

## 3 way ball valve S4 hand operated



Symbolfoto

### General:

- Material: PVC-U / PP / PVDF
- Sealing material: EPDM / FPM
- Ball seating joint: PTFE
- Ball: T- oder L-Bohrung
- Dimensions:
  - DN10 (DN15 / d16 / d3/8")
  - DN15 d20 d1/2"
  - DN20 (DN25 / d25 / d3/4")
  - DN25 d32 d1"
  - DN32 (DN40 / d40 / d1 1/4")
  - DN40 d50 d1 1/2"
  - DN50 d63 d2"

### Connector types:

- Solvent socket PVC DIN / ASTM / JIS
- Solvent spigot PVC DIN
- Threaded socket PVC / PP BSP / NPT
- Fusion socket PP / PVDF DIN
- Fusion spigot PP / PVDF / PE DIN
- Backing flange PVC DIN

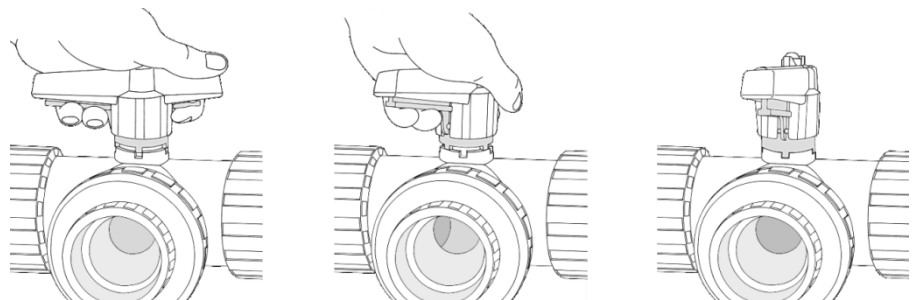
### Operating pressure:

- PVC / PVDF PN16
- PP PN10

### Technical features:

- Safety locking handle system
- Radial installation and removal
- Double sided blocked ball
- Machined ball
- Full section area of flow (nominal bore)
- Floating ball

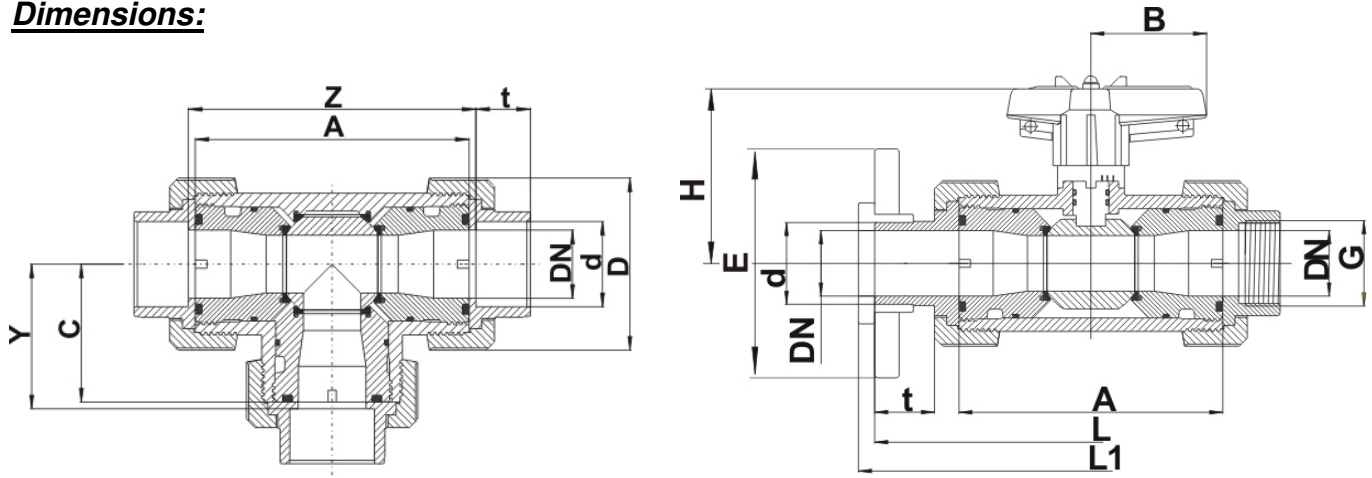
### Safety locking handle system



This document does not constitute a guarantee, it is for initial information purpose 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!

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**Dimensions:**



**PVC-U**

**Connector types**

PVC solvent socket / solvent spigot / threaded socket / backing flange  
PE fusion socket

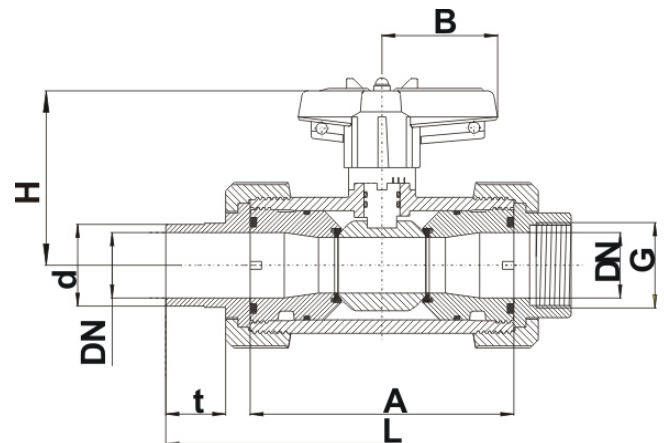
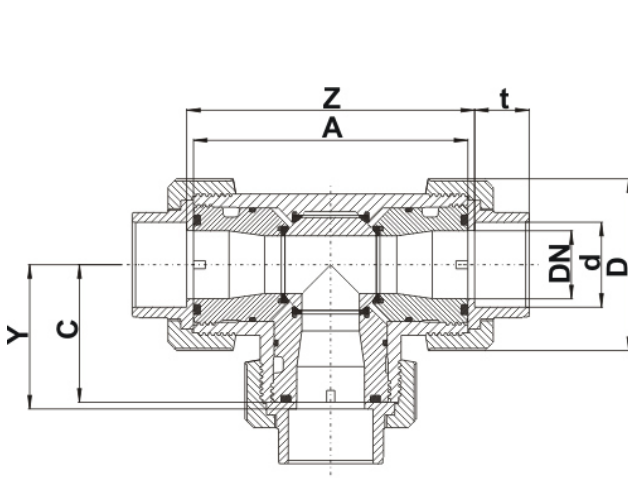
DN	10	15	20	25	32	40	50
d	16	20	25	32	40	50	63
<b>G</b> TSO <sup>1</sup>	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
<b>A</b>	100	100	120	120	162	162	181
<b>B</b>	40	40	51,5	51,5	73	73	85
<b>C</b>	50	50	60	60	81	81	90,5
<b>D</b>	53	53	70	70	101	101	124,5
<b>H</b>	72	72	81,5	81,5	107,5	107,5	116,5
<b>t</b> SSO <sup>2</sup> / SSP <sup>3</sup>	16,5	16,5	20	22,5	27,5	31,5	38,5
<b>t</b> FSP PE <sup>4</sup>	13	14,5	-	18,5	-	29	31
<b>E</b> BF <sup>5</sup>	90	95	-	115	-	150	165
<b>L</b> SSO <sup>2</sup> / TSO <sup>1</sup>	138	138	166	172	224	234	269
<b>L</b> SSP <sup>3</sup>	153	163	-	200	-	261	295
<b>L</b> PE FSP <sup>4</sup>	150	160	-	198	-	246	269
<b>L1</b> BF <sup>5</sup>	159	169	-	206	-	267	301
<b>Y</b>	53	53	63	63	84,5	85,5	96
<b>Z</b>	106	106	126	126	169	171	192
<b>PN</b>	16	16	16	16	16	16	16
<b>PN</b> BF <sup>5</sup> PE <sup>4</sup>	10	10	10	10	10	10	10

dimensions in mm

<sup>1</sup> TSO = threaded socket  
<sup>2</sup> SSO = Klebemuffe  
<sup>3</sup> SSP = Klebestutzen  
<sup>4</sup> FSP = fusion socket PE

<sup>5</sup> BF = backing flange  
- = currently not realised

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**PP**

**Connector types**

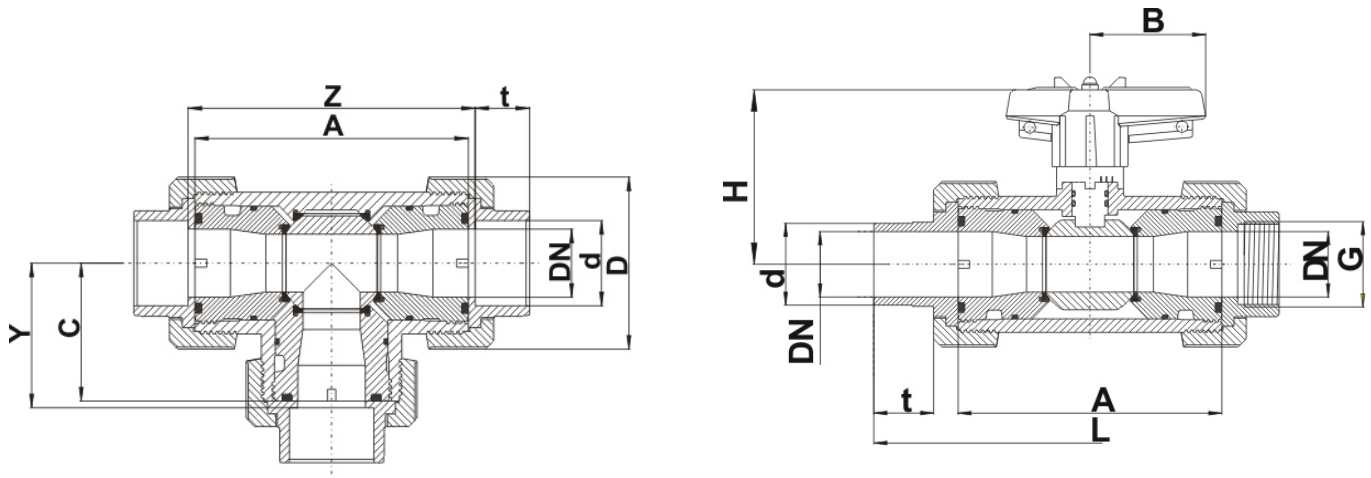
PP fusion socket / fusion spigot / threaded socket

DN	10	15	20	25	32	40	50
d	16	20	25	32	40	50	63
G <sup>GM1</sup>	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	98	98	118	118	159	159	177
B	40	40	51,5	51,5	73	73	85
C	49	49	59	59	79,5	79,5	88,5
D	53	53	71	71	100	100	120,5
H	72	72	81,5	81,5	107,5	107,5	116,5
t <sub>min</sub> <sup>FSO<sup>2</sup>/FSP<sup>3</sup></sup>	13	14,5	16,5	18	20,5	23,5	27,5
L <sup>FSO<sup>2</sup></sup>	136	136	163	168	220	229	263
L <sup>FSP<sup>3</sup></sup>	150	160	190	196	247	256	289
L <sup>TSO<sup>1</sup></sup>	136	136	163	168	220	229	263
Y	55	53,5	65,5	66	89,5	91	104
Z	110	107	131	132	179	182	208
PN	10	10	10	10	10	10	10

dimensions in mm

- <sup>1</sup> TSO = threaded socket
- <sup>2</sup> FSO = fusion socket
- <sup>3</sup> FSP = fusion spigot
- = currently not realised

### 3 way ball valve S4 hand operated



#### PVDF

##### Connector types

PVDF fusion socket / fusion spigot / threaded socket

DN	10	15	20	25	32	40	50
d	16	20	25	32	40	50	63
G <sup>1</sup> TSO	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	98	98	117	117	158	158	176
B	40	40	51,5	51,5	73	73	85
C	49	49	59	59	79	79	88
D	52,5	52,5	70	70	98,5	98,5	118
H	72	72	81,5	81,5	107,5	107,5	116,5
t <sup>2</sup> / FSP <sup>3</sup>	13	14,5	16,5	18	20,5	23,5	27,5
L <sup>2</sup> FSO	136	136	162	167	219	228	262
L <sup>3</sup> FSP	150	160	190	196	247	256	289
L <sup>1</sup> TSO	136	136	-	168	-	228	262
Y	55	53,5	65,5	66	89	90,5	103,5
Z	110	107	130	131	178	181	207
PN	16	16	16	16	16	16	16

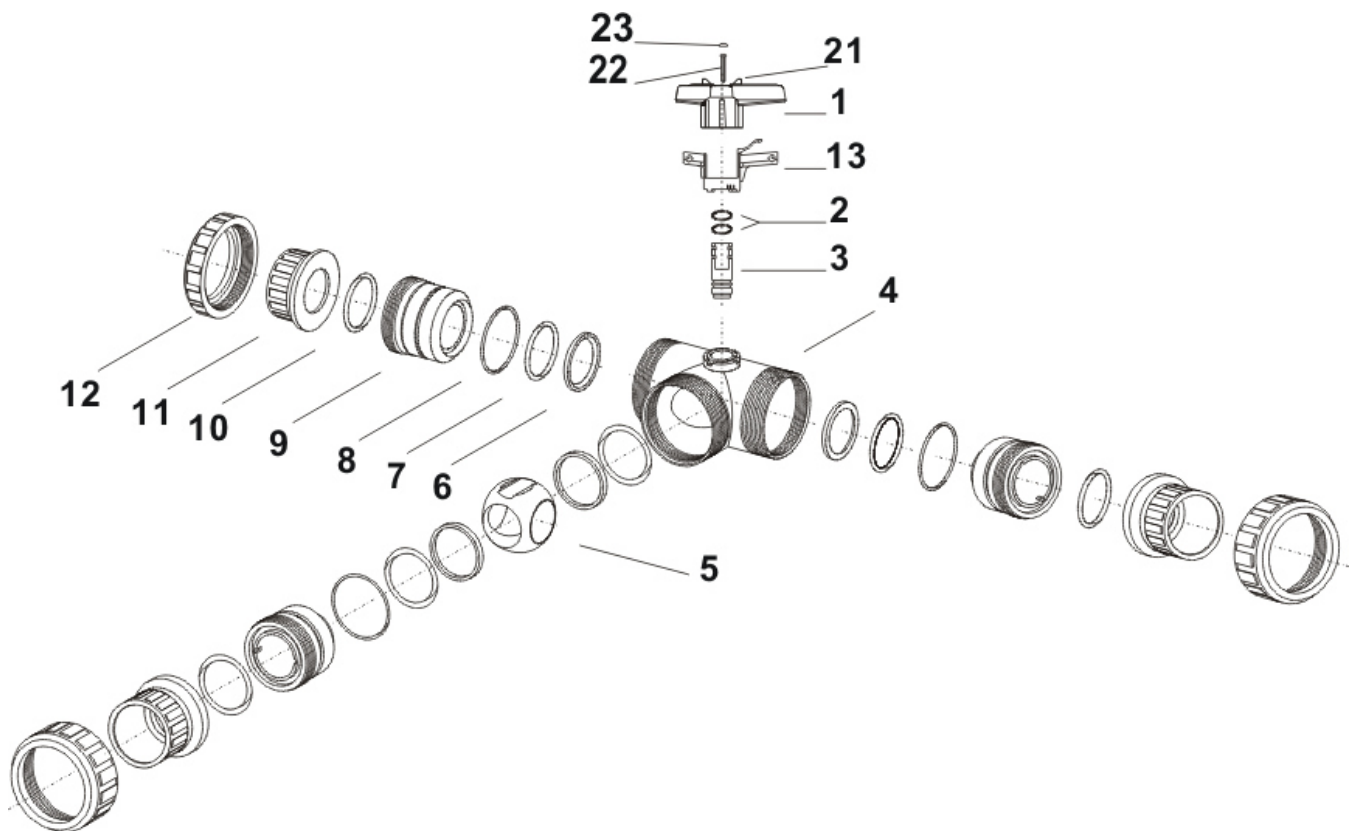
dimensions in mm

- <sup>1</sup> TSO = threaded socket
- <sup>2</sup> FSO = fusion socket
- <sup>3</sup> FSP = fusion spigot
- = currently not realised

## 3 way ball valve S4 hand operated

### **Exploded drawing:**

- |                                   |  |
|-----------------------------------|--|
| 01. Handle                        | 12. Union nut                            |
| 02. O-Ring                        | 13. Spring loaded locking sleeve         |
| 03. Shaft                         | 21. Stub tenon for opening thrust collar |
| 04. Body                          | 22. Screw                                |
| 05. Ball „L“ or „T“               | 23. PLS-labeling insert                  |
| 06. Ball seating joint            |  |
| 07. O-Ring                        |  |
| 08. O-Ring                        |  |
| 09. Thrust collar                 |  |
| 10. O-Ring                        |  |
| 11. Connector types               |  |
| solvent socket / -spigot          |  |
| fusion socket /-spigot            |  |
| threaded socket                   |  |
| flange adapter and backing flange |  |

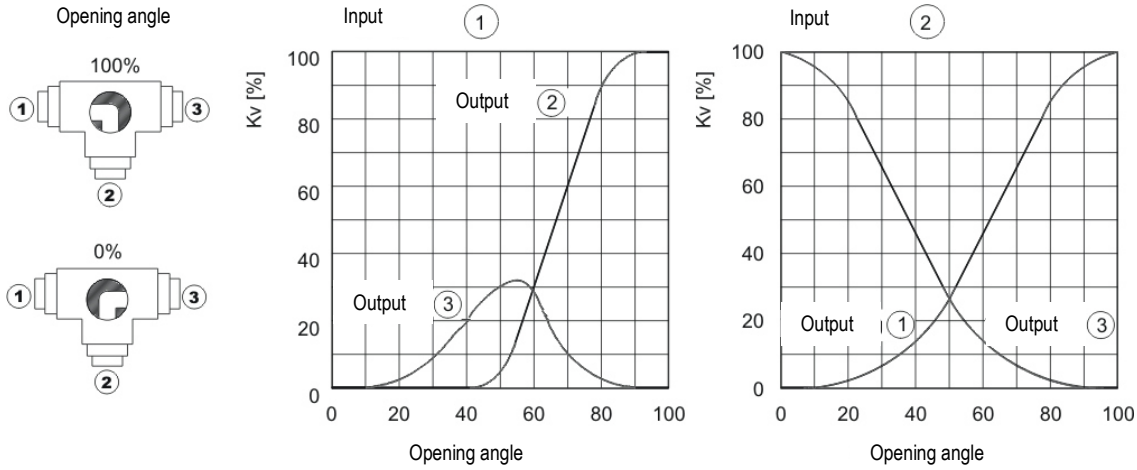


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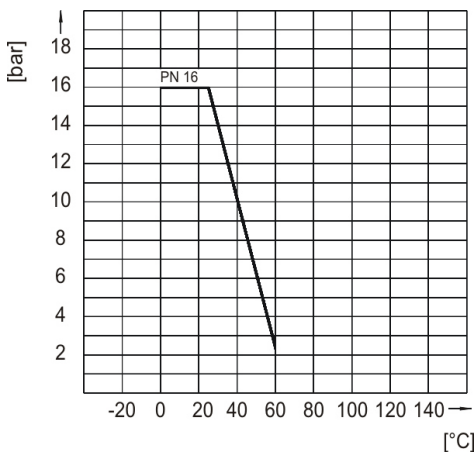


## Diagrams:

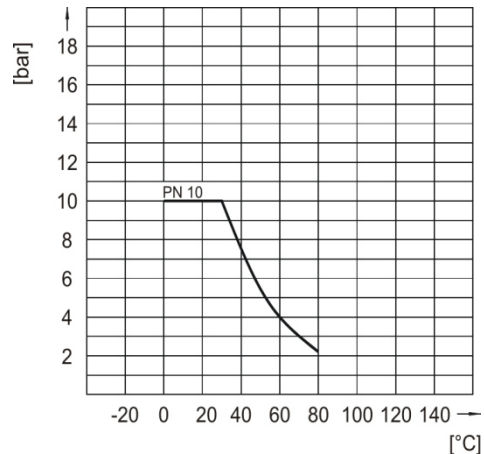
### Flow characteristics



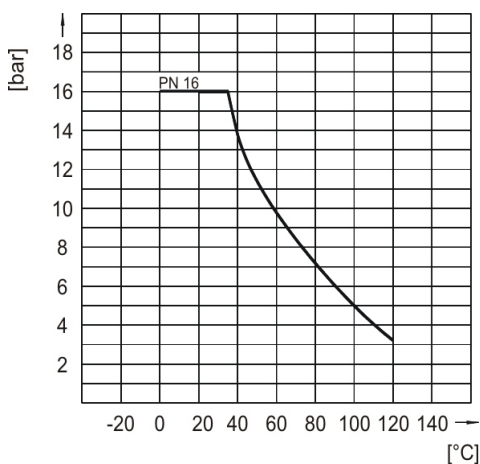
### Pressure – temperatur – PVC-U



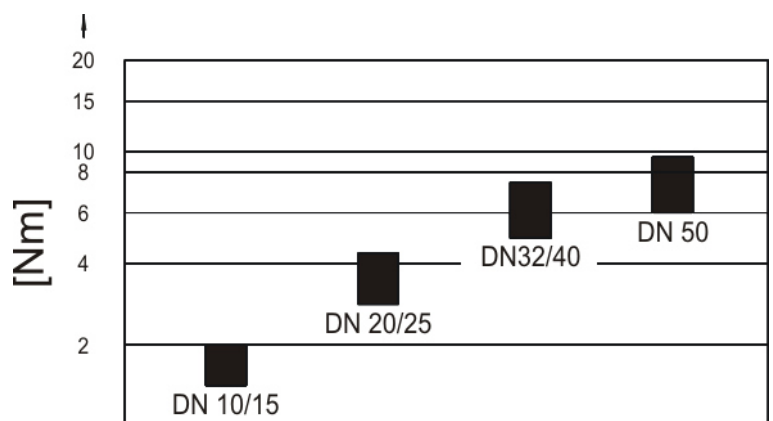
### Pressure – temperatur – PP



### Pressure – temperatur – PVDF



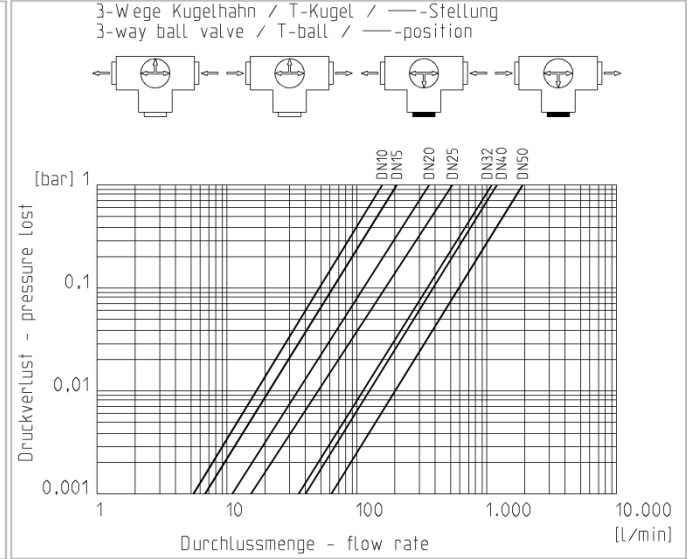
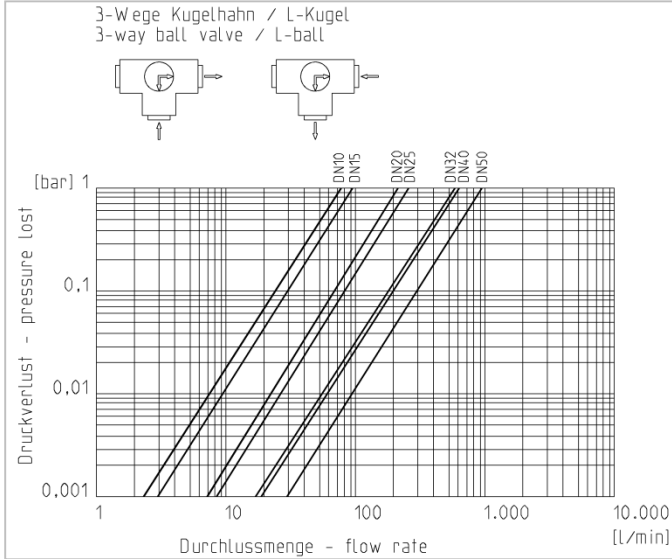
### Torque



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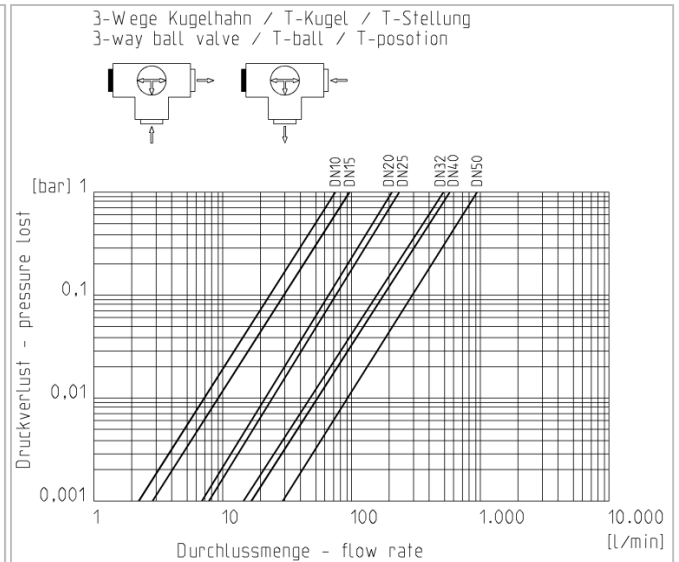
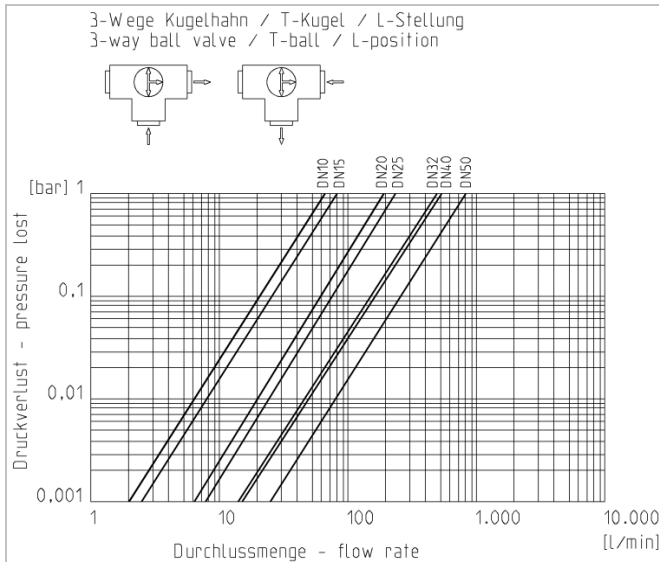


## Pressure loss diagramm



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	<b>0,001 bar</b>	5,3	6,5	11,4	16,3	35,6	40	61,3
75	93	218	261	562	610	930	<b>1 bar</b>	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	<b>0,001 bar</b>	2,3	2,9	6,6	7,6	15,5	17,6	29,1
64	80	195	240	473	507	805	<b>1 bar</b>	72	90	210	240	490	555	920

l/min