




Shut-off and control technology



A line of ball valves and ideas



|  |           |
|--|-----------|
|  <b>Multi-way ball valves</b> | <b>71</b> |
| • <b>with floating ball</b>  | <b>74</b> |
| • with threaded connector  | 74        |
| • as combination (see 2-way ball valves)   | 36        |
| • with ISO-flange connection (SAE)   | 84        |
| • for manifold mounting  | 86        |
| • for manifold insertion as cartridge type   | 88        |
| • <b>with trunnion ball</b>  | <b>90</b> |
| • with threaded connector  | 90        |
| • as combination   | 98        |
| • for manifold mounting  | 100       |





with floating ball



with trunnion ball

# Multi-way ball valves

## Standard- and special porting patterns



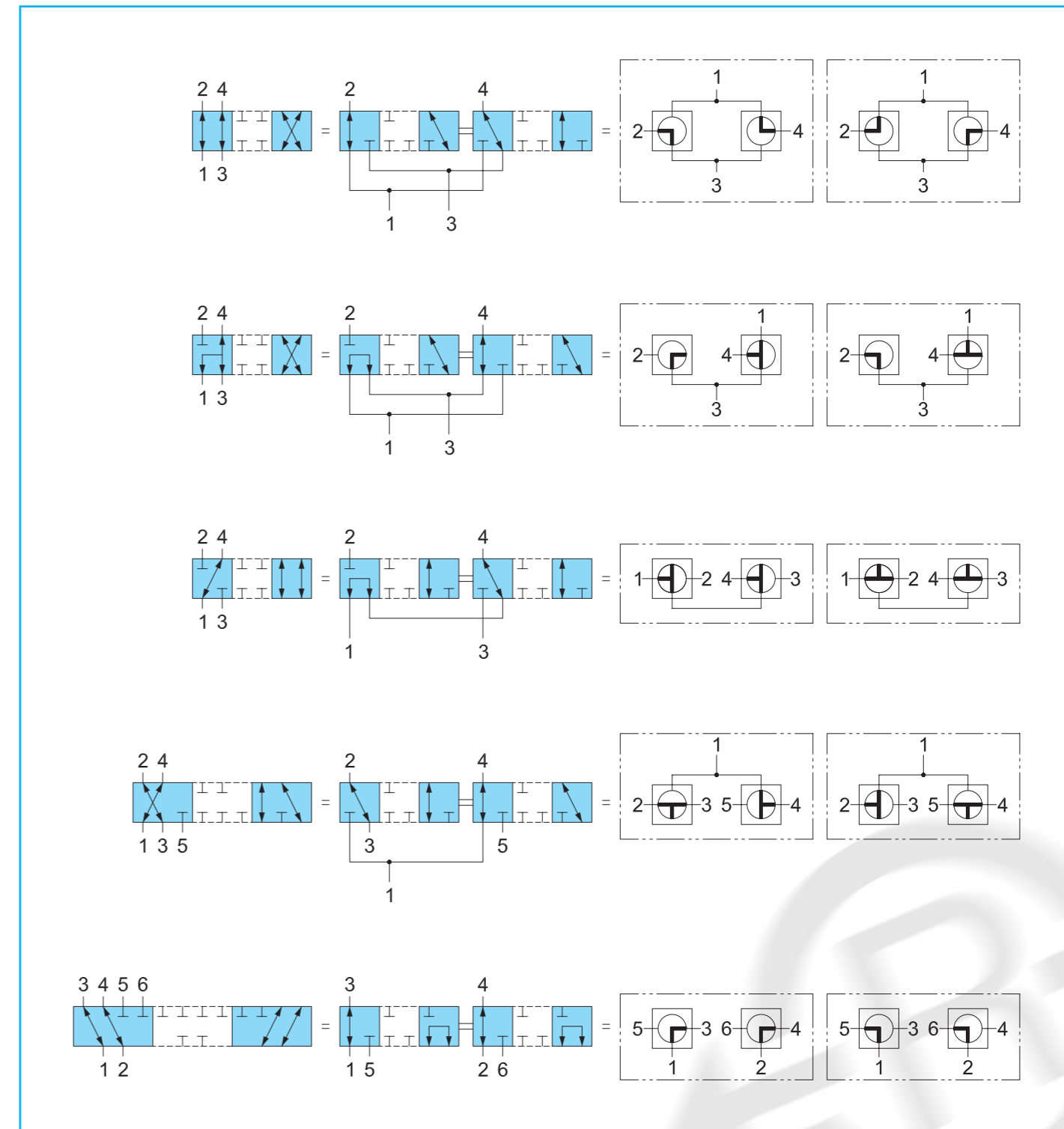
| Ref-No. | Ball valve style  | Cycling | Porting symbols | Descriptions   |
|---------|---|---------|-----------------|--|
| 01      | 3-way compact ball valve with L-bore                    | 90°     |                 | Floating ball, all ports connected in the cross-over position, pressure should not be applied from the closed port                                   |
| 03      | 3-way compact ball valve with T-bore                    | 90°     |                 | Floating ball, all ports connected in the cross-over position, pressure should not be applied from the closed port                                   |
| 08      | 3-way ball valve with L-bore                            | 90°     |                 | Trunnion ball, all ports closed in the cross-over position, full bore  |
| 09      | 3-way ball valve with T-bore                            | 90°     |                 | Trunnion ball, all ports closed in the cross-over position, full bore  |
| 10      | 3-way ball valve with T-bore                            | 2 x 90° |                 | Trunnion ball, all ports closed in the cross-over position, full bore, detent at center position is recommended                                      |
| 11      | 4-way ball valve with L-bore                            | 90°     |                 | Trunnion ball, all ports closed in the cross-over position, full bore  |
| 12      | 4-way ball valve with L-bore                            | 2 x 90° |                 | Trunnion ball, all ports closed in the cross-over position, full-bore, detent at center position is recommended                                      |
| 13      | 4-way ball valve with double L-bore                     | 90°     |                 | Trunnion ball, temporary connection of all ports in the cross-over position but with full shut-off at center point, reduced bore                     |
| 14      | 4-way ball valve with double L-bore and additional bore | 2 x 45° |                 | Trunnion ball, all ports connected in the cross-over position with center shut-off position, reduced bore, detent for center position is recommended |
| 15      | 4-way ball valve with double L-bore and additional bore | 2 x 45° |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore, detent for center position is recommended                               |
| 16      | 4-way ball valve with Y-bore                            | 2 x 45° |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore, detent for center position is recommended                               |
| 17      | 5-way ball valve with double L-bore perpendicular       | 3 x 90° |                 | Trunnion ball, all ports closed, full-bore passage, detents for switching positions are recommended  |
| 18      | 4-way ball valve with T- and L-bore                     | 45°     |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore  |
| 19      | 4-way ball valve with double L-bore and additional bore | 45°     |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore  |
| 20      | 3-way ball valve with L-bore and additional bore        | 90°     |                 | Trunnion ball, all ports connected in the cross-over position, full bore   |
| 21      | 3-way ball valve with T-bore and additional bore        | 2 x 45° |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore  |
| 22      | 3-way ball valve with L-bore and additional bore        | 45°     |                 | Trunnion ball, all ports connected in the cross-over position, reduced bore  |

Other special porting patterns on request

# Multi-way ball valves

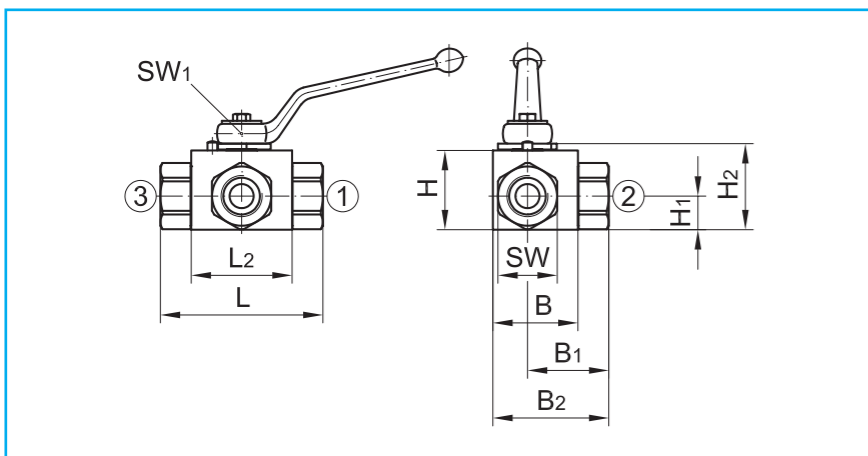
## Special porting patterns · examples for combinations

By combining simple patterns more complex functions can be achieved.

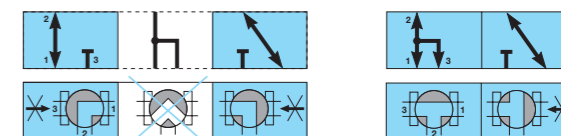


# Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 4 - DN 40/25



Handle included in delivery. For handle refer to "Attachments, accessories"  
 ✦ Application of pressure only as indicated in chapter "Technical information"  
 Please check pressure rating of the pipe fittings!  
 Actuators and custom orders on request  
 All dimensions subject to change without notice  
 Also available with most other connections  
 All ball valves available with mounting plate



Dimensions in mm

Weight in kg

Pressure in bar

|             | L                         | T                         |
|-------------|---------------------------|---------------------------|
| Bore:       | L                         | T                         |
| Cycling:    | 90°                       | 90°                       |
| Body:       | steel, black oxide        | steel, black oxide        |
| Ball:       | steel, hard chrome plated | steel, hard chrome plated |
| Stem:       | steel, zinc plated        | steel, zinc plated        |
| Ball seals: | POM                       | POM                       |
| Stem seals: | NBR                       | NBR                       |

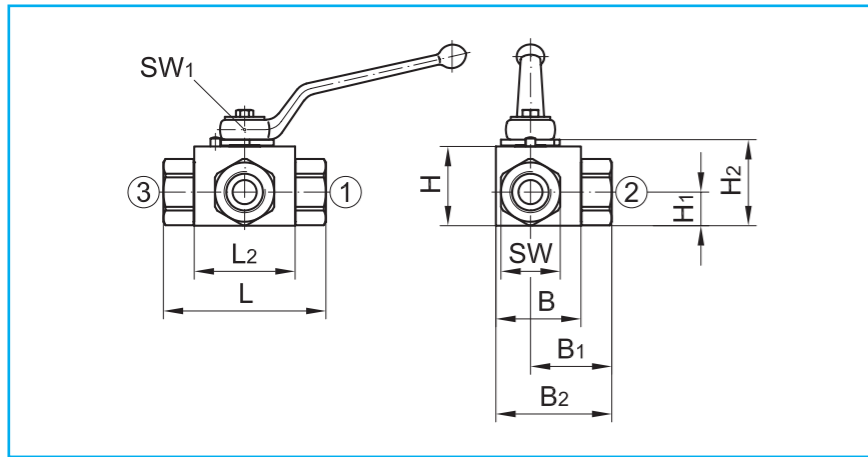
| Connection   | DN                                    | Thread<br>D        | OD           | L   | L <sub>1</sub> | L <sub>2</sub> | B  | B <sub>1</sub> | B <sub>2</sub> | H    | H <sub>1</sub> | H <sub>2</sub> | SW   | SW <sub>1</sub> | Handle<br>Code | Weight |
|--|---------------------------------------|--------------------|--------------|-----|----------------|----------------|----|----------------|----------------|------|----------------|----------------|------|-----------------|----------------|--------|
| For cut (clamp)<br>ring tube<br>fittings<br>DIN 2353<br>light series<br>ISO 8434-1 | 4                                     | M12 x 1,5          | 6            | 67  | 10             | 36             | 30 | 33,5           | 45,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,32   |
|  | 6                                     | M14 x 1,5          | 8            | 67  | 10             | 36             | 30 | 33,5           | 45,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,32   |
|  | 8                                     | M16 x 1,5          | 10           | 75  | 11             | 45             | 40 | 37,5           | 55,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,55   |
|  | 10                                    | M18 x 1,5          | 12           | 75  | 11             | 45             | 40 | 37,5           | 55,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,55   |
|  | 12                                    | M22 x 1,5          | 15           | 83  | 12             | 51             | 45 | 41,5           | 61,0           | 45   | 22,0           | 48,5           | 30   | 10              | 14             | 0,89   |
|  | 16                                    | M26 x 1,5          | 18           | 82  | 12             | 50             | 50 | 41,0           | 66,0           | 50   | 25,0           | 53,5           | 36   | 10              | 14             | 1,05   |
|  | 20                                    | M30 x 2            | 22           | 99  | 14             | 60             | 55 | 51,0           | 74,5           | 60   | 29,0           | 64,0           | 41   | 14              | 15             | 1,61   |
|  | 25                                    | M36 x 2            | 28           | 108 | 14             | 70             | 65 | 54,0           | 84,0           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,27   |
|  | 32/25                                 | M45 x 2            | 35           | 116 | 16             | 70             | 65 | 58,0           | 88,0           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,48   |
|  | 40/25                                 | M52 x 2            | 42           | 121 | 16             | 70             | 65 | 60,5           | 90,5           | 65   | 31,0           | 69,0           | 55   | 14              | 15             | 2,60   |
| For cut (clamp)<br>ring tube<br>fittings<br>DIN 2353<br>heavy series<br>ISO 8434-1 | 4                                     | M16 x 1,5          | 8            | 73  | 12             | 36             | 30 | 36,5           | 48,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,35   |
|  | 6                                     | M18 x 1,5          | 10           | 73  | 12             | 36             | 30 | 36,5           | 48,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,35   |
|  | 8                                     | M20 x 1,5          | 12           | 77  | 12             | 46             | 40 | 38,5           | 56,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,57   |
|  | 10                                    | M22 x 1,5          | 14           | 81  | 14             | 45             | 40 | 40,5           | 58,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,57   |
|  | 12                                    | M24 x 1,5          | 16           | 87  | 14             | 51             | 45 | 43,5           | 63,0           | 45   | 22,0           | 48,5           | 30   | 10              | 14             | 0,91   |
|  | 16                                    | M30 x 2            | 20           | 90  | 16             | 50             | 50 | 45,0           | 70,0           | 50   | 25,0           | 53,5           | 36   | 10              | 14             | 1,12   |
|  | 20                                    | M36 x 2            | 25           | 107 | 18             | 60             | 55 | 55,0           | 78,5           | 60   | 29,0           | 64,0           | 41   | 14              | 15             | 1,72   |
|  | 25                                    | M42 x 2            | 30           | 120 | 20             | 70             | 65 | 60,0           | 90,0           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,44   |
|  | 32/25                                 | M52 x 2            | 38           | 134 | 22             | 70             | 65 | 67,0           | 97,0           | 65   | 31,0           | 69,0           | 55   | 14              | 15             | 2,95   |
|  | BSP-female thread<br>DIN EN ISO 228-1 | 4                  | G 1/8        | -   | 69             | 12             | 36 | 30             | 34,5           | 46,5 | 30             | 15,0           | 32,5 | 19              | 7              | 12     |
| 6  |                                       | G 1/4              | -            | 69  | 12             | 36             | 30 | 34,5           | 46,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,34   |
| 10   |                                       | G 3/8              | -            | 73  | 14             | 45             | 40 | 36,5           | 54,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,57   |
| 12   |                                       | G 1/2              | -            | 82  | 15             | 51             | 45 | 41,0           | 60,5           | 45   | 22,0           | 48,5           | 30   | 10              | 14             | 0,94   |
| 16   |                                       | G 5/8              | -            | 88  | 18             | 50             | 50 | 44,0           | 69,0           | 50   | 25,0           | 53,5           | 36   | 10              | 14             | 1,24   |
| 20   |                                       | G 3/4              | -            | 93  | 18             | 60             | 55 | 48,0           | 71,5           | 60   | 29,0           | 64,0           | 41   | 14              | 15             | 1,72   |
| 25   |                                       | G1                 | -            | 115 | 18             | 70             | 65 | 57,5           | 87,5           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,65   |
| 32/25  |                                       | G1 1/4             | -            | 134 | 20             | 70             | 65 | 67,0           | 97,0           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,71   |
| 40/25  |                                       | G1 1/2             | -            | 139 | 22             | 70             | 65 | 69,5           | 99,5           | 65   | 31,0           | 69,0           | 55   | 14              | 15             | 2,91   |
| NPT-female thread<br>ANSI/ASME<br>B1.20.1-1983                                     |                                       | 4                  | 1/8 - 27 NPT | -   | 69             | 6,9            | 36 | 30             | 34,5           | 46,5 | 30             | 15,0           | 32,5 | 19              | 7              | 12     |
|  | 6                                     | 1/4 - 18 NPT       | -            | 69  | 10,0           | 36             | 30 | 34,5           | 46,5           | 30   | 15,0           | 32,5           | 19   | 7               | 12             | 0,34   |
|  | 10                                    | 3/8 - 18 NPT       | -            | 73  | 10,3           | 45             | 40 | 36,5           | 54,0           | 35   | 14,5           | 38,5           | 24   | 8               | 13             | 0,57   |
|  | 12                                    | 1/2 - 14 NPT       | -            | 82  | 13,6           | 51             | 45 | 41,0           | 60,5           | 45   | 22,0           | 48,5           | 30   | 10              | 14             | 0,94   |
|  | 20                                    | 3/4 - 14 NPT       | -            | 93  | 14,1           | 60             | 55 | 48,0           | 71,5           | 60   | 29,0           | 64,0           | 41   | 14              | 15             | 1,75   |
|  | 25                                    | 1 - 11 1/2 NPT     | -            | 115 | 16,8           | 70             | 65 | 57,5           | 87,5           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,71   |
|  | 32/25                                 | 1 1/4 - 11 1/2 NPT | -            | 134 | 17,3           | 70             | 65 | 67,0           | 97,0           | 65   | 31,0           | 69,0           | 50   | 14              | 15             | 2,79   |
|  | 40/25                                 | 1 1/2 - 11 1/2 NPT | -            | 139 | 17,3           | 70             | 65 | 69,5           | 99,5           | 65   | 31,0           | 69,0           | 55   | 14              | 15             | 2,94   |

| DN    | PN  | Article-No. | PN  | Article-No. |
|-------|-----|-------------|-----|-------------|
| 4     | 500 | 200 151     | 500 | 200 191     |
| 6     | 500 | 200 152     | 500 | 200 192     |
| 8     | 500 | 200 153     | 500 | 200 193     |
| 10    | 500 | 200 154     | 500 | 200 194     |
| 12    | 500 | 200 155     | 500 | 200 195     |
| 16    | 400 | 200 156     | 400 | 200 196     |
| 20    | 400 | 200 157     | 400 | 200 197     |
| 25    | 400 | 200 158     | 400 | 200 198     |
| 32/25 | 400 | 200 159     | 400 | 200 199     |
| 40/25 | 400 | 200 160     | 400 | 200 200     |
| 4     | 500 | 200 161     | 500 | 200 201     |
| 6     | 500 | 200 162     | 500 | 200 202     |
| 8     | 500 | 200 163     | 500 | 200 203     |
| 10    | 500 | 200 164     | 500 | 200 204     |
| 12    | 500 | 200 165     | 500 | 200 205     |
| 16    | 400 | 200 166     | 400 | 200 206     |
| 20    | 400 | 200 167     | 400 | 200 207     |
| 25    | 400 | 200 168     | 400 | 200 208     |
| 32/25 | 400 | 200 169     | 400 | 200 209     |
| 4     | 500 | 200 171     | 500 | 200 211     |
| 6     | 500 | 200 172     | 500 | 200 212     |
| 10    | 500 | 200 173     | 500 | 200 213     |
| 12    | 500 | 200 174     | 500 | 200 214     |
| 16    | 400 | 200 175     | 400 | 200 215     |
| 20    | 400 | 200 176     | 400 | 200 216     |
| 25    | 400 | 200 177     | 400 | 200 217     |
| 32/25 | 400 | 200 178     | 400 | 200 218     |
| 40/25 | 400 | 200 179     | 400 | 200 219     |
| 4     | 500 | 200 181     | 500 | 200 221     |
| 6     | 500 | 200 182     | 500 | 200 222     |
| 10    | 500 | 200 183     | 500 | 200 223     |
| 12    | 500 | 200 184     | 500 | 200 224     |
| 20    | 400 | 200 185     | 400 | 200 225     |
| 25    | 400 | 200 186     | 400 | 200 226     |
| 32/25 | 400 | 200 187     | 400 | 200 227     |
| 40/25 | 400 | 200 188     | 400 | 200 228     |

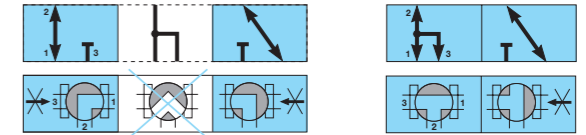
# Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 32 - DN 50

**NEW!**  
Up to DN 50!



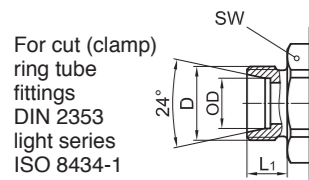
Handle included in delivery. For handle refer to "Attachments, accessories"  
 ✖ Application of pressure only as indicated in chapter "Technical information"  
 Please check pressure rating of the pipe fittings!  
 Actuators and custom orders on request  
 All dimensions subject to change without notice  
 Also available with most other connections  
 All ball valves available with mounting plate



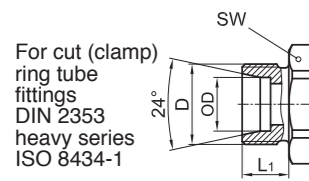
Dimensions in mm  
 Weight in kg  
 Pressure in bar

|             |                           |                           |
|-------------|---------------------------|---------------------------|
| Bore:       | L                         | T                         |
| Cycling:    | 90°                       | 90°                       |
| Body:       | steel, black oxide        | steel, black oxide        |
| Ball:       | steel, hard chrome plated | steel, hard chrome plated |
| Stem:       | steel, zinc plated        | steel, zinc plated        |
| Ball seals: | POM                       | POM                       |
| Stem seals: | NBR                       | NBR                       |

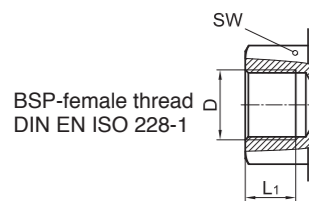
| Connection | DN | Thread D | OD | L | L <sub>1</sub> | L <sub>2</sub> | B | B <sub>1</sub> | B <sub>2</sub> | H | H <sub>1</sub> | H <sub>2</sub> | SW | SW <sub>1</sub> | Handle Weight Code |
|------------|----|----------|----|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|----|-----------------|--------------------|
|------------|----|----------|----|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|----|-----------------|--------------------|



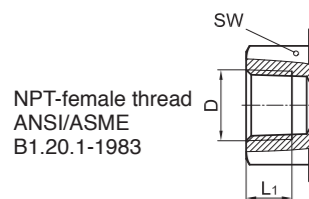
|    |         |    |     |    |    |     |      |       |    |      |      |    |    |    |      |
|----|---------|----|-----|----|----|-----|------|-------|----|------|------|----|----|----|------|
| 32 | M45 x 2 | 35 | 125 | 16 | 74 | 80  | 70,5 | 105,5 | 80 | 36,6 | 84,0 | 60 | 17 | 21 | 3,11 |
| 40 | M52 x 2 | 42 | 131 | 16 | 90 | 100 | 83,0 | 125,0 | 90 | 42,6 | 94,0 | 75 | 17 | 21 | 5,18 |



|    |         |    |     |    |    |    |      |       |    |      |      |    |    |    |      |
|----|---------|----|-----|----|----|----|------|-------|----|------|------|----|----|----|------|
| 32 | M52 x 2 | 38 | 137 | 22 | 74 | 80 | 76,5 | 111,5 | 80 | 36,6 | 84,0 | 60 | 17 | 21 | 3,32 |
|----|---------|----|-----|----|----|----|------|-------|----|------|------|----|----|----|------|



|    |                                |   |     |      |     |     |      |       |     |      |       |    |    |    |       |
|----|--------------------------------|---|-----|------|-----|-----|------|-------|-----|------|-------|----|----|----|-------|
| 32 | G1 <sup>1</sup> / <sub>4</sub> | - | 103 | 24,0 | 74  | 80  | 59,5 | 94,5  | 80  | 36,6 | 84,0  | 60 | 17 | 21 | 3,83  |
| 40 | G1 <sup>1</sup> / <sub>2</sub> | - | 114 | 26,0 | 90  | 100 | 76,4 | 118,4 | 90  | 42,6 | 94,0  | 75 | 17 | 21 | 6,28  |
| 50 | G2                             | - | 128 | 27,5 | 110 | 120 | 93,5 | 144,5 | 110 | 55,1 | 114,0 | 85 | 17 | 21 | 10,41 |



|    |   |   |     |      |     |     |      |       |     |      |       |    |    |    |       |
|----|---|---|-----|------|-----|-----|------|-------|-----|------|-------|----|----|----|-------|
| 32 | 1 <sup>1</sup> / <sub>4</sub> - 1 <sup>1</sup> / <sub>2</sub> NPT | - | 103 | 17,3 | 74  | 80  | 59,5 | 94,5  | 80  | 36,6 | 84,0  | 60 | 17 | 21 | 3,85  |
| 40 | 1 <sup>1</sup> / <sub>2</sub> - 1 <sup>1</sup> / <sub>2</sub> NPT | - | 114 | 17,3 | 90  | 100 | 76,4 | 118,4 | 90  | 42,6 | 94,0  | 75 | 17 | 21 | 6,28  |
| 50 | 2 - 1 <sup>1</sup> / <sub>2</sub> NPT                             | - | 128 | 17,3 | 110 | 120 | 93,5 | 144,5 | 110 | 55,1 | 114,0 | 85 | 17 | 22 | 10,43 |

| DN | PN  | Article-No. | PN  | Article-No. |
|----|-----|-------------|-----|-------------|
| 32 | 420 | 200230      | 420 | 200 240     |
| 40 | 420 | 200231      | 420 | 200 241     |
| 32 | 420 | 200232      | 420 | 200 242     |
| 32 | 420 | 200233      | 420 | 200 243     |
| 40 | 420 | 200234      | 420 | 200 244     |
| 50 | 420 | 200235      | 420 | 200 245     |
| 32 | 420 | 200236      | 420 | 200 246     |
| 40 | 420 | 200237      | 420 | 200 247     |
| 50 | 420 | 200238      | 420 | 200 248     |

# Multi-way ball valves with floating ball

3-way · stainless steel · threaded connector · DN 4 - DN 25

## NEW!

Smaller dimensions!

Handle included in delivery. For handle refer to "Attachments, accessories"

✳ Application of pressure only as indicated in chapter "Technical information"

Please check pressure rating of the pipe fittings!

Full-PTFE-version, actuators and custom orders on request

Stainless steel (material no. 1.4571 - or other stainless steels)

All ball valves available with mounting plate

Also available with most other connections

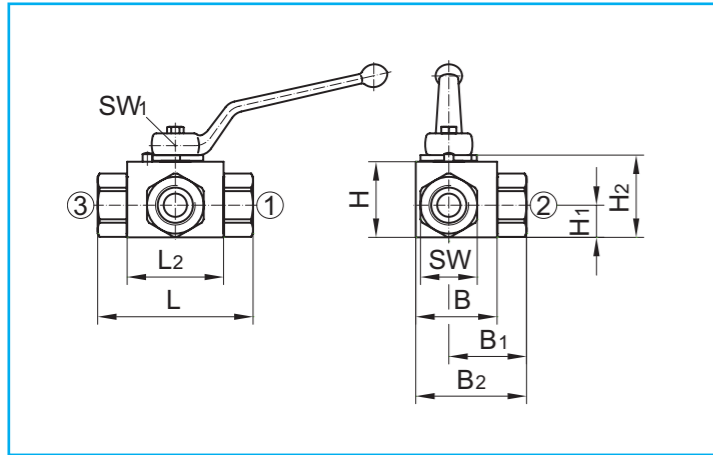
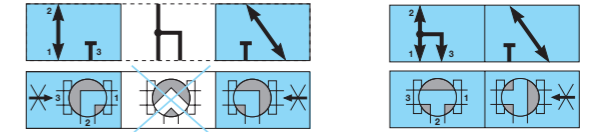
All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar

|             |                    |                    |
|-------------|--------------------|--------------------|
| Bore:       | L                  | T                  |
| Body:       | stainless steel    | stainless steel    |
| Ball:       | stainless steel    | stainless steel    |
| Stem:       | stainless steel    | stainless steel    |
| Ball seals: | POM                | POM                |
| Stem seals: | FKM                | FKM                |
| Handle:     | zinc, die cast     | zinc, die cast     |
| Stop plate: | steel, zinc plated | steel, zinc plated |



| Connection   | DN | Thread D       | OD | L   | L1   | L2 | B  | B1   | B2   | H  | H1   | H2   | SW | SW1 | Handle Code | Weight | DN | PN  | Article-No. | PN  | Article-No. |
|--|----|----------------|----|-----|------|----|----|------|------|----|------|------|----|-----|-------------|--------|----|-----|-------------|-----|-------------|
| For cut (clamp) ring tube fittings<br>DIN 2353<br>light series<br>ISO 8434-1 | 4  | M12 x 1,5      | 6  | 67  | 10   | 36 | 30 | 33,5 | 45,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,32   | 4  | 500 | 200 481     | 500 | 200 581     |
|  | 6  | M14 x 1,5      | 8  | 67  | 10   | 36 | 30 | 33,5 | 45,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,32   | 6  | 500 | 200 482     | 500 | 200 582     |
|  | 8  | M16 x 1,5      | 10 | 75  | 11   | 45 | 40 | 37,5 | 55,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,55   | 8  | 500 | 200 483     | 500 | 200 583     |
|  | 10 | M18 x 1,5      | 12 | 75  | 11   | 45 | 40 | 37,5 | 55,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,55   | 10 | 500 | 200 484     | 500 | 200 584     |
|  | 12 | M22 x 1,5      | 15 | 83  | 12   | 51 | 45 | 41,5 | 61,0 | 45 | 22,0 | 48,5 | 30 | 10  | 14          | 0,89   | 12 | 500 | 200 485     | 500 | 200 585     |
|  | 16 | M26 x 1,5      | 18 | 99  | 12   | 60 | 55 | 51,0 | 74,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,67   | 16 | 400 | 200 486     | 400 | 200 586     |
|  | 20 | M30 x 2        | 22 | 99  | 14   | 60 | 55 | 51,0 | 74,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,61   | 20 | 400 | 200 487     | 400 | 200 587     |
|  | 25 | M36 x 2        | 28 | 108 | 14   | 70 | 65 | 54,0 | 84,0 | 65 | 31,0 | 69,0 | 50 | 14  | 15          | 2,27   | 25 | 400 | 200 488     | 400 | 200 588     |
| For cut (clamp) ring tube fittings<br>DIN 2353<br>heavy series<br>ISO 8434-1 | 4  | M16 x 1,5      | 8  | 73  | 12   | 36 | 30 | 36,5 | 48,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,35   | 4  | 500 | 200 489     | 500 | 200 589     |
|  | 6  | M18 x 1,5      | 10 | 73  | 12   | 36 | 30 | 36,5 | 48,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,35   | 6  | 500 | 200 490     | 500 | 200 590     |
|  | 8  | M20 x 1,5      | 12 | 77  | 12   | 45 | 40 | 38,5 | 56,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,57   | 8  | 500 | 200 491     | 500 | 200 591     |
|  | 10 | M22 x 1,5      | 14 | 81  | 14   | 45 | 40 | 40,5 | 58,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,57   | 10 | 500 | 200 492     | 500 | 200 592     |
|  | 12 | M24 x 1,5      | 16 | 87  | 14   | 51 | 45 | 43,5 | 63,0 | 45 | 22,0 | 48,5 | 30 | 10  | 14          | 0,91   | 12 | 500 | 200 493     | 500 | 200 593     |
|  | 16 | M30 x 2        | 20 | 107 | 16   | 60 | 55 | 55,0 | 78,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,78   | 16 | 400 | 200 494     | 400 | 200 594     |
|  | 20 | M36 x 2        | 25 | 107 | 18   | 60 | 55 | 55,0 | 78,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,72   | 20 | 400 | 200 495     | 400 | 200 595     |
|  | 25 | M42 x 2        | 30 | 120 | 20   | 70 | 65 | 60,0 | 90,0 | 65 | 31,0 | 69,0 | 50 | 14  | 15          | 2,44   | 25 | 400 | 200 496     | 400 | 200 596     |
| BSP-female thread<br>DIN EN ISO 228-1  | 4  | G 1/8          | -  | 69  | 12   | 36 | 30 | 34,5 | 46,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,37   | 4  | 500 | 200 497     | 500 | 200 597     |
|  | 6  | G 1/4          | -  | 69  | 12   | 36 | 30 | 34,5 | 46,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,34   | 6  | 500 | 200 498     | 500 | 200 598     |
|  | 10 | G 3/8          | -  | 73  | 14   | 45 | 40 | 36,5 | 54,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,57   | 10 | 500 | 200 499     | 500 | 200 599     |
|  | 12 | G 1/2          | -  | 82  | 15   | 51 | 45 | 41,0 | 60,5 | 45 | 22,0 | 48,5 | 30 | 10  | 14          | 0,94   | 12 | 500 | 200 500     | 500 | 200 530     |
|  | 16 | G 5/8          | -  | 93  | 18   | 60 | 55 | 48,0 | 71,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,78   | 16 | 400 | 200 541     | 400 | 200 531     |
|  | 20 | G 3/4          | -  | 93  | 18   | 60 | 55 | 48,0 | 71,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,72   | 20 | 400 | 200 542     | 400 | 200 532     |
|  | 25 | G1             | -  | 115 | 18   | 70 | 65 | 57,5 | 87,5 | 65 | 31,0 | 69,0 | 50 | 14  | 15          | 2,65   | 25 | 400 | 200 543     | 400 | 200 533     |
| NPT-female thread<br>ANSI/ASME<br>B1.20.1-1983                               | 4  | 1/8 - 27 NPT   | -  | 69  | 7,0  | 36 | 30 | 34,5 | 46,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,37   | 4  | 500 | 200 544     | 500 | 200 534     |
|  | 6  | 1/4 - 18 NPT   | -  | 69  | 10,0 | 36 | 30 | 34,5 | 46,5 | 30 | 15,0 | 32,5 | 19 | 7   | 12          | 0,34   | 6  | 500 | 200 545     | 500 | 200 535     |
|  | 10 | 3/8 - 18 NPT   | -  | 73  | 10,3 | 45 | 40 | 36,5 | 54,0 | 35 | 14,5 | 38,5 | 24 | 8   | 13          | 0,57   | 10 | 500 | 200 546     | 500 | 200 536     |
|  | 12 | 1/2 - 14 NPT   | -  | 82  | 13,6 | 51 | 45 | 41,0 | 60,5 | 45 | 22,0 | 48,5 | 30 | 10  | 14          | 0,94   | 12 | 500 | 200 547     | 500 | 200 537     |
|  | 20 | 3/4 - 14 NPT   | -  | 93  | 14,1 | 60 | 55 | 48,0 | 71,5 | 60 | 29,0 | 64,0 | 41 | 14  | 15          | 1,75   | 20 | 400 | 200 548     | 400 | 200 538     |
|  | 25 | 1 - 11 1/2 NPT | -  | 115 | 16,8 | 70 | 65 | 57,5 | 87,5 | 65 | 31,0 | 69,0 | 50 | 14  | 15          | 2,71   | 25 | 400 | 200 549     | 400 | 200 539     |

# Multi-way ball valves with floating ball

3-way · stainless steel · threaded connector · DN 4 - DN 25

## NEW!

Smaller dimensions!

Handle included in delivery. For handle refer to "Attachments, accessories"

✦ Application of pressure only as indicated in chapter "Technical information"

Please check pressure rating of the pipe fittings!

Full-PTFE-version, actuators and custom orders on request

Stainless steel (material no. 1.4571 - or other stainless steels)

All ball valves available with mounting plate

Also available with most other connections

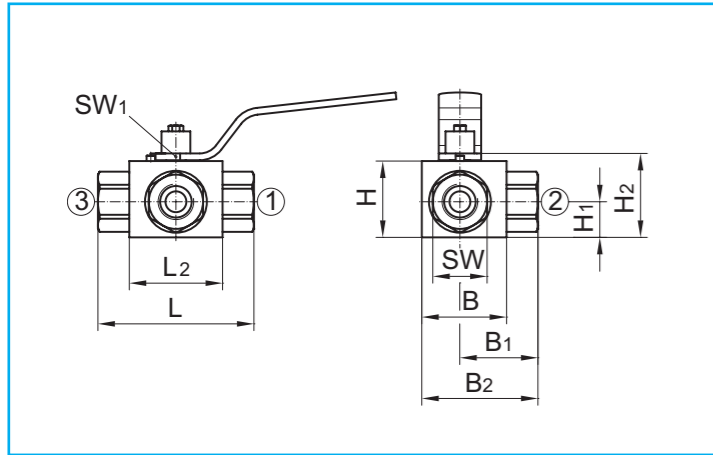
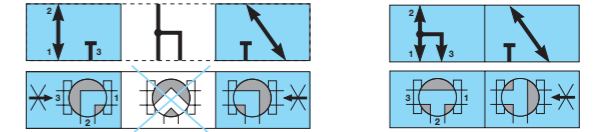
All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar

|  | Bore:       | L               | T               |
|--|-------------|-----------------|-----------------|
|  | Body:       | stainless steel | stainless steel |
|  | Ball:       | stainless steel | stainless steel |
|  | Stem:       | stainless steel | stainless steel |
|  | Ball seals: | PTFE Comp. 3    | PTFE Comp. 3    |
|  | Stem seals: | FKM             | FKM             |
|  | Handle:     | stainless steel | stainless steel |
|  | Stop plate: | stainless steel | stainless steel |

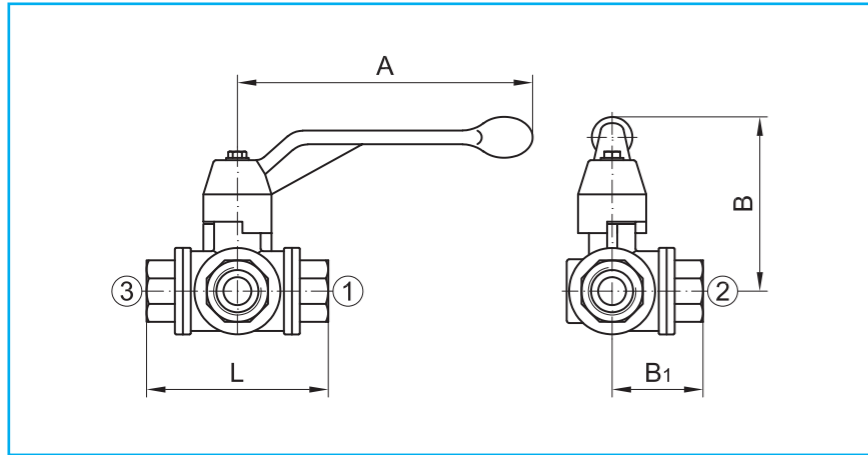


| Connection   | DN   | Thread D       | OD        | L   | L <sub>1</sub> | L <sub>2</sub> | B  | B <sub>1</sub> | B <sub>2</sub> | H    | H <sub>1</sub> | H <sub>2</sub> | SW   | SW <sub>1</sub> | Handle Code | Weight | DN   | PN  | Article-No. | PN      | Article-No. |         |
|--|--|----------------|-----------|-----|----------------|----------------|----|----------------|----------------|------|----------------|----------------|------|-----------------|-------------|--------|------|-----|-------------|---------|-------------|---------|
| For cut (clamp) ring tube fittings<br>DIN 2353<br>light series<br>ISO 8434-1 | 4  | M12 x 1,5      | 6         | 67  | 10             | 36             | 30 | 33,5           | 45,5           | 30   | 15,0           | 34,5           | 19   | 7               | 32          | 0,32   | 4    | 315 | 200 643     | 315     | 200 695     |         |
|  | 6  | M14 x 1,5      | 8         | 67  | 10             | 36             | 30 | 33,5           | 45,5           | 30   | 15,0           | 34,5           | 19   | 7               | 32          | 0,32   | 6    | 315 | 200 644     | 315     | 200 696     |         |
|  | 8  | M16 x 1,5      | 10        | 75  | 11             | 45             | 40 | 37,5           | 55,0           | 35   | 14,5           | 39,5           | 24   | 8               | 33          | 0,55   | 8    | 315 | 200 645     | 315     | 200 697     |         |
|  | 10   | M18 x 1,5      | 12        | 75  | 11             | 45             | 40 | 37,5           | 55,0           | 35   | 14,5           | 39,5           | 24   | 8               | 33          | 0,55   | 10   | 315 | 200 646     | 315     | 200 698     |         |
|  | 12   | M22 x 1,5      | 15        | 83  | 12             | 51             | 45 | 41,5           | 61,0           | 45   | 22,0           | 49,5           | 30   | 10              | 34          | 0,89   | 12   | 315 | 200 647     | 315     | 200 699     |         |
|  | 16   | M26 x 1,5      | 18        | 99  | 12             | 60             | 55 | 51,0           | 74,5           | 60   | 29,0           | 65,5           | 41   | 14              | 35          | 1,67   | 16   | 250 | 200 648     | 250     | 200 700     |         |
|  | 20   | M30 x 2        | 22        | 99  | 14             | 60             | 55 | 51,0           | 74,5           | 60   | 29,0           | 65,5           | 41   | 14              | 35          | 1,61   | 20   | 250 | 200 649     | 250     | 200 701     |         |
|  | 25   | M36 x 2        | 28        | 108 | 14             | 70             | 65 | 54,0           | 84,0           | 65   | 31,0           | 70,5           | 50   | 14              | 35          | 2,27   | 25   | 250 | 200 650     | 250     | 200 702     |         |
|  | For cut (clamp) ring tube fittings<br>DIN 2353<br>heavy series<br>ISO 8434-1 | 4              | M16 x 1,5 | 8   | 73             | 12             | 36 | 30             | 36,5           | 48,5 | 30             | 15,0           | 32,5 | 19              | 7           | 32     | 0,35 | 4   | 315         | 200 651 | 315         | 200 703 |
|  |  | 6              | M18 x 1,5 | 10  | 73             | 12             | 36 | 30             | 36,5           | 48,5 | 30             | 15,0           | 32,5 | 19              | 7           | 32     | 0,35 | 6   | 315         | 200 652 | 315         | 200 704 |
| 8  |  | M20 x 1,5      | 12        | 77  | 12             | 45             | 40 | 38,5           | 56,0           | 35   | 14,5           | 38,5           | 24   | 8               | 33          | 0,57   | 8    | 315 | 200 653     | 315     | 200 705     |         |
| 10   |  | M22 x 1,5      | 14        | 81  | 14             | 45             | 40 | 40,5           | 58,0           | 35   | 14,5           | 38,5           | 24   | 8               | 33          | 0,57   | 10   | 315 | 200 654     | 315     | 200 706     |         |
| 12   |  | M24 x 1,5      | 16        | 87  | 14             | 51             | 45 | 43,5           | 63,0           | 45   | 22,0           | 48,5           | 30   | 10              | 34          | 0,91   | 12   | 315 | 200 655     | 315     | 200 707     |         |
| 16   |  | M30 x 2        | 20        | 107 | 16             | 60             | 55 | 55,0           | 78,5           | 60   | 29,0           | 64,0           | 41   | 14              | 35          | 1,78   | 16   | 250 | 200 656     | 250     | 200 708     |         |
| 20   |  | M36 x 2        | 25        | 107 | 18             | 60             | 55 | 55,0           | 78,5           | 60   | 29,0           | 64,0           | 41   | 14              | 35          | 1,72   | 20   | 250 | 200 657     | 250     | 200 709     |         |
| 25   |  | M42 x 2        | 30        | 120 | 20             | 70             | 65 | 60,0           | 90,0           | 65   | 31,0           | 69,0           | 50   | 14              | 35          | 2,44   | 25   | 250 | 200 658     | 250     | 200 710     |         |
| BSP-female thread<br>DIN EN ISO 228-1  |  | 4              | G 1/8     | -   | 69             | 12             | 36 | 30             | 34,5           | 46,5 | 30             | 15,0           | 32,5 | 19              | 7           | 32     | 0,37 | 4   | 315         | 200 659 | 315         | 200 711 |
|  |  | 6              | G 1/4     | -   | 69             | 12             | 36 | 30             | 34,5           | 46,5 | 30             | 15,0           | 32,5 | 19              | 7           | 32     | 0,34 | 6   | 315         | 200 660 | 315         | 200 712 |
|  | 10   | G 3/8          | -         | 73  | 14             | 45             | 40 | 36,5           | 54,0           | 35   | 14,5           | 38,5           | 24   | 8               | 33          | 0,57   | 10   | 315 | 200 661     | 315     | 200 713     |         |
|  | 12   | G 1/2          | -         | 82  | 15             | 51             | 45 | 41,0           | 60,5           | 45   | 22,0           | 48,5           | 30   | 10              | 34          | 0,94   | 12   | 315 | 200 662     | 315     | 200 714     |         |
|  | 16   | G 5/8          | -         | 93  | 18             | 60             | 55 | 48,0           | 71,5           | 60   | 29,0           | 64,0           | 41   | 14              | 35          | 1,78   | 16   | 250 | 200 663     | 250     | 200 715     |         |
|  | 20   | G 3/4          | -         | 93  | 18             | 60             | 55 | 48,0           | 71,5           | 60   | 29,0           | 64,0           | 41   | 14              | 35          | 1,72   | 20   | 250 | 200 664     | 250     | 200 716     |         |
| NPT-female thread<br>ANSI/ASME<br>B1.20.1-1983                               | 4  | 1/8 - 27 NPT   | -         | 69  | 7,0            | 36             | 30 | 34,5           | 46,5           | 30   | 15,0           | 32,5           | 19   | 7               | 32          | 0,37   | 4    | 315 | 200 666     | 315     | 200 718     |         |
|  | 6  | 1/4 - 18 NPT   | -         | 69  | 10,0           | 36             | 30 | 34,5           | 46,5           | 30   | 15,0           | 32,5           | 19   | 7               | 32          | 0,34   | 6    | 315 | 200 667     | 315     | 200 719     |         |
|  | 10   | 3/8 - 18 NPT   | -         | 73  | 10,3           | 45             | 40 | 36,5           | 54,0           | 35   | 14,5           | 38,5           | 24   | 8               | 33          | 0,57   | 10   | 315 | 200 668     | 315     | 200 720     |         |
|  | 12   | 1/2 - 14 NPT   | -         | 82  | 13,6           | 51             | 45 | 41,0           | 60,5           | 45   | 22,0           | 48,5           | 30   | 10              | 34          | 0,94   | 12   | 315 | 200 669     | 315     | 200 721     |         |
|  | 20   | 3/4 - 14 NPT   | -         | 93  | 14,1           | 60             | 55 | 48,0           | 71,5           | 60   | 29,0           | 64,0           | 41   | 14              | 35          | 1,75   | 20   | 250 | 200 670     | 250     | 200 722     |         |
|  | 25   | 1 - 11 1/2 NPT | -         | 115 | 16,8           | 70             | 65 | 57,5           | 87,5           | 65   | 31,0           | 69,0           | 50   | 14              | 35          | 2,71   | 25   | 250 | 200 671     | 250     | 200 723     |         |



# Multi-way ball valves with floating ball

3-way · brass · threaded connector · DN 6 - DN 80



Handle included in delivery

✳ Application of pressure only as indicated in chapter "Technical information"

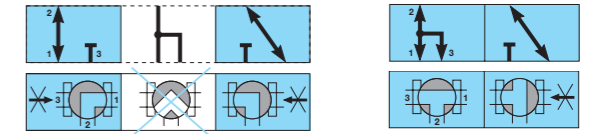
Actuators and custom orders on request

All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar



|             |                           |                           |
|-------------|---------------------------|---------------------------|
| Bore:       | L                         | T                         |
| Cycling:    | 90°                       | 90°                       |
| Body:       | brass                     | brass                     |
| Ball:       | brass, hard chrome plated | brass, hard chrome plated |
| Stem:       | brass                     | brass                     |
| Ball seals: | PTFE                      | PTFE                      |
| Stem seals: | PTFE                      | PTFE                      |

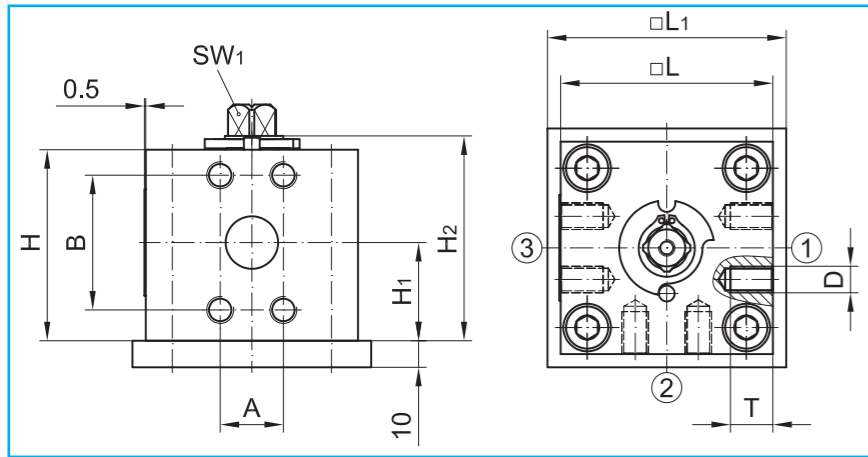
| Connection                          | DN/LW | Thread D | L   | L1  | A   | B     | B1   | Weight |
|-------------------------------------|-------|----------|-----|-----|-----|-------|------|--------|
| BSP-female thread<br>DIN EN 10226-1 | 6/10  | Rp 1/4   | 71  | 13  | 130 | 85    | 35,5 | 0,7    |
|                                     | 10/13 | Rp 3/8   | 71  | 13  | 130 | 85    | 35,5 | 0,7    |
|                                     | 15/13 | Rp 1/2   | 80  | 13  | 130 | 85    | 40,0 | 0,7    |
|                                     | 20/18 | Rp 3/4   | 96  | 15  | 160 | 98    | 48,0 | 1,1    |
|                                     | 25/23 | Rp 1     | 113 | 17  | 160 | 102   | 56,5 | 1,7    |
|                                     | 32/29 | Rp 1 1/4 | 130 | 19  | 195 | 121   | 65,0 | 2,6    |
|                                     | 40/35 | Rp 1 1/2 | 147 | 22  | 195 | 125   | 73,5 | 3,7    |
|                                     | 50/44 | Rp 2     | 169 | 27  | 235 | 141   | 84,5 | 5,8    |
| 80/44                               | Rp 3  | 202      | 35  | 235 | 141 | 101,0 | 7,0  |        |

| DN/LW | PN | Article-No. | PN | Article-No. |
|-------|----|-------------|----|-------------|
| 6/10  | 40 | 201 501     | 40 | 201 551     |
| 10/13 | 40 | 201 502     | 40 | 201 552     |
| 15/13 | 40 | 201 503     | 40 | 201 553     |
| 20/18 | 40 | 201 504     | 40 | 201 554     |
| 25/23 | 25 | 201 505     | 25 | 201 555     |
| 32/29 | 16 | 201 506     | 16 | 201 556     |
| 40/35 | 16 | 201 507     | 16 | 201 557     |
| 50/44 | 16 | 201 508     | 16 | 201 558     |
| 80/44 | 16 | 201 509     | 16 | 201 559     |



# Multi-way ball valves with floating ball

3-way · steel · ISO 6162 (SAE) · DN 19 - DN 32



Handle on request, refer to "Attachments, accessories".

✦ Application of pressure only as indicated in chapter "Technical information"

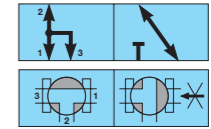
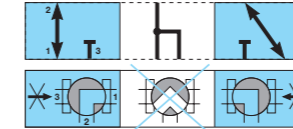
Actuators and custom orders on request

All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar



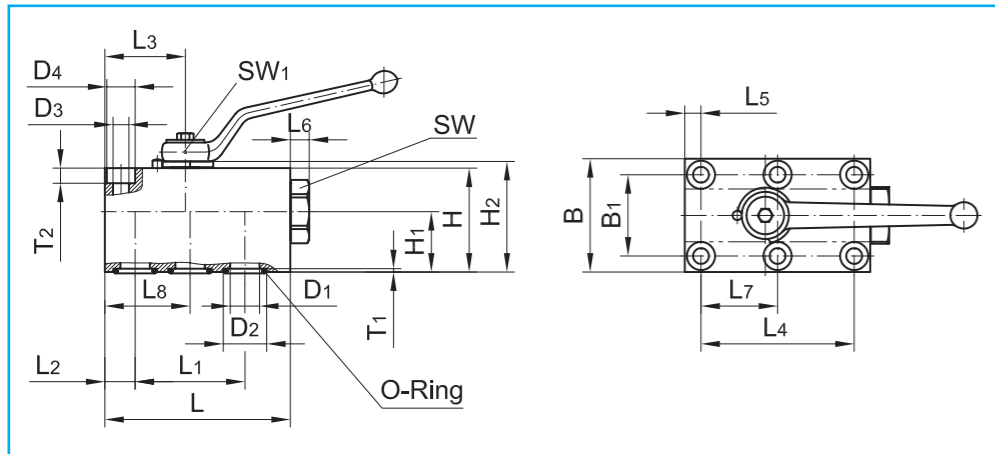
|             |                           |                           |                           |                           |
|-------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Bore:       | L                         | L                         | T                         | T                         |
| Cycling:    | 90°                       | 90°                       | 90°                       | 90°                       |
| Body:       | steel, zinc plated        | steel, zinc plated        | steel, zinc plated        | steel, zinc plated        |
| Ball:       | steel, hard chrome plated | steel, hard chrome plated | steel, hard chrome plated | steel, hard chrome plated |
| Stem:       | steel, zinc plated        | steel, zinc plated        | steel, zinc plated        | steel, zinc plated        |
| Ball seals: | POM                       | POM                       | POM                       | POM                       |
| Stem seals: | NBR                       | FKM                       | NBR                       | FKM                       |

| Connection | DN | Flange-size<br>(inch) | D             | T  | A    | B    | L   | L1  | H   | H1 | H2    | SW1 | Weight | DN | PN          |             | PN          |             | PN          |             | PN  |         |
|------------|----|-----------------------|---------------|----|------|------|-----|-----|-----|----|-------|-----|--------|----|-------------|-------------|-------------|-------------|-------------|-------------|-----|---------|
|            |    |                       |               |    |      |      |     |     |     |    |       |     |        |    | Article-No. | Article-No. | Article-No. | Article-No. | Article-No. | Article-No. |     |         |
| ISO 6162-2 | 19 | 3/4                   | M10           | 21 | 23,8 | 50,8 | 80  | 90  | 72  | 37 | 77,5  | 14  | 4,0    | 19 | 400         | 204 301     | 400         | 204 306     | 400         | 204 311     | 400 | 204 316 |
|            | 25 | 1                     | M12           | 23 | 27,8 | 57,2 | 90  | 100 | 80  | 40 | 85,5  | 14  | 5,5    | 25 | 400         | 204 302     | 400         | 204 307     | 400         | 204 312     | 400 | 204 317 |
|            | 32 | 1 1/4                 | M12           | 24 | 31,8 | 66,6 | 100 | 110 | 100 | 50 | 106,0 | 17  | 8,0    | 32 | 400         | 204 304     | 400         | 204 309     | 400         | 204 314     | 400 | 204 319 |
|            | 19 | 3/4                   | 3/8 - 16 UNC  | 24 | 23,8 | 50,8 | 80  | 90  | 72  | 37 | 77,5  | 14  | 4,0    | 19 | 400         | 204 321     | 400         | 204 326     | 400         | 204 331     | 400 | 204 336 |
|            | 25 | 1                     | 7/16 - 14 UNC | 27 | 27,8 | 57,2 | 90  | 100 | 80  | 40 | 85,5  | 14  | 5,5    | 25 | 400         | 204 322     | 400         | 204 327     | 400         | 204 332     | 400 | 204 337 |
|            | 32 | 1 1/4                 | 1/2 - 13 UNC  | 28 | 31,8 | 66,7 | 100 | 110 | 100 | 50 | 106,0 | 17  | 8,0    | 32 | 400         | 204 323     | 400         | 204 328     | 400         | 204 333     | 400 | 204 338 |



# Multi-way ball valves with floating ball

3-way · steel · manifold mounting · DN 6 - DN 65



Handle and o-rings included in delivery

For handles refer to "Attachments, accessories".

✳ Application of pressure only as indicated in chapter "Technical information"

Actuators and custom orders on request

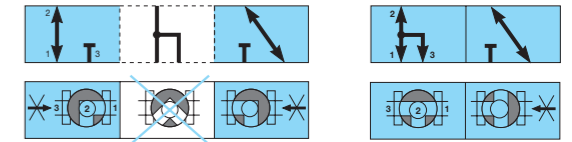
All dimensions subject to change without notice

\*) DN 40 - DN 65: grey cast iron

Dimensions in mm

Weight in kg

Pressure in bar



|             |                           |                           |
|-------------|---------------------------|---------------------------|
| Bore:       | L                         | T                         |
| Cycling:    | 90°                       | 90°                       |
| Body*:      | steel, black oxide        | steel, black oxide        |
| Ball:       | steel, hard chrome plated | steel, hard chrome plated |
| Stem:       | steel, zinc plated        | steel, zinc plated        |
| Body seals: | NBR                       | NBR                       |
| Ball seals: | POM                       | POM                       |
| Stem seals: | NBR                       | NBR                       |

| Connection                   | DN | L   | L1  | L2   | L3    | L4  | L5   | L6   | L7    | L8    | B   | B1  | H   | H1   | H2    | T1  | T2   |
|------------------------------|----|-----|-----|------|-------|-----|------|------|-------|-------|-----|-----|-----|------|-------|-----|------|
| Body-Flange with O-ring-seal | 6  | 59  | 35  | 8,5  | 23,5  | 35  | 8,5  | 4,5  | 17,5  | 26,0  | 40  | 27  | 35  | 20,0 | 37,5  | 1,8 | 6,8  |
|                              | 10 | 73  | 44  | 10,0 | 29,0  | 55  | 7,5  | 7,0  | 27,5  | 29,0  | 55  | 40  | 45  | 24,5 | 48,5  | 1,8 | 8,0  |
|                              | 12 | 98  | 58  | 16,0 | 42,5  | 83  | 7,5  | 10,0 | 41,5  | 42,5  | 60  | 45  | 55  | 32,0 | 58,5  | 1,8 | 8,0  |
|                              | 20 | 117 | 69  | 20,0 | 52,0  | 97  | 10,0 | 12,0 | 48,5  | 52,0  | 70  | 51  | 70  | 39,0 | 74,0  | 2,7 | 11,0 |
|                              | 25 | 138 | 81  | 24,0 | 62,0  | 115 | 10,0 | 7,0  | 57,5  | 62,0  | 80  | 60  | 80  | 46,0 | 84,0  | 2,7 | 11,0 |
|                              | 32 | 165 | 96  | 29,0 | 75,0  | 136 | 12,0 | 11,0 | 68,0  | 75,0  | 100 | 78  | 100 | 56,6 | 104,5 | 2,7 | 12,0 |
|                              | 40 | 175 | 112 | 28,5 | 84,5  | 112 | 28,5 | 25,0 | 56,0  | 84,5  | 130 | 95  | 100 | 52,6 | 104,5 | 2,7 | 17,5 |
|                              | 50 | 215 | 136 | 38,0 | 106,0 | 136 | 38,0 | 25,0 | 68,0  | 106,0 | 150 | 112 | 110 | 55,1 | 114,5 | 2,7 | 20,0 |
|                              | 65 | 320 | 190 | 55,0 | 150,0 | 210 | 45,0 | 59,0 | 105,0 | 150,0 | 235 | 185 | 180 | 80,0 | 185,0 | 2,8 | 25,5 |

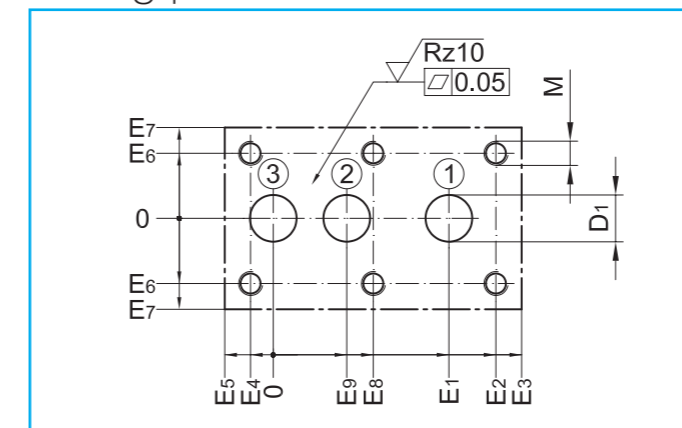
| DN | D1   | D2   | D3   | D4 | SW | SW1 | Handle Code | Weight | for Cylinder-head screws DIN EN ISO 4762 (DIN 912) |
|----|------|------|------|----|----|-----|-------------|--------|--|
| 6  | 6,0  | 12,0 | 6,4  | 11 | 24 | 7   | 12          | 0,58   | M6 - 10,9  |
| 10 | 9,5  | 15,0 | 8,4  | -  | 32 | 8   | 13          | 1,15   | M8 - 10,9  |
| 12 | 12,5 | 25,0 | 8,4  | -  | 36 | 10  | 14          | 2,11   | M8 - 12,9  |
| 20 | 20,0 | 30,0 | 10,5 | 17 | -  | 14  | 15          | 4,00   | M10 - 12,9   |
| 25 | 24,0 | 35,0 | 10,5 | 17 | 50 | 14  | 15          | 5,58   | M10 - 12,9   |
| 32 | 32,0 | 40,0 | 13,0 | 19 | 70 | 17  | 21          | 11,14  | M12 - 12,9   |
| 40 | 38,0 | 48,5 | 17,0 | 26 | -  | 17  | 21          | 15,19  | M16 - 12,9   |
| 50 | 48,0 | 55,5 | 21,0 | 33 | -  | 17  | 22          | 22,67  | M20 - 12,9   |
| 65 | 62,0 | 79,0 | 26,0 | 40 | -  | 17  | 22          | 101,50 | M24 - 12,9   |

| PN  | Article-No. | PN  | Article-No. |
|-----|-------------|-----|-------------|
| 500 | 206 101     | 500 | 206 121     |
| 500 | 206 102     | 500 | 206 122     |
| 500 | 206 103     | 500 | 206 123     |
| 400 | 206 104     | 400 | 206 124     |
| 400 | 206 105     | 400 | 206 125     |
| 400 | 206 106     | 400 | 206 126     |
| 400 | 206 107     | 400 | 206 127     |
| 400 | 206 108     | 400 | 206 128     |
| 400 | 206 131     | 400 | 206 132     |

| DN | D1   | E1  | E2    | E3    | E4   | E5   | E6   | E7    | E8   | E9   | M   | O-Ring       |
|----|------|-----|-------|-------|------|------|------|-------|------|------|-----|--------------|
| 6  | 6,0  | 35  | 35,0  | 50,5  | 0,0  | 8,5  | 13,5 | 20,0  | 17,5 | 17,5 | M 6 | 7,50 x 2,50  |
| 10 | 9,5  | 44  | 52,5  | 63,0  | 2,5  | 10,0 | 20,0 | 27,5  | 25,0 | 19,0 | M 8 | 10,50 x 2,50 |
| 12 | 15,5 | 58  | 74,5  | 82,0  | 8,5  | 16,0 | 22,5 | 30,0  | 33,0 | 26,5 | M 8 | 20,50 x 2,50 |
| 20 | 20,0 | 69  | 87,0  | 97,0  | 10,0 | 20,0 | 25,5 | 35,0  | 38,5 | 32,0 | M10 | 23,50 x 3,50 |
| 25 | 24,0 | 81  | 101,0 | 114,0 | 14,0 | 24,0 | 30,0 | 40,0  | 43,5 | 38,0 | M10 | 28,50 x 3,50 |
| 32 | 32,0 | 96  | 119,0 | 136,0 | 17,0 | 29,0 | 39,0 | 50,0  | 51,0 | 46,0 | M12 | 33,50 x 3,50 |
| 40 | 38,0 | 112 | 112,0 | 146,5 | 0,0  | 28,5 | 47,5 | 65,0  | 56,0 | 56,0 | M16 | 42,00 x 3,50 |
| 50 | 48,0 | 136 | 136,0 | 177,0 | 0,0  | 38,0 | 56,0 | 75,0  | 68,0 | 68,0 | M20 | 49,00 x 3,50 |
| 65 | 62,0 | 190 | 200,0 | 265,0 | 10,0 | 55,0 | 92,5 | 117,5 | 95,0 | 95,0 | M24 | 72,66 x 3,53 |

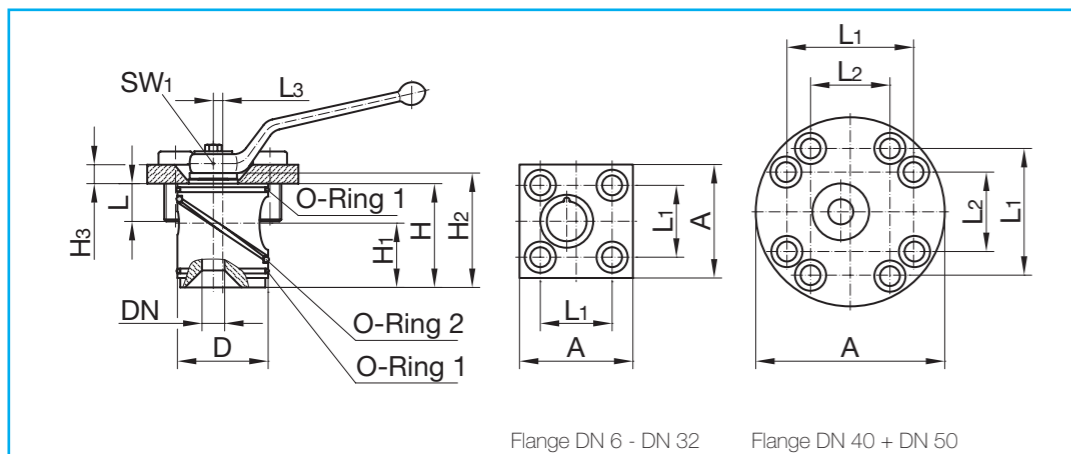
General tolerances  
DIN ISO 2768  
Surfaces  
DIN EN ISO 4287

## Drilling pattern



# Multi-way ball valves with floating ball

3-way · steel · for manifold insertion as cartridge type · DN 6 - DN 50



Handle and attachment screws included in delivery

For handles refer to "Attachments, accessories".

✳ Application of pressure only as indicated in chapter "Technical information"

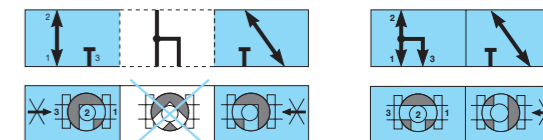
Actuators and custom orders on request

All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar

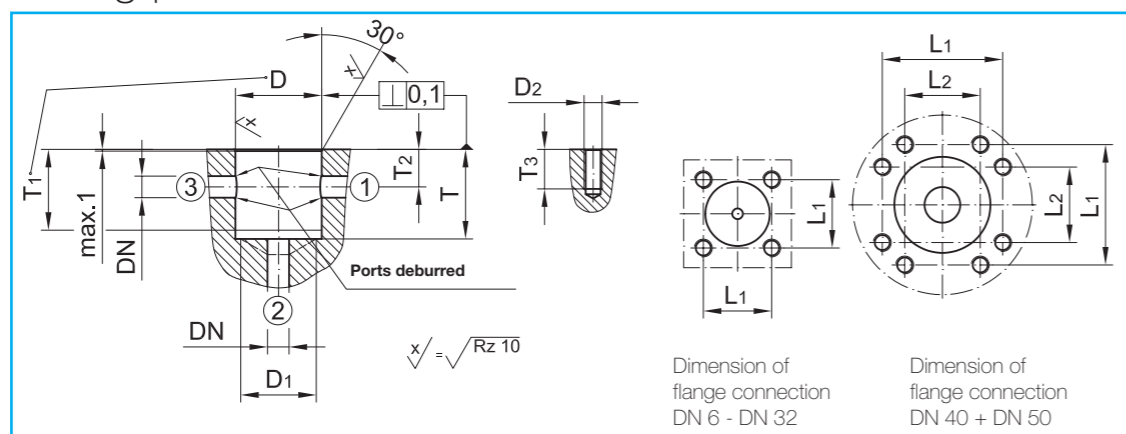


|             |                           |                           |
|-------------|---------------------------|---------------------------|
| Bore:       | L                         | T                         |
| Cycling:    | 90°                       | 90°                       |
| Body:       | steel, black oxide        | steel, black oxide        |
| Ball:       | steel, hard chrome plated | steel, hard chrome plated |
| Stem:       | steel, zinc plated        | steel, zinc plated        |
| Body seals: | NBR                       | NBR                       |
| Ball seals: | POM                       | POM                       |
| Stem seals: | NBR                       | NBR                       |

| Connection | DN | D   | H     | H <sub>1</sub> | H <sub>2</sub> | H <sub>3</sub> | L  | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | SW <sub>1</sub> | A   | Handle Code | DN | O-Ring 1      | O-Ring 2      | Weight | Cylinder-head screws<br>DIN EN ISO 4762<br>(DIN 912) | PN  | Article-No. | PN  | Article-No. |
|------------|----|-----|-------|----------------|----------------|----------------|----|----------------|----------------|----------------|-----------------|-----|-------------|----|---------------|---------------|--------|--|-----|-------------|-----|-------------|
|            |    |     |       |                |                |                |    |                |                |                |                 |     |             |    |               |               |        |  |     |             |     |             |
|            | 10 | 45  | 50,9  | 32,5           | 55,8           | 10             | 20 | 50             | -              | 5,0            | 8               | 80  | 13          | 10 | 40,00 x 2,00  | 42,00 x 3,00  | 1,15   | M12 x 25-8.8   | 500 | 107 032     | 500 | 107 042     |
|            | 12 | 48  | 54,9  | 34,0           | 61,5           | 10             | 20 | 50             | -              | 5,0            | 10              | 80  | 14          | 12 | 43,00 x 2,00  | 46,00 x 3,00  | 1,29   | M12 x 25-8.8   | 400 | 107 033     | 400 | 107 043     |
|            | 16 | 54  | 58,9  | 36,0           | 64,5           | 10             | 20 | 60             | -              | 5,5            | 10              | 90  | 14          | 16 | 49,00 x 2,00  | 50,39 x 3,53  | 1,59   | M12 x 25-8.8   | 315 | 107 034     | 315 | 107 044     |
|            | 20 | 63  | 72,9  | 44,0           | 82,5           | 18             | 25 | 70             | -              | 7,0            | 14              | 100 | 15          | 20 | 55,20 x 3,00  | 61,00 x 3,50  | 3,04   | M16 x 35-8.8   | 315 | 107 035     | 315 | 107 045     |
|            | 25 | 70  | 78,9  | 47,0           | 89,0           | 18             | 25 | 70             | -              | 7,0            | 14              | 100 | 15          | 25 | 63,00 x 3,00  | 67,00 x 4,00  | 3,31   | M16 x 35-8.8   | 315 | 107 036     | 315 | 107 046     |
|            | 32 | 92  | 100,0 | 57,5           | 132,5          | 35             | 30 | 100            | -              | 10,0           | 17              | 140 | 21          | 32 | 82,14 x 3,53  | 92,00 x 5,00  | 9,26   | M20 x 50-8.8   | 315 | 107 037     | 315 | 107 047     |
|            | 40 | 107 | 116,0 | 66,0           | 150,5          | 35             | 30 | 134            | 84             | 10,0           | 17              | 200 | 21          | 40 | 98,02 x 3,53  | 108,00 x 6,00 | 14,77  | M20 x 50-8.8   | 315 | 107 038     | 315 | 107 048     |
|            | 50 | 126 | 130,0 | 73,0           | 165,0          | 35             | 30 | 152            | 96             | 11,6           | 17              | 230 | 22          | 50 | 117,07 x 3,53 | 124,00 x 6,00 | 20,60  | M20 x 50-8.8   | 315 | 107 039     | 315 | 107 049     |

| General tolerances<br>DIN ISO 2768<br>Surfaces<br>DIN EN ISO 4287 | DN | D<br>H9 | D <sub>1</sub><br>max. | D <sub>2</sub> | L <sub>1</sub><br>±0,2 | L <sub>2</sub><br>±0,2 | T<br>+0,1 | T <sub>1</sub><br>+0,2 | T <sub>2</sub><br>+0,1 | T <sub>3</sub><br>min. | Mounting-tool |             |
|---|----|---------|------------------------|----------------|------------------------|------------------------|-----------|------------------------|------------------------|------------------------|---------------|-------------|
|   |    |         |                        |                |                        |                        |           |                        |                        |                        | DN            | Article-No. |
|   | 6  | 36      | 31                     | M10            | 38                     | -                      | 40        | 38                     | 13,6                   | 22                     | 6             | 107 051     |
|   | 10 | 45      | 39                     | M12            | 50                     | -                      | 51        | 47                     | 18,4                   | 22                     | 10            | 107 052     |
|   | 12 | 48      | 42                     | M12            | 50                     | -                      | 55        | 50                     | 20,9                   | 22                     | 12            | 107 053     |
|   | 16 | 54      | 47                     | M12            | 60                     | -                      | 59        | 54                     | 22,9                   | 22                     | 16            | 107 054     |
|   | 20 | 63      | 55                     | M16            | 70                     | -                      | 73        | 69                     | 28,9                   | 28                     | 20            | 107 055     |
|   | 25 | 70      | 62                     | M16            | 70                     | -                      | 79        | 74                     | 31,9                   | 28                     | 25            | 107 056     |
|   | 32 | 92      | 80                     | M20            | 100                    | -                      | 100       | 96                     | 42,5                   | 33                     | 32            | 107 057     |
|   | 40 | 107     | 95                     | M20            | 134                    | 84                     | 116       | 111                    | 50,0                   | 33                     | 40            | 107 058     |
|   | 50 | 126     | 115                    | M20            | 152                    | 96                     | 130       | 125                    | 57,0                   | 33                     | 50            | 107 059     |

## Drilling pattern







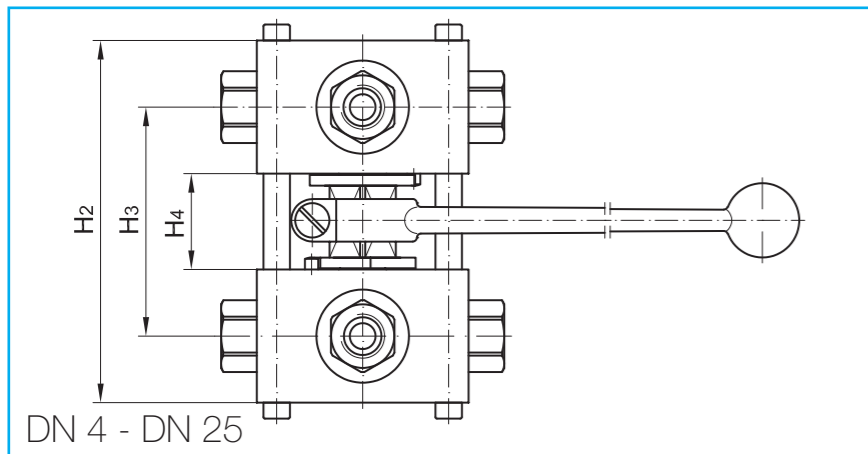






# Multi-way ball valves with trunnion ball

Steel or stainless steel • as combination

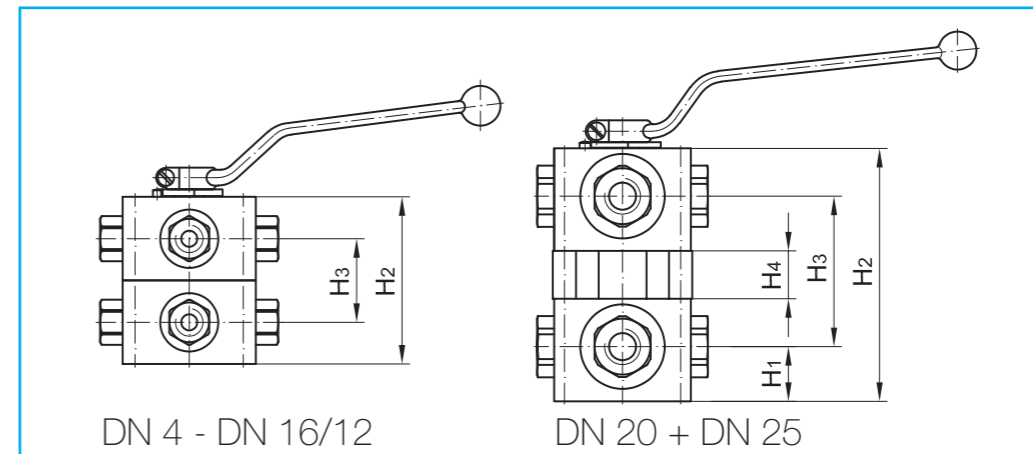


Handle included in delivery  
 For dimensions and article-numbers for ball valve bodies refer to the respective chapter.  
 Custom orders on request  
 All dimensions subject to change without notice  
 Dimensions in mm

**Also available completely assembled**

| Connection | DN    | H2  | H3  | H4 | Handle Code |
|------------|-------|-----|-----|----|-------------|
| ALL        | 4     | 114 | 74  | 34 | 44          |
|            | 6     | 114 | 74  | 34 | 44          |
|            | 8     | 136 | 86  | 36 | 45          |
|            | 10    | 136 | 86  | 36 | 45          |
|            | 12    | 146 | 91  | 36 | 45          |
|            | 16/12 | 146 | 91  | 36 | 45          |
|            | 20    | 195 | 115 | 45 | 47          |
| 25         | 207   | 120 | 45  | 47 |             |

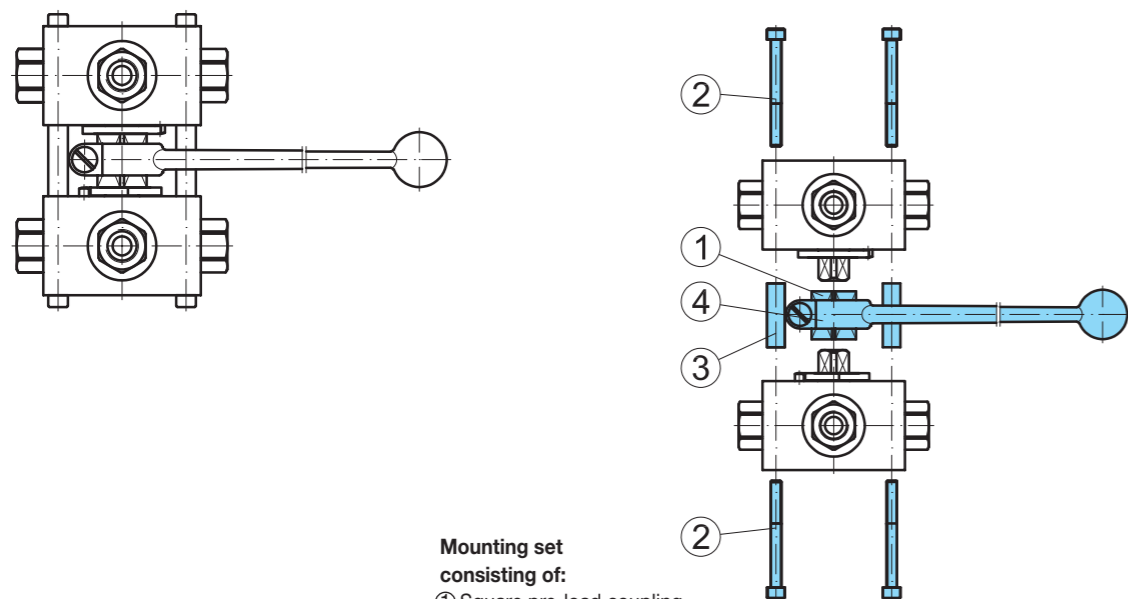
| Article-No. |
|-------------|
| 203 890     |
| 203 890     |
| 203 891     |
| 203 891     |
| 203 892     |
| 203 892     |
| 203 893     |
| 203 894     |



Handle included in delivery  
 For dimensions and article-numbers for ball valve bodies refer to the respective chapter.  
 Custom orders on request  
 All dimensions subject to change without notice  
 Dimensions in mm

| Connection | DN    | H1   | H2  | H3  | H4 | Handle Code |
|------------|-------|------|-----|-----|----|-------------|
| ALL        | 4     | -    | 80  | 40  | -  | 7           |
|            | 6     | -    | 80  | 40  | -  | 7           |
|            | 8     | -    | 100 | 50  | -  | 8           |
|            | 10    | -    | 100 | 50  | -  | 8           |
|            | 12    | -    | 110 | 55  | -  | 8           |
|            | 16/12 | -    | 110 | 55  | -  | 8           |
|            | 20    | 40,0 | 185 | 110 | 35 | 10          |
|            | 25    | 43,5 | 197 | 116 | 35 | 10          |

Combination consisting of:  
 two multi-way ball valves (without handle) and one mounting set

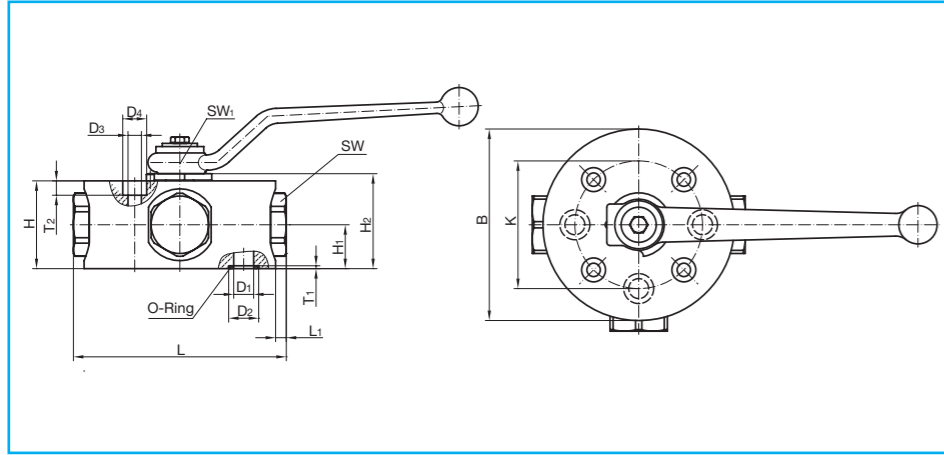


**Mounting set consisting of:**  
 ① Square pre-load coupling  
 ② Hex-head bolt (6 pc.)  
 ③ Spacer sleeves (3 pc.)  
 ④ Handle

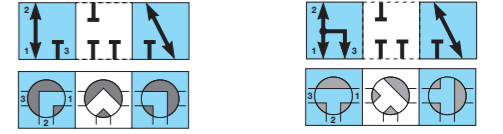


# Multi-way ball valves with trunnion ball

3-way · steel · manifold mounting · DN 6 - DN 25



Handle and o-rings included in delivery  
 For handles refer to "Attachments, accessories"  
 For more porting patterns refer to "Standard- and special porting patterns".  
 \*) can be actuated up to 100 bar manually  
 Actuators and custom orders on request  
 All dimensions subject to change without notice  
 Dimensions in mm  
 Weight in kg  
 Pressure in bar



|                |                           |                           |
|----------------|---------------------------|---------------------------|
| Bore:          | L                         | T                         |
| Cycling:       | 90°                       | 90°                       |
| Body:          | steel, black oxide        | steel, black oxide        |
| Trunnion ball: | steel, hard chrome plated | steel, hard chrome plated |
| Body seals:    | NBR                       | NBR                       |
| Ball seals:    | POM                       | POM                       |
| Shaft seals:   | NBR                       | NBR                       |

| Connection                   | DN | L   | L1  | B     | H     | H1   | H2    | K   | D1   | D2   | D3   | D4 | T1  | T2   |
|------------------------------|----|-----|-----|-------|-------|------|-------|-----|------|------|------|----|-----|------|
| Body-flange with o-ring-seal | 6  | 95  | 2,5 | Ø 90  | 40,5  | 20,5 | 45,0  | 55  | 6,0  | 12,5 | 6,4  | 11 | 1,8 | 6,8  |
|                              | 10 | 108 | 4,0 | Ø 100 | 50,0  | 25,0 | 54,5  | 65  | 8,0  | 15,0 | 6,4  | 11 | 1,8 | 6,8  |
|                              | 12 | 133 | 6,5 | Ø 120 | 55,0  | 27,5 | 59,5  | 80  | 12,5 | 18,8 | 8,4  | 15 | 1,8 | 9,0  |
|                              | 20 | 190 | 5,0 | Ø 180 | 75,0  | 40,0 | 79,5  | 115 | 19,0 | 30,0 | 17,0 | 26 | 3,0 | 22,0 |
|                              | 25 | 210 | 5,0 | Ø 200 | 81,0  | 43,5 | 85,5  | 135 | 23,5 | 35,0 | 21,0 | 33 | 3,0 | 21,5 |
|                              | 32 | 300 | 5,0 | Ø 290 | 100,0 | 50,0 | 104,5 | 200 | 32,0 | 40,0 | 25,0 | 40 | 3,0 | 26,5 |

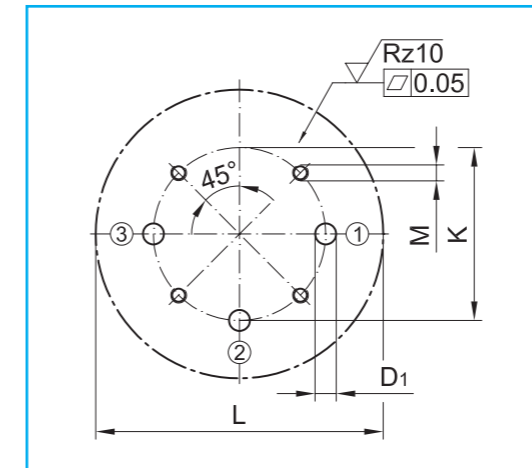
| DN | SW | SW1 | Handle Code | Weight | For Cylinder-head screws DIN EN ISO 4762 (DIN 912) |
|----|----|-----|-------------|--------|--|
| 6  | 24 | 12  | 7           | 1,73   | M 6 - 10.9   |
| 10 | 30 | 14  | 8           | 2,70   | M 6 - 12.9   |
| 12 | 36 | 14  | 8           | 4,58   | M 8 - 12.9   |
| 20 | 50 | 19  | 10          | 12,96  | M16 - 8.8  |
| 25 | 60 | 19  | 10          | 16,60  | M20 - 8.8  |
| 32 | 70 | 19  | 10          | 41,50  | M24 - 8.8  |

| PN   | Article-No. | PN   | Article-No. |
|------|-------------|------|-------------|
| 400  | 206 501     | 400  | 206 561     |
| 400  | 206 502     | 400  | 206 562     |
| 400  | 206 503     | 400  | 206 563     |
| 315  | 206 504     | 315  | 206 564     |
| 315  | 206 505     | 315  | 206 565     |
| 315* | 206 506     | 315* | 206 566     |

| DN | D1   | K   | L   | M   | O-Ring     |
|----|------|-----|-----|-----|------------|
| 6  | 6,0  | 55  | 95  | M 6 | 8,0 x 2,5  |
| 10 | 8,0  | 65  | 108 | M 6 | 10,0 x 2,5 |
| 12 | 12,5 | 80  | 133 | M 8 | 14,0 x 2,5 |
| 20 | 19,0 | 115 | 190 | M16 | 23,5 x 3,5 |
| 25 | 23,5 | 135 | 210 | M20 | 28,1 x 3,5 |
| 32 | 32,0 | 200 | 300 | M24 | 33,5 x 3,5 |

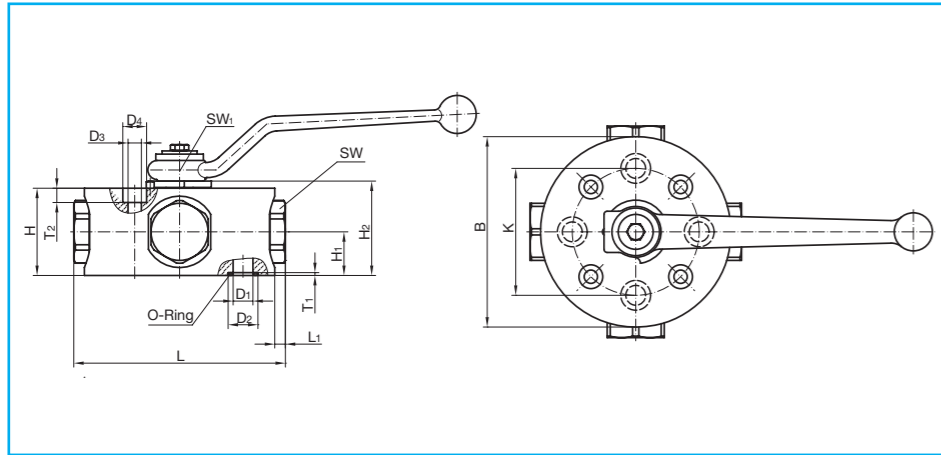
General tolerances  
 DIN ISO 2768  
 Surfaces  
 DIN EN ISO 4287

## Drilling pattern DN 6 - DN 32

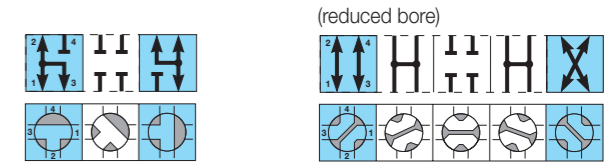


# Multi-way ball valves with trunnion ball

4-way · steel · manifold mounting · DN 6 - DN 32



Handle and o-rings included in delivery  
 For handles refer to "Attachments, accessories"  
 For more porting patterns refer to "Standard- and special porting patterns".  
 \*) can be actuated up to 100 bar manually  
 Actuators and custom orders on request  
 All dimensions subject to change without notice  
 Dimensions in mm  
 Weight in kg  
 Pressure in bar



|                |                           |                           |
|----------------|---------------------------|---------------------------|
| Bore:          | T                         | Double-L                  |
| Cycling:       | 90°                       | 90°                       |
| Body:          | steel, black oxide        | steel, black oxide        |
| Trunnion ball: | steel, hard chrome plated | steel, hard chrome plated |
| Body seals:    | NBR                       | NBR                       |
| Ball seals:    | POM                       | POM                       |
| Shaft seals:   | NBR                       | NBR                       |

| Connection                      | DN | L   | L1  | B     | H     | H1   | H2    | K   | D1   | D2   | D3   | D4 | T1  | T2   | DN | SW | SW1 | Handle Code | Weight | For Cylinder-head screws<br>DIN EN ISO 4762<br>(DIN 912) | PN   | Article-No. | PN   | Article-No. |
|---------------------------------|----|-----|-----|-------|-------|------|-------|-----|------|------|------|----|-----|------|----|----|-----|-------------|--------|--|------|-------------|------|-------------|
| Body-flange with<br>o-ring-seal | 6  | 95  | 2,5 | Ø 90  | 40,5  | 20,5 | 45,0  | 55  | 6,0  | 12,5 | 6,4  | 11 | 1,8 | 6,8  | 6  | 24 | 12  | 7           | 1,73   | M 6 - 10.9   | 400  | 206 521     | 400  | 206 541     |
|                                 | 10 | 108 | 4,0 | Ø 100 | 50,0  | 25,0 | 54,5  | 65  | 8,0  | 15,0 | 6,4  | 11 | 1,8 | 6,8  | 10 | 30 | 14  | 8           | 2,70   | M 6 - 12.9   | 400  | 206 522     | 400  | 206 542     |
|                                 | 12 | 133 | 6,5 | Ø 120 | 55,0  | 27,5 | 59,5  | 80  | 12,5 | 18,8 | 8,4  | 15 | 1,8 | 9,0  | 12 | 36 | 14  | 8           | 4,58   | M 8 - 12.9   | 400  | 206 523     | 400  | 206 543     |
|                                 | 20 | 190 | 5,0 | Ø 180 | 75,0  | 40,0 | 79,5  | 115 | 19,0 | 30,0 | 17,0 | 26 | 3,0 | 22,0 | 20 | 50 | 19  | 10          | 12,96  | M16 - 8.8  | 315  | 206 524     | 315  | 206 544     |
|                                 | 25 | 210 | 5,0 | Ø 200 | 81,0  | 43,5 | 85,5  | 135 | 23,5 | 35,0 | 21,0 | 33 | 3,0 | 21,5 | 25 | 60 | 19  | 10          | 16,60  | M20 - 8.8  | 315  | 206 525     | 315  | 206 545     |
|                                 | 32 | 300 | 5,0 | Ø 290 | 100,0 | 50,0 | 104,5 | 200 | 32,0 | 40,0 | 25,0 | 40 | 3,0 | 26,5 | 32 | 70 | 19  | 10          | 41,50  | M24 - 8.8  | 315* | 206 526     | 315* | 206 546     |

| General tolerances<br>DIN ISO 2768<br>Surfaces<br>DIN EN ISO 4287 | DN | D1   | K   | L   | M   | O-Ring     |
|---|----|------|-----|-----|-----|------------|
|   | 6  | 6,0  | 55  | 95  | M 6 | 8,0 x 2,5  |
|   | 10 | 8,0  | 65  | 108 | M 6 | 10,0 x 2,5 |
|   | 12 | 12,5 | 80  | 133 | M 8 | 14,0 x 2,5 |
|   | 20 | 19,0 | 115 | 190 | M16 | 23,5 x 3,5 |
|   | 25 | 23,5 | 135 | 210 | M20 | 28,1 x 3,5 |
|   | 32 | 32,0 | 200 | 300 | M24 | 33,5 x 3,5 |

## Drilling pattern DN 6 - DN 32

