temperature:** -20°C to +80°C

#### Control fluid

Filtered air according to PNEUROP/ISO class 4

#### Mounting

In every possible direction

#### Control function / control pressure

DA: double acting / max. 10 bar

SR: spring return / max. 8 bar

#### Rotation angle

90°; adjustment in both directions -10° bis +10°

#### Installation

- actuator – valve: ISO 5211
- actuator – solenoid valve: NAMUR (VDI/VDE 3845)
- actuator – limit switch box: NAMUR (VDI/VDE 3845)

#### AIR CONSUMPTION (FULL CYCLE)

##### **DA DOUBLE ACTING**

actuator	UT05 DA	UT15 DA
N. Lt.	0,22	0,41

#### AIR CONSUMPTION (FULL CYCLE)

##### **SR SPRING RETURN**

actuator	UT05 SR	UT15 SR	UT17 SR
N. Lt.	0,13	0,18	0,25



## 3 way ball valve S4 with pneumatic actuator

### Accessoires:

#### Limit switch box

##### General:

- Limit switch box with two mechanical switches croucet
- Enclosure IP65
- Cable gland M20\*1,5

##### Material:

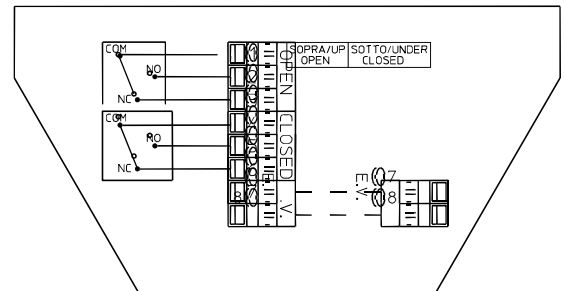
- Body: polycarbonat black
- Cover: polycarbonat clear
- Mounting bracket + screw: stainless steel
- Seals: EPDM

##### Voltage:

- 1-250 V

##### Current:

- 16 A (250V AC)
- 2,5 A (24 DC)



### SOLENOID VALVE NAMUR

##### General:

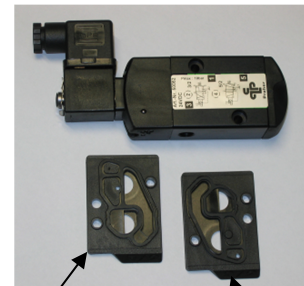
- Solenoid valve NAMUR with combined 5/2- and 3/2- ways function + standard coil
- Easy change over from 5/2- to 3/2 ways operating by innovative sealing-plate to be turn around
- Manual override as standard

##### Material:

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

##### Voltage:

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



5/2 FUNKTION

3/2 FUNKTION

