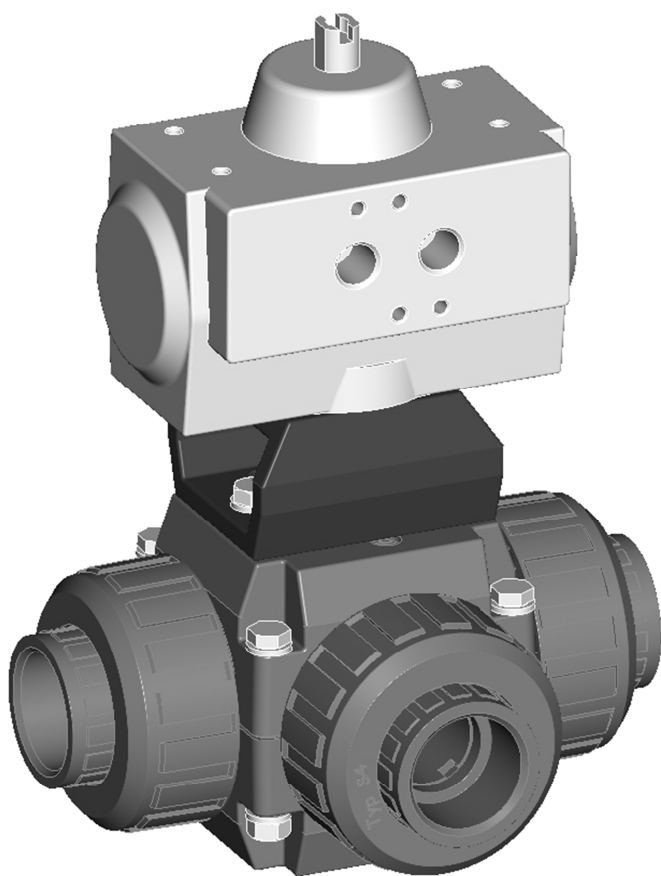


## 3 way ball valve S4 with pneumatic actuator



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
- 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

Архангельск (8182)63-90-72  
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Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
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Владивосток (423)249-28-31  
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Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
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Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Киргизия (996)312-96-26-47

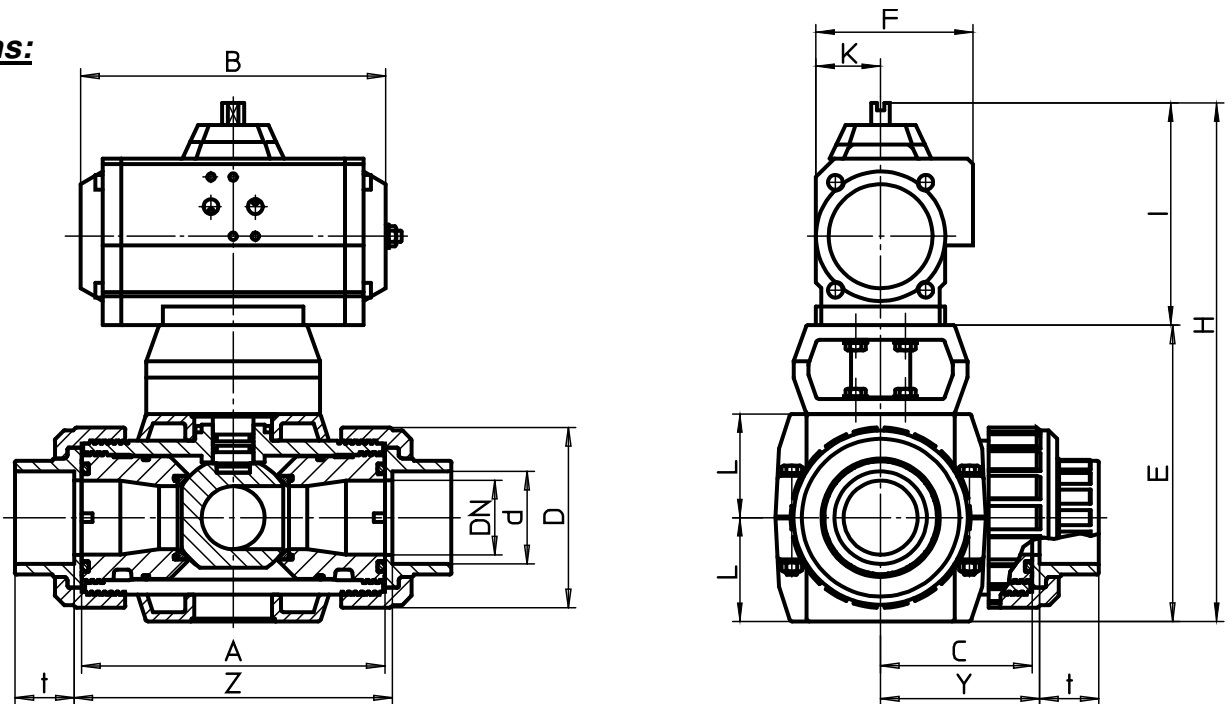
Магнитогорск (3519)55-03-13  
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Мурманск (8152)59-64-93  
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Смоленск (4812)29-41-54  
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Хабаровск (4212)92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

## 3 way ball valve S4 with pneumatic actuator

### Dimensions:



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

| DN                                 | 10             | 15    | 20   | 25  | 32             | 40     | 50             |
|------------------------------------|----------------|-------|------|-----|----------------|--------|----------------|
| d                                  | 16             | 20    | 25   | 32  | 40             | 50     | 63             |
| <b>G<sub>TSO</sub><sup>1</sup></b> | 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<sub>SSO</sub><sup>2</sup></b> | 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<sub>SSO</sub><sup>2</sup></b> | 106            | 105,5 | 126  | 126 | 169            | 170,5  | 192,5          |
| <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   | 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>                    | <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   | 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             |

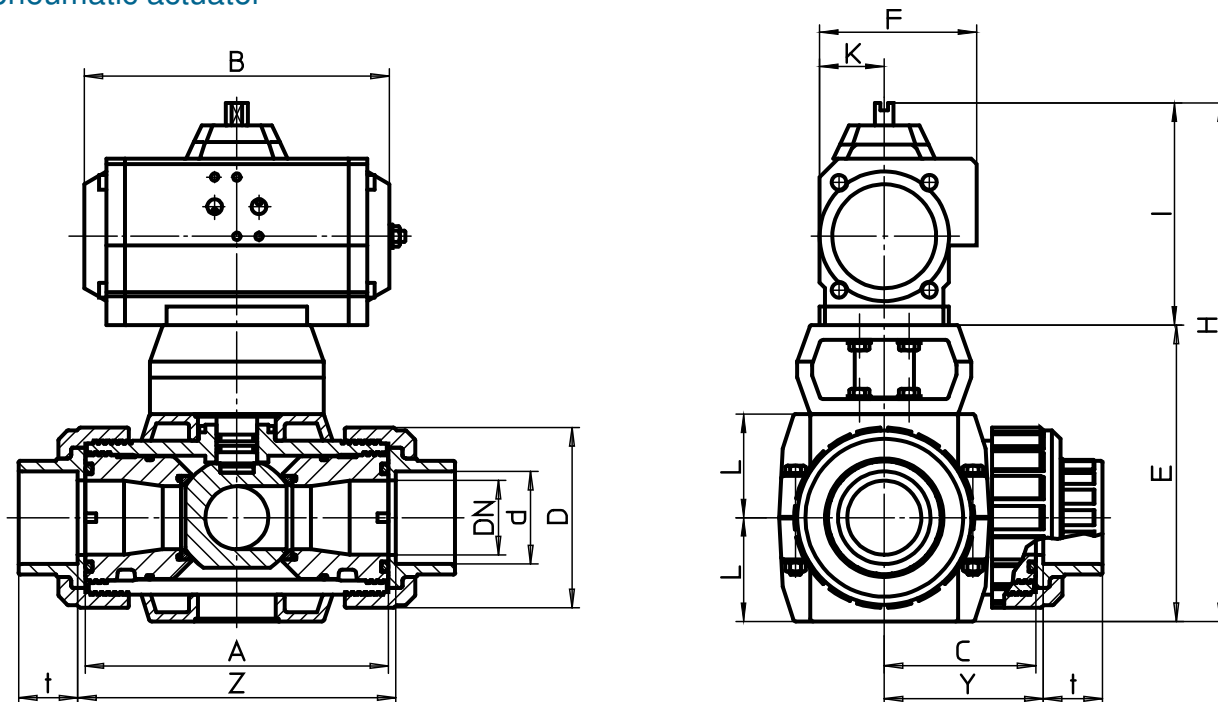
further dimensions see data sheet 3W KH S4 hand operated

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      |
|--------------------------------------|---------|------|------|------|---------|--------|---------|
| d                                    | 16      | 20   | 25   | 32   | 40      | 50     | 63      |
| <b>G</b> <sup>1</sup> <sub>TSO</sub> | 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> <sup>2</sup> <sub>FSO</sub> | 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> <sup>2</sup> <sub>FSO</sub> | 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      |

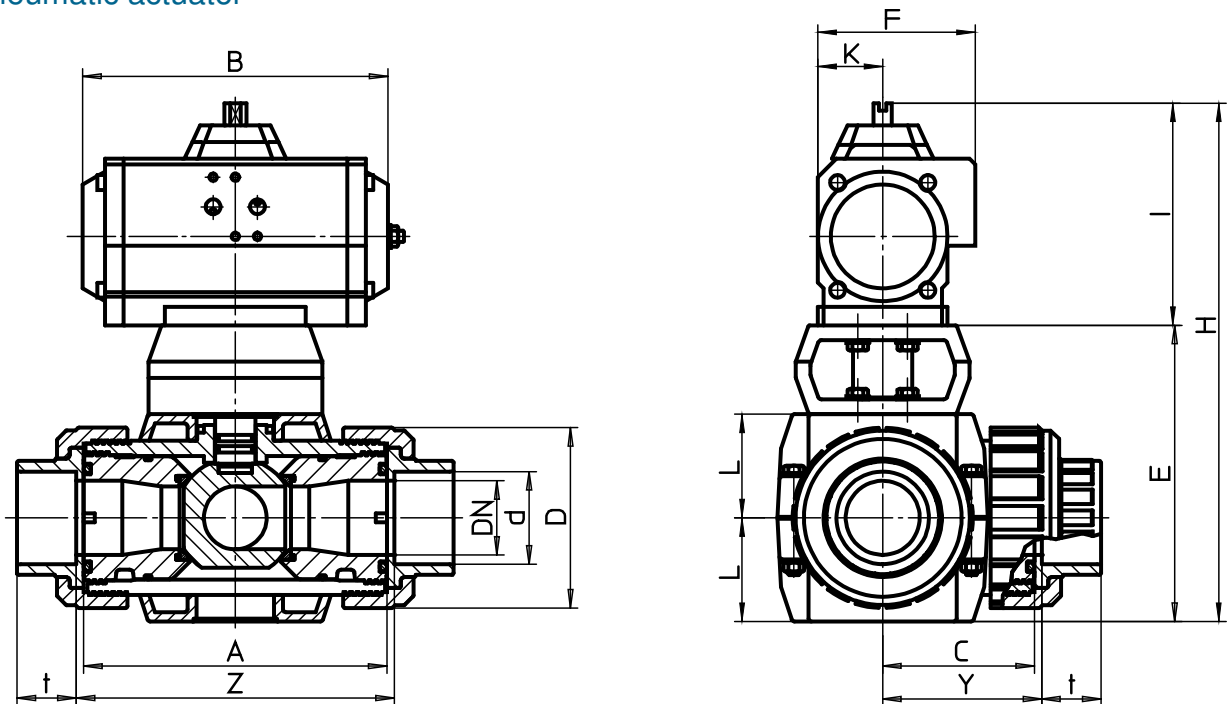
further dimensions see data sheet 3W KH S4 hand operated

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             |
|--------------------------------------|----------------|-------|-------|------|----------------|--------|----------------|
| d                                    | 16             | 20    | 25    | 32   | 40             | 50     | 63             |
| <b>G</b> <sup>1</sup> <sub>TSO</sub> | 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> <sup>2</sup> <sub>FSO</sub> | 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> <sup>2</sup> <sub>FSO</sub> | 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

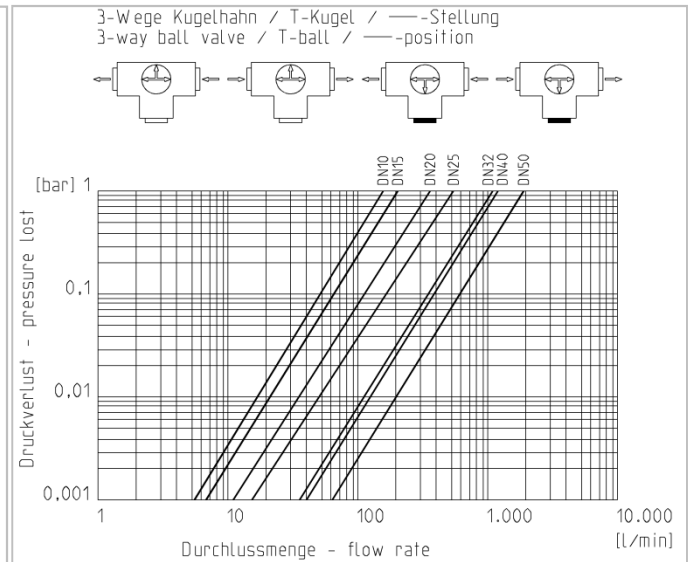
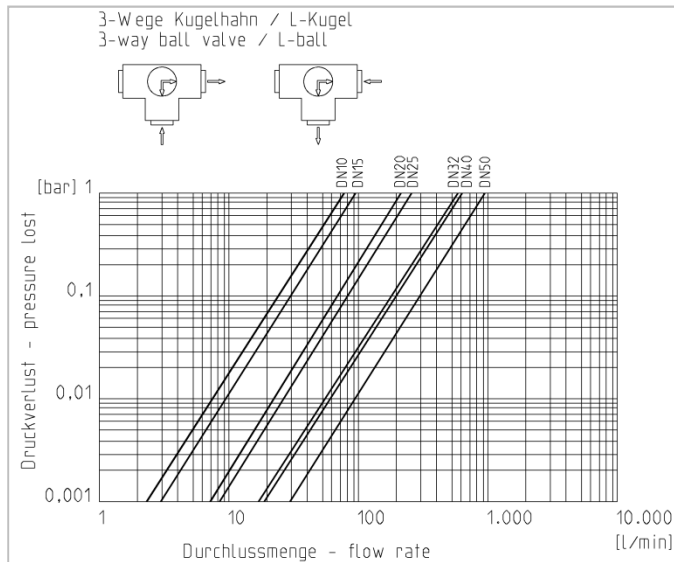
01. Actuator
02. Hexagon screw
03. Toothed washer
04. Clutch
05. Valve bracket
06. Ball valve
07. Washer
08. Hexagon nut
09. Hexagon nut
10. Toothed washer
11. Hexagon screw
12. Hexagon socket screw
13. Toothed washer
14. Console
15. Reduction



## 3 way ball valve S4 with pneumatic actuator

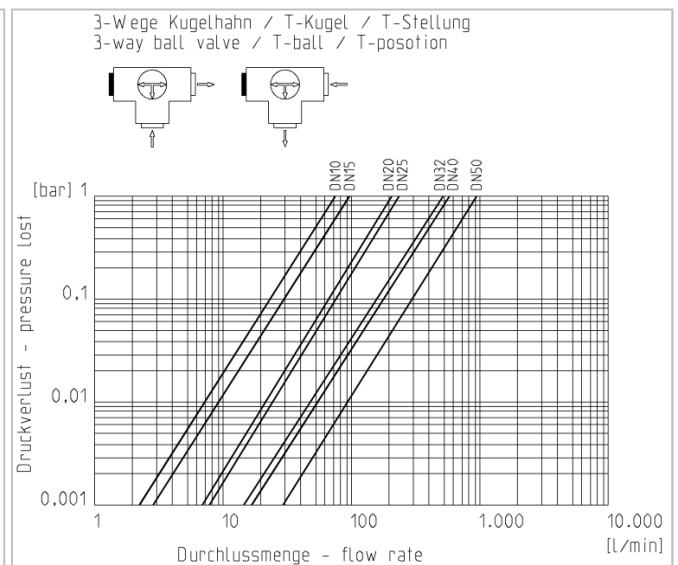
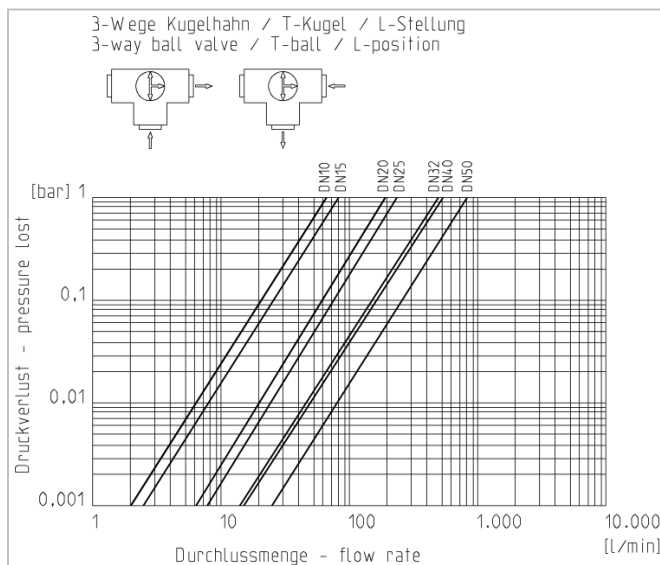
### Diagrams:

#### 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

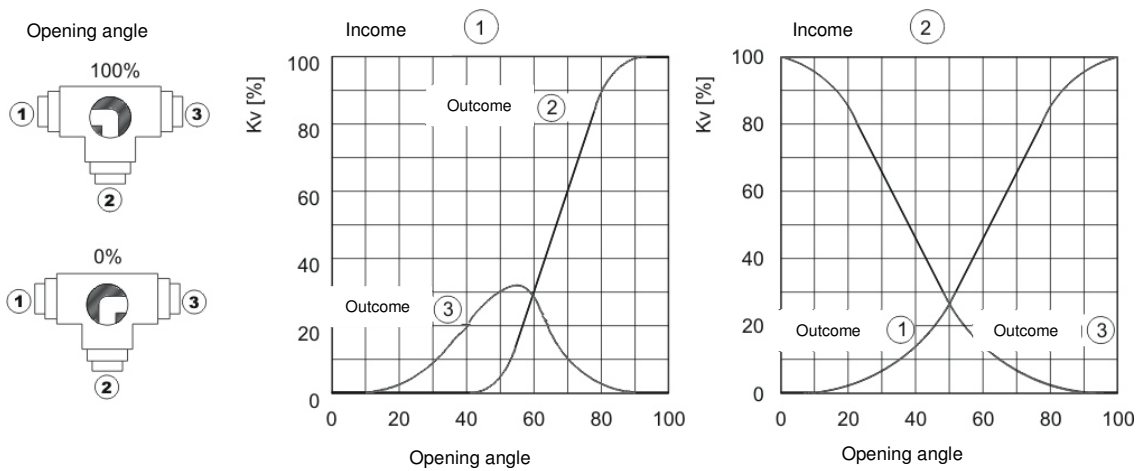


| DN10 | DN15 | DN20 | DN25 | DN32 | DN40 | DN50 | Pressure loss | DN10 | DN15 | DN20 | DN25 | DN32 | DN40 | DN50 |
|------|------|------|------|------|------|------|---------------|------|------|------|------|------|------|------|
| 2    | 2,5  | 6,2  | 7,6  | 15   | 16   | 25,5 | 0,001 bar     | 2,3  | 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

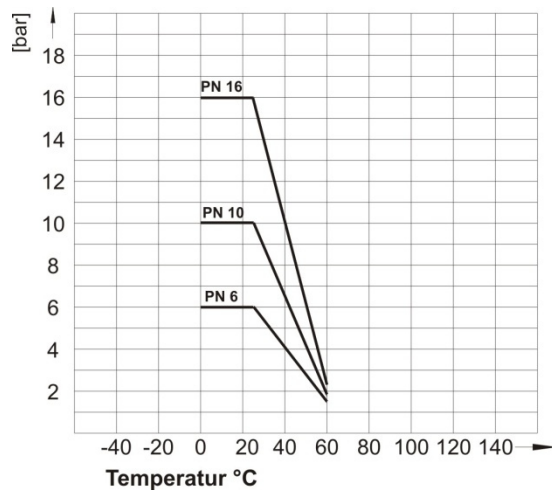
## 3 way ball valve S4 with pneumatic actuator

### Flow characteristics

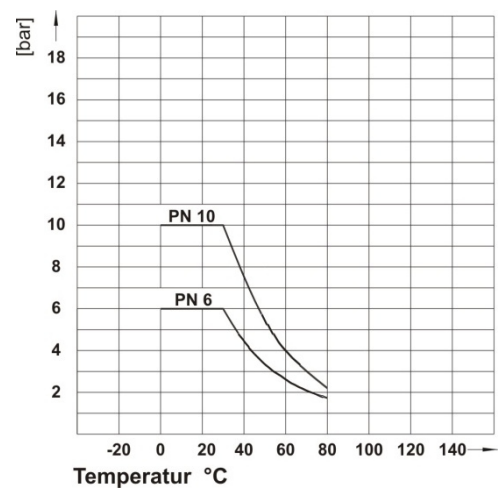


### Pressure – Temperature

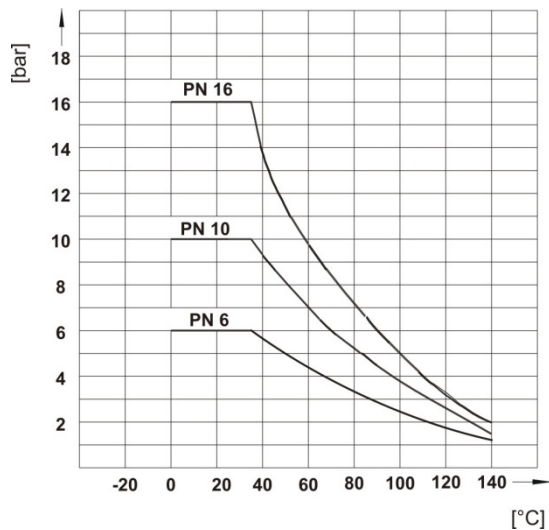
#### PVC-U



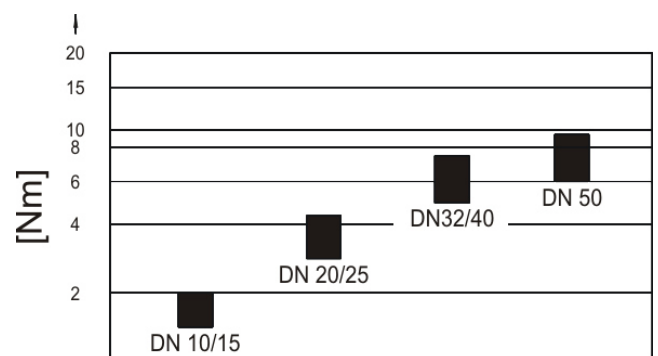
#### PP



#### 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:

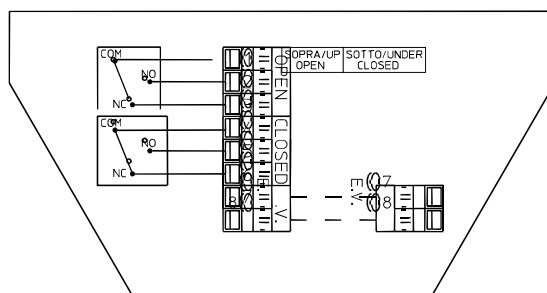
- Body: polycarbonat black
- Cover: polycarbonat clear
- Mounting bracket + screw: stainless steel
- Seals: EPDM

##### Voltage:

- 1-250 V

##### Current:

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



### SOLENOID VALVE NAMUR

##### General:

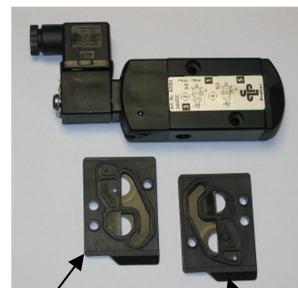
- Solenoid valve NAMUR with combined 5/2- and 3/2- ways function + standard coil
- Easy change over from 5/2- to 3/2 ways operating by innovative sealing-plate to be turn around
- Manual override as standard

##### Material:

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

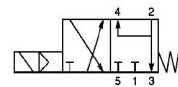
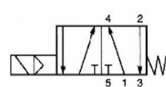
##### Voltage:

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



5/2 FUNKTION

3/2 FUNKTION



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Астана (7172)727-132  
Астрахань (8512)99-46-04  
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Ставрополь (8652)20-65-13

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