

Universal and Universal Customised Series

0402 2/2 In-Line Ball Valve, Female BSPP Thread



| | | Nickel-plated brass, NBR | | C | DN | | E | F | F1 | H | H1 | L | L1 | M | kg |
|--|--|--------------------------|--|----|----|-------------|------|----|----|-----|-----|-----|----|-----|-------|
| | | | | 4 | 4 | 0402 04 10 | 8 | - | 14 | 35 | 29 | 44 | 25 | 48 | 0.094 |
| | | | | 7 | 7 | 0402 07 10 | 8 | 19 | 19 | 38 | 31 | 51 | 27 | 48 | 0.166 |
| | | | | 7 | 7 | 0402 07 13 | 12 | 19 | 19 | 38 | 31 | 53 | 28 | 48 | 0.156 |
| | | | | 10 | 10 | 0402 10 17 | 12 | 24 | 24 | 45 | 43 | 59 | 31 | 69 | 0.244 |
| | | | | 13 | 13 | 0402 13 21 | 15 | 27 | 27 | 47 | 44 | 67 | 34 | 69 | 0.292 |
| | | | | 20 | 20 | 0402 20 27 | 16.5 | 32 | 38 | 63 | 54 | 80 | 39 | 108 | 0.655 |
| | | | | 23 | 23 | 0402 23 34 | 19 | 41 | 46 | 67 | 57 | 94 | 47 | 108 | 1.036 |
| | | | | 32 | 32 | 0402 32 42* | 21.5 | 55 | 60 | 97 | 115 | 112 | 59 | 180 | 2.467 |
| | | | | 32 | 32 | 0402 32 49* | 22 | 55 | 60 | 97 | 115 | 120 | 62 | 180 | 2.340 |
| | | | | 40 | 40 | 0402 40 49* | 22 | 55 | 55 | 104 | - | 111 | 55 | 190 | 2.445 |
| | | | | 40 | 40 | 0402 40 48* | 26 | 70 | 70 | 104 | - | 122 | 61 | 190 | 2.614 |

*Models with CE marking
Maximum working pressure: 40 bar

0401 2/2 In-Line Ball Valve, Male/Female BSPP Thread



| | | Nickel-plated brass, NBR | | C | DN | | E | E1 | F | H | H1 | J | L | L1 | M | kg |
|--|--|--------------------------|--|----|----|-------------|------|----|----|----|-----|----|-----|----|-----|-------|
| | | | | 4 | 4 | 0401 04 10 | 8 | 7 | 14 | 35 | 29 | 14 | 45 | 25 | 48 | 0.094 |
| | | | | 5 | 5 | 0401 05 10 | 8 | 7 | 19 | 38 | 31 | 19 | 51 | 27 | 48 | 0.160 |
| | | | | 7 | 7 | 0401 07 13 | 12 | 9 | 19 | 38 | 31 | 19 | 52 | 28 | 48 | 0.150 |
| | | | | 10 | 10 | 0401 10 17 | 12 | 11 | 24 | 45 | 43 | 24 | 58 | 31 | 69 | 0.234 |
| | | | | 13 | 13 | 0401 13 21 | 15 | 12 | 27 | 47 | 44 | 27 | 66 | 34 | 69 | 0.286 |
| | | | | 18 | 18 | 0401 18 27 | 16.5 | 12 | 38 | 63 | 54 | 39 | 79 | 39 | 108 | 0.652 |
| | | | | 23 | 23 | 0401 23 34 | 19 | 15 | 46 | 67 | 57 | 48 | 91 | 47 | 108 | 0.952 |
| | | | | 32 | 32 | 0401 32 42* | 21.5 | 18 | 60 | 97 | 115 | 55 | 113 | 59 | 108 | 2.385 |

*Models with CE marking
Maximum working pressure: 40 bar

0400 2/2 In-Line Ball Valve, Male BSPP Thread



| | | Nickel-plated brass, NBR | | C | DN | | E | F | H | H1 | J | L | L1 | M | kg |
|--|--|--------------------------|--|----|----|------------|----|----|----|----|----|----|----|-----|-------|
| | | | | 4 | 4 | 0400 04 10 | 7 | 14 | 35 | 29 | 14 | 45 | 25 | 48 | 0.094 |
| | | | | 7 | 7 | 0400 07 13 | 9 | 19 | 38 | 31 | 19 | 60 | 36 | 48 | 0.166 |
| | | | | 10 | 10 | 0400 10 17 | 11 | 24 | 45 | 43 | 24 | 70 | 43 | 69 | 0.252 |
| | | | | 13 | 13 | 0400 13 21 | 12 | 27 | 47 | 44 | 27 | 78 | 45 | 69 | 0.324 |
| | | | | 18 | 18 | 0400 18 27 | 12 | 38 | 63 | 54 | 39 | 90 | 50 | 108 | 0.714 |

Maximum working pressure: 40 bar

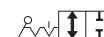
0411 2/2 In-Line Ball Valve with Connections for Use with Steel Tube



| | | Nickel-plated brass, NBR | | ØD | DN | | F | F1 | H | H1 | J | L | L1 | M | kg |
|--|--|--------------------------|--|----|----|------------|----|----|----|----|----|----|----|----|-------|
| | | | | 6 | 4 | 0411 04 06 | 14 | 19 | 38 | 31 | 19 | 76 | 30 | 48 | 0.073 |
| | | | | 8 | 6 | 0411 06 08 | 17 | 19 | 38 | 31 | 19 | 77 | 30 | 48 | 0.095 |
| | | | | 10 | 7 | 0411 07 10 | 19 | 19 | 38 | 31 | 19 | 78 | 31 | 48 | 0.100 |
| | | | | 12 | 10 | 0411 10 12 | 22 | 24 | 45 | 43 | 24 | 85 | 36 | 69 | 0.110 |

Maximum working pressure: 40 bar

0414 2/2 In-Line Ball Valve with Compression Connections



| | | Nickel-plated brass, NBR | | ØD | DN | | F | F1 | H | H1 | J | L | L1 | M | kg |
|--|--|--------------------------|--|----|----|------------|----|----|----|----|----|----|----|----|-------|
| | | | | 6 | 4 | 0414 04 06 | 13 | 19 | 38 | 31 | 19 | 72 | 31 | 48 | 0.177 |
| | | | | 8 | 6 | 0414 06 08 | 14 | 19 | 38 | 31 | 19 | 74 | 30 | 48 | 0.180 |
| | | | | 10 | 7 | 0414 07 10 | 19 | 19 | 38 | 31 | 19 | 78 | 31 | 48 | 0.210 |
| | | | | 12 | 10 | 0414 10 12 | 22 | 24 | 45 | 43 | 24 | 86 | 36 | 69 | 0.308 |

Maximum working pressure: 40 bar

Universal and Universal Customised Series

0446 2/2 In-Line Panel-Mountable Ball Valve, Female BSPP Thread



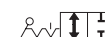
| | | Nickel-plated brass, NBR | | | | | | | | | | | | | |
|---|----|----------------------------|----|----------------------------|----|----|----|----|----|----|----|------|-------|------|-------|
| | | C | DN | | E | F | F1 | H | H1 | H2 | L | L1 | M | ØT | kg |
| | | G1/8 | 4 | 0446 04 10 | 8 | 14 | 22 | 37 | 14 | 12 | 44 | 25 | 48 | 16.5 | 0.112 |
| | | G1/4 | 7 | 0446 07 13 | 12 | 19 | 24 | 45 | 19 | 14 | 53 | 28 | 48 | 20.5 | 0.188 |
| | | G3/8 | 10 | 0446 10 17 | 12 | 24 | 27 | 50 | 21 | 21 | 59 | 31 | 69 | 20.5 | 0.294 |
| G1/2 | 13 | 0446 13 21 | 15 | 27 | 27 | 51 | 23 | 21 | 67 | 34 | 69 | 20.5 | 0.338 | | |
| Maximum working pressure: 20 bar *For G1/8 version, maximum panel thickness = 3 mm | | | | | | | | | | | | | | | |

6402 2/2 In-Line Ball Valve for Screw Fixing, Female BSPP Thread



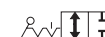
| | | Nickel-plated brass, NBR | | | | | | | | | | | | | | |
|----------------------------------|----|----------------------------|----|----------------------------|------|----|----|----|----|----|-----|----|-------|-------|-------|-------|
| | | C | DN | | E | F | F1 | G | H1 | H2 | L | L1 | M | N | ØT | kg |
| | | G1/8 | 4 | 6402 04 10 | 8 | 14 | 14 | 18 | 18 | 30 | 44 | 25 | 48 | 25 | 4x70 | 0.132 |
| | | G1/4 | 7 | 6402 07 13 | 12 | 19 | 19 | 19 | 24 | 31 | 53 | 28 | 48 | 31 | 5x80 | 0.216 |
| | | G3/8 | 10 | 6402 10 17 | 12 | 24 | 24 | 20 | 30 | 45 | 59 | 31 | 69 | 31 | 5x80 | 0.324 |
| | | G1/2 | 13 | 6402 13 21 | 15 | 27 | 27 | 20 | 34 | 47 | 67 | 34 | 69 | 34 | 6x100 | 0.404 |
| | | G3/4 | 20 | 6402 20 27 | 16.5 | 32 | 38 | 27 | 44 | 52 | 80 | 39 | 108 | 43 | 8x125 | 0.830 |
| G1 | 23 | 6402 23 34 | 19 | 41 | 46 | 27 | 53 | 56 | 94 | 47 | 108 | 51 | 8x125 | 1.290 | | |
| Maximum working pressure: 40 bar | | | | | | | | | | | | | | | | |

6401 2/2 In-Line Ball Valve for Screw Fixing, Male/Female BSPP Thread



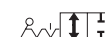
| | | Nickel-plated brass, NBR | | | | | | | | | | | | | | |
|----------------------------------|----|----------------------------|----|----------------------------|----|----|----|----|----|----|----|----|-------|-------|------|-------|
| | | C | DN | | E | E1 | F | G | H1 | H2 | L | L1 | M | N | ØT | kg |
| | | G1/8 | 4 | 6401 04 10 | 8 | 7 | 14 | 18 | 18 | 30 | 45 | 25 | 48 | 25 | 4x70 | 0.127 |
| | | G1/4 | 7 | 6401 07 13 | 12 | 9 | 19 | 19 | 24 | 31 | 52 | 28 | 48 | 31 | 5x80 | 0.212 |
| | | G3/8 | 10 | 6401 10 17 | 12 | 11 | 24 | 20 | 30 | 45 | 58 | 31 | 69 | 31 | 5x80 | 0.306 |
| G1/2 | 13 | 6401 13 21 | 15 | 12 | 27 | 20 | 34 | 47 | 67 | 34 | 69 | 34 | 6x100 | 0.394 | | |
| Maximum working pressure: 40 bar | | | | | | | | | | | | | | | | |

0472 2/2 Right-Angled Ball Valve, Female BSPP Thread



| | | Nickel-plated brass, NBR | | | | | | | | | | | | | |
|----------------------------------|----|----------------------------|------|----------------------------|----|----|----|----|----|----|-----|-------|----|-------|--|
| | | C | DN | | E | F | H | H1 | H2 | J | L | L1 | M | kg | |
| | | G1/8 | 4 | 0472 04 10 | 8 | 14 | 35 | 29 | 18 | 14 | 34 | 25 | 48 | 0.096 | |
| | | | 6 | 0472 06 10 | 8 | 19 | 38 | 31 | 20 | 22 | 37 | 27 | 48 | 0.183 | |
| | | G1/4 | 6 | 0472 06 13 | 12 | 19 | 38 | 31 | 24 | 22 | 38 | 28 | 48 | 0.191 | |
| | | G3/8 | 9 | 0472 09 17 | 12 | 24 | 45 | 43 | 27 | 25 | 46 | 31 | 69 | 0.260 | |
| | | G1/2 | 12 | 0472 12 21 | 15 | 27 | 47 | 44 | 33 | 29 | 49 | 34 | 69 | 0.312 | |
| G3/4 | 18 | 0472 18 27 | 16.5 | 38 | 59 | 51 | 40 | 39 | 60 | 39 | 108 | 0.704 | | | |
| G1 | 23 | 0472 23 34 | 19 | 46 | 63 | 55 | 47 | 48 | 72 | 47 | 108 | 1.062 | | | |
| Maximum working pressure: 20 bar | | | | | | | | | | | | | | | |

0471 2/2 Right-Angled Ball Valve, Male/Female BSPP Thread



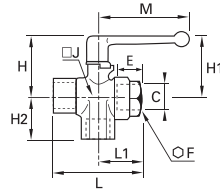
| | | Nickel-plated brass, NBR | | | | | | | | | | | | | |
|----------------------------------|----|----------------------------|------|----------------------------|----|----|----|----|----|----|----|-----|-------|----|-------|
| | | C | DN | | E | E1 | F | H | H1 | H2 | J | L | L1 | M | kg |
| | | G1/8 | 4 | 0471 04 10 | 8 | 7 | 14 | 35 | 29 | 19 | 14 | 34 | 25 | 48 | 0.096 |
| | | | 6 | 0471 06 10 | 8 | 7 | 19 | 38 | 31 | 22 | 22 | 37 | 27 | 48 | 0.182 |
| | | G1/4 | 6 | 0471 06 13 | 12 | 9 | 19 | 38 | 31 | 25 | 22 | 38 | 28 | 48 | 0.187 |
| | | G3/8 | 9 | 0471 09 17 | 12 | 11 | 24 | 45 | 43 | 28 | 25 | 46 | 31 | 69 | 0.256 |
| | | G1/2 | 12 | 0471 12 21 | 15 | 12 | 27 | 47 | 44 | 32 | 29 | 49 | 34 | 69 | 0.300 |
| G3/4 | 18 | 0471 18 27 | 16.5 | 12 | 38 | 59 | 51 | 37 | 39 | 60 | 39 | 108 | 0.682 | | |
| G1 | 23 | 0471 23 34 | 19 | 15 | 46 | 63 | 55 | 44 | 48 | 72 | 47 | 108 | 1.020 | | |
| Maximum working pressure: 20 bar | | | | | | | | | | | | | | | |

Universal and Universal Customised Series

0482 3/3 Right-Angle Ported Ball Valve, Female BSPP Thread

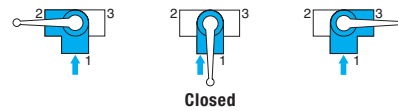


Nickel-plated brass, NBR



| | C | DN | | E | F | H | H1 | H2 | J | L | L1 | M | kg |
|------|----|----|------------|------|----|----|----|----|----|----|----|-----|-------|
| G1/8 | 4 | | 0482 04 10 | 8 | 14 | 35 | 29 | 18 | 14 | 44 | 25 | 48 | 0.103 |
| G1/4 | 6 | | 0482 06 13 | 12 | 19 | 38 | 31 | 24 | 22 | 53 | 28 | 48 | 0.200 |
| G3/8 | 9 | | 0482 09 17 | 12 | 24 | 45 | 43 | 27 | 25 | 59 | 31 | 69 | 0.284 |
| G1/2 | 12 | | 0482 12 21 | 15 | 27 | 47 | 44 | 33 | 29 | 67 | 34 | 69 | 0.346 |
| G3/4 | 18 | | 0482 18 27 | 16.5 | 38 | 59 | 51 | 40 | 39 | 80 | 39 | 108 | 0.742 |
| G1 | 23 | | 0482 23 34 | 19 | 46 | 63 | 55 | 47 | 48 | 94 | 47 | 108 | 1.160 |

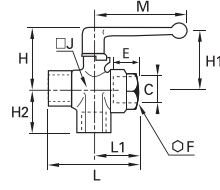
Maximum working pressure: 20 bar



0483 3/3 Right-Angle Ported Ball Valve without Closed Position, Female BSPP Thread

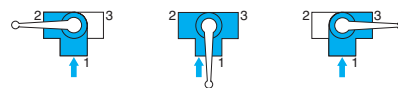


Nickel-plated brass, NBR



| | C | DN | | E | F | H | H1 | H2 | J | L | L1 | M | kg |
|------|----|----|------------|------|----|----|----|----|----|----|----|-----|-------|
| G1/8 | 4 | | 0483 04 10 | 8 | 14 | 35 | 29 | 18 | 14 | 44 | 25 | 48 | 0.102 |
| G1/4 | 6 | | 0483 06 13 | 12 | 19 | 38 | 31 | 24 | 22 | 53 | 28 | 48 | 0.196 |
| G3/8 | 9 | | 0483 09 17 | 12 | 24 | 45 | 43 | 27 | 25 | 59 | 31 | 69 | 0.278 |
| G1/2 | 12 | | 0483 12 21 | 15 | 27 | 47 | 44 | 33 | 29 | 67 | 34 | 69 | 0.340 |
| G3/4 | 18 | | 0483 18 27 | 16.5 | 38 | 59 | 51 | 40 | 39 | 80 | 39 | 108 | 0.716 |
| G1 | 23 | | 0483 23 34 | 19 | 46 | 63 | 55 | 47 | 48 | 94 | 47 | 108 | 1.066 |

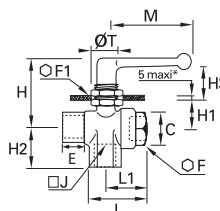
Maximum working pressure: 20 bar



0448 3/2 Panel-Mountable Right-Angled Ball Valve, Female BSPP Thread



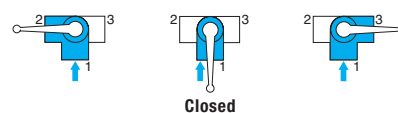
Nickel-plated brass, NBR



| | C | DN | | E | F | F1 | H | H1 | H2 | H3 | J | L | L1 | M | ØT | kg |
|------|----|----|------------|----|----|----|----|----|----|----|----|----|----|----|------|-------|
| G1/8 | 4 | | 0448 04 10 | 8 | 14 | 22 | 37 | 14 | 18 | 12 | 14 | 44 | 25 | 48 | 16.5 | 0.126 |
| G1/4 | 6 | | 0448 06 13 | 12 | 19 | 24 | 45 | 19 | 24 | 14 | 22 | 53 | 28 | 48 | 20.5 | 0.230 |
| G3/8 | 9 | | 0448 09 17 | 12 | 24 | 27 | 50 | 21 | 27 | 21 | 25 | 59 | 31 | 69 | 20.5 | 0.328 |
| G1/2 | 12 | | 0448 12 21 | 15 | 27 | 27 | 51 | 23 | 33 | 21 | 29 | 67 | 34 | 69 | 20.5 | 0.392 |

Maximum working pressure: 20 bar

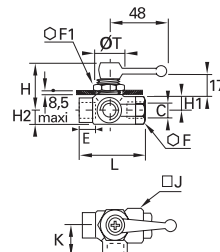
*For G1/8 version: maximum panel thickness = 3 mm



0452 3/2 Panel-Mountable Equal Plane Ball Valve, Female BSPP Thread

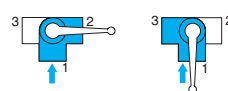


Nickel-plated brass, NBR



| | C | DN | | E | F | F1 | H | H1 | H2 | J | K | L | ØT | kg |
|------|---|----|------------|----|----|----|----|----|----|----|----|----|----|-------|
| G1/8 | 4 | | 0452 04 10 | 8 | 14 | 22 | 39 | 10 | 8 | 16 | 18 | 25 | 19 | 0.130 |
| G1/4 | 6 | | 0452 06 13 | 12 | 19 | 24 | 40 | 11 | 11 | 23 | 24 | 28 | 20 | 0.206 |

Maximum working pressure: 20 bar



Ball Valves, Universal Series

This range of valves has patented **seal wear compensating** technology for **reliable** and **durable** sealing, **protecting** any system whether under pressure or **vacuum**.

Product Advantages

Durability & Reliability

- Automatic seal wear compensation for long-term reliability
- Robust, corrosion-resistant materials
- 100% leak-tested in production
- Date coding to guarantee quality and traceability

Versatility & Performance

- Ideal for ensuring the performance of pneumatic circuits
- Customised valves for all special applications
- Unequalled performance under vacuum
- Smooth operation thanks to self-lubricating seals
- Large range of working pressures and temperatures
- Lever can be repositioned and replaced
- Many configurations to satisfy all system requirements



Applications

- Pneumatics
- Vacuum
- Transportation
- Packaging
- Textile
- Sawmill
- Rubber & Plastics

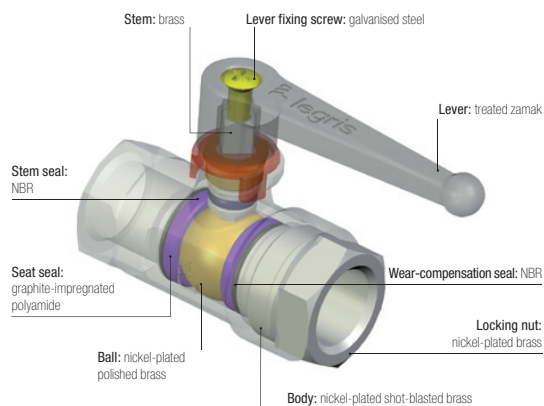
Technical Characteristics

| | |
|----------------------------|-------------------|
| Compatible Fluids | Industrial fluids |
| Working Pressure | Vacuum to 40 bar |
| Working Temperature | -20°C to +80°C |

| | | | | | | | | |
|---------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| Tightening Torques | Threads | G1/8 | G1/4 | G3/8 | G1/2 | G3/4 | G1 | |
| | daN.m | 0.10 to 0.20 | 0.10 to 0.20 | 0.15 to 0.25 | 0.20 to 0.35 | 0.50 to 0.70 | 0.50 to 0.70 | |
| | Threads | G1¼ | G1½ | G2 | | | | |
| | daN.m | 0.40 to 0.60 | 0.80 to 1.20 | 0.80 to 1.20 | | | | |

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.
Guaranteed for use with a vacuum of 755 mm Hg (99 % vacuum).

Component Materials



Silicone-free

Regulations

DI: 97/23/EC (module PED A - diameters greater than 25 mm)
 DI: 2006/42/EC (Machinery Directive)
 DI: 2002/95/EC (RoHS)
 RG: 1907/2006 (REACH)

Universal Series

Installation Options

Lockable Valves

Our lockable ball valves have been developed in order to prevent potentially dangerous consequences caused by unintended operation. Lockable in different positions, this range meets international safety requirements, such as ISO 4414.

The valves are lockable:

- at one point: models 0432 and 0439
- at three points: models 0437 and 0438

Vented Valves

To stop fluid circulation and vent the circuit, 2 venting systems are provided:

- with threaded exhaust, to allow discharge of downstream media
- with pin-hole vent, for applications with no special discharge requirement

Fluid flow direction is indicated by an arrow on the valve body.

Mountable Valves

On steel plate:

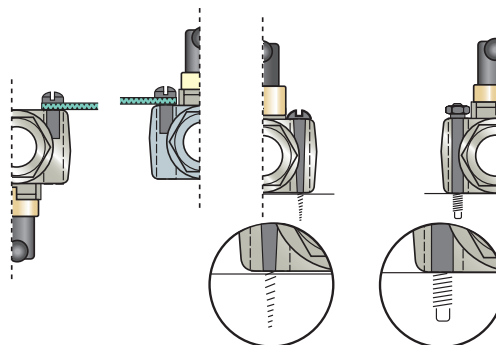
- bulkhead fixing
- complete valve below bulkhead

On frame:

- assemble with bolts

On wooden panel:

- assemble with woodscrews



Universal Customised Valve Series

Based on the standard components of the universal series, this range allows the valve to be adapted to specific needs. There are 6 product versions available on request.

Product Codes

| | | |
|------------|----------------------|--------------------|
| Valve type | 0402 04 10 22 | |
| 0400 | | Thread |
| 0401 | | |
| 0402 | 04 = 4 mm | 10 = 1/8" |
| ... | 05 = 5 mm | 13 = 1/4" |
| | ... | ... |
| | 40 = 40 mm | 48 = 2" |
| | | Suffix |
| | | 20 = blue/red |
| | | 22 = green/blue |
| | | 26 = yellow/yellow |
| | | 27 = blue/green |
| | | 30 = white/red |
| | | 32 = white/green |

Identification

Each series may be easily identified by a colour marking on the lever.



Suffix Specification

| Identification | | Body | | Lever | | | Ball | | Stem and Wear-Compensation Seals | | | Seat Seals | | | Application Examples |
|--------------------|---------------------------|---------------------|------------------------------|----------|---------------------|------------------------------|------------------------------|------------------------------|----------------------------------|-----|------------|------------------------------|-------------|------------|---|
| Suffix on the body | Colour bands on the lever | Nickel-plated brass | Chemical nickel-plated brass | Standard | Nickel-plated brass | Chemical nickel-plated brass | Nickel-plated polished brass | Chemical nickel-plated brass | EPDM | FKM | PTFE white | Rilsan: graphite-impregnated | Filled PTFE | PTFE white | |
| 20 | | • | | • | | | • | | | • | | • | | | Hydrocarbons |
| 22 | | • | | • | | | | • | | • | | | • | | Industrial fluids and high temperature |
| 26* | | • | | | • | | | • | | | • | olive | | • | Corrosive liquids or high temperature |
| 27 | | | • | | | • | | • | | • | | | • | | Industrial fluids and/or harsh environments |
| 30** | | • | | • | | | • | | • | | | • | | | Gaseous oxygen circuits |
| 32 | | • | | • | | | | • | • | | | | • | | Water and steam circuits |

*degreased **oxygen-compatible grease

A usage chart in this chapter shows which type of valve to use according to the fluid being conveyed.

Ball Valves: Usage Chart

The chart below shows the compatibility between valves and fluids along with their pressure and temperature characteristics.

Certain models have a maximum working pressure which differs from that given in this table. In this case, the pressure is shown in the heading for the model number in question.

N.B.: Above 32 mm or 1¼" diameters, divide the maximum pressure by 2.

If the fluid you are using is not shown in this chart, please contact us.

| Chemical Description | Maximum Pressure (bar) | Temperature °C | | Universal and Light Series | Standard Series | DVGW series | Customised Series | | | | | | | |
|--------------------------------------|------------------------|----------------|---------|----------------------------|-----------------|-------------|-------------------|----|----|----|----|----|--|---|
| | | Min. | Max. | | | | 20 | 22 | 26 | 27 | 30 | 32 | | |
| "Aromatic" hydrocarbons | 20 | -20 | +60 | | | | | ● | | | | | | |
| Acetone and other ketones | 20 | -20 | +60 | | | | | | | | | | | ● |
| Acetophenone | 20 | -20 | +60 | | | | | | | | | | | ● |
| Acetylene - Acetone | 20 | -20 | +60 | | | | | | | | | | | ● |
| Acetylene (gas) | 20 | -20 | +60 | ● | ● | ● | | | | | | | | |
| Alcohol (100%) | 20 | -20 | Boiling | | | | | | | | | | | ● |
| Aluminium (liquid suspension, thick) | 40 | -20 | +90 | ● | ● | ● | | | | | | | | |
| Amyl alcohol | 20 | -20 | Boiling | | | | | | | | | | | ● |
| Animal fats, greases | 20 | +5 | +200 | | ● | ● | | | ● | | | | | |
| Antifreeze or glycol (diluted) | 40 | -20 | +40 | ● | ● | ● | | | | | | | | |
| Argon (gas) Ar | 20 | -20 | +60 | ● | ● | ● | | | | | | | | |
| Barium - Hydroxide | 20 | -20 | +40 | | | | | | | | | | | ● |
| Benzaldehyde | 20 | -20 | +60 | | | | | | | | | | | ● |
| Benzene | 20 | -20 | +60 | | | | | ● | | | | | | |
| Benzyl alcohol | 20 | -20 | Boiling | | | | | ● | | | | | | |
| Borax (pastes or solutions) | 20 | -20 | +60 | | | | | | | | | | | ● |
| Brake fluids (automobile) | 20 | -20 | +90 | | | | | | | | | | | ● |
| Bromochlorotrifluoroethane | 20 | -20 | +60 | | ● | ● | | | ● | | | | | |
| Butadiene (hydrocarbon) | 20 | -20 | +60 | | | | | | | | ● | | | |
| Butane | 20 | -20 | +60 | ● | ● | ● | | | | | | | | |
| Butanol | 20 | -20 | Boiling | | | | | ● | | | | | | |
| Butyl alcohol | 20 | -20 | Boiling | | | | | ● | | | | | | |
| Butylene (hydrocarbon) | 20 | -20 | +60 | | | | | ● | | | | | | |
| Carbon dioxide gas CO ₂ | 40 | -20 | +60 | ● | ● | | | | | | | | | |
| Castor oil | 40 | -20 | +90 | ● | ● | | | | | | | | | |
| Compressed air | 20 | -25 | +180 | | | | | ● | | | | | | |
| Creosotes | 20 | -20 | +60 | | | | | | | | ● | | | |
| Cresols | 20 | -20 | +60 | | | | | | | | ● | | | |
| Crude oil | 20 | -20 | +40 | | | | ● | | | | | | | |
| Cutting oil | 40 | -20 | +90 | ● | ● | | | | | | | | | |
| Decalin (hydrocarbon, solvent) | 20 | -20 | +60 | | | | | | | | ● | | | |
| Detergents (solutions) | 20 | -20 | +100 | | | | | | | | | | | ● |
| Diacetone alcohol | 20 | -20 | Boiling | | | | | | | | | | | ● |
| Diesel oils | 40 | -20 | +90 | ● | ● | | | | | | | | | |
| Di-Esters | 20 | -20 | +90 | | | | | ● | | | | | | |
| Di-Isobutylene | 20 | -20 | +60 | | | | | | | | ● | | | |
| Di-Pentane | 20 | -20 | +60 | | | | | ● | | | | | | |

Ball Valves
Industrial Valves

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.

Ball Valves: Usage Chart

| Chemical Description | Max. Pressure (bar) | Temperature °C | | Universal and Light Series | Standard Series | DVGW Series | Customised Series | | | | | | |
|--|---------------------|----------------|---------|----------------------------|-----------------|-------------|-------------------|----|----|----|----|----|---|
| | | Min. | Max. | | | | 20 | 22 | 26 | 27 | 30 | 32 | |
| Di-Pentene (solvents, varnish) | 20 | -20 | +60 | | | | | ● | | | | | |
| Di-Phenyl-Oxide (thin detergents) | 20 | -20 | +60 | | | | | | | | ● | | |
| Distilled water | 40 | | +90 | ● | ● | ● | | | | | | | |
| Edible fats | 20 | +5 | +200 | | ● | | | | | ● | | | |
| Edible oils | 20 | +5 | +200 | | ● | | | | | ● | | | |
| Erytrene (see Butadiene) | 20 | -20 | +60 | | | | | | | | ● | | |
| Ethane (gas) CH ₂ CH ₃ | 20 | -20 | +60 | ● | ● | | | | | | | | |
| Ethane (hydrocarbon gas) | 20 | -20 | +60 | | | | | | | | ● | | |
| Ethyl alcohol | 20 | -20 | +60 | | | | | | | | | | ● |
| Ethylene glycol (antifreeze) - see Glycols | 20 | -20 | +120 | | | | | | | | | | ● |
| Fatty alcohols | 20 | -20 | Boiling | | | | | ● | | | | | |
| Fuel oils | 40 | -20 | +40 | ● | ● | ● | | | | | | | |
| Fuels-Diesels | 40 | -20 | +40 | ● | ● | | | | | | | | |
| Gaseous oxygen (ambient air) | 20 | -20 | +40 | | | | | | | | | ● | |
| Glycerine | 20 | -20 | +40 | ● | ● | | | | | | | | |
| Glycol (for antifreeze, lubricants) | 40 | -20 | +40 | ● | ● | | | | | | | | |
| Graphite in suspension in water, oils and greases | 40 | -20 | +90 | ● | ● | | | | | | | | |
| Greases (from petroleum) | 40 | -20 | +90 | ● | ● | | | | | | | | |
| Helium (gas) | 20 | -20 | +60 | | | | | | | | | ● | |
| Heptanal | 20 | -20 | +50 | ● | ● | | | | | | | | |
| Hexane (solvent) | 20 | -20 | +60 | | | | | | | | | ● | |
| Hydraulic oils (petroleum-based) | 40 | -20 | +90 | ● | ● | | | | | | | | |
| Hydrogen (gas) | 20 | -20 | +60 | | | | | | | | | ● | |
| Inks | 20 | -20 | +60 | | | | | | | | ● | | |
| Insecticides | 20 | 0 | +40 | ● | ● | ● | | | | | | | |
| Iso-Butane (aliphatic hydrocarbon) | 20 | -20 | +60 | | | | | | | | ● | | |
| Iso-Octane | 20 | -20 | +60 | | | | | | | | ● | | |
| Isopropyl alcohol | 20 | -20 | Boiling | | | | | | | | | | ● |
| Krypton (gas) Kr | 20 | -20 | +60 | ● | ● | ● | | | | | | | |
| Light water | 40 | | +80 | ● | ● | ● | | | | | | | |
| Lighting gas | 20 | -20 | +40 | | | ● | | | | | | | |
| Methane (gas) CH ₄ | 20 | -20 | +60 | ● | ● | ● | | | | | | | |
| Methanol | 20 | -20 | Boiling | | | | | | | | | | ● |
| Methyl alcohol | 20 | -20 | Boiling | | | | | | | | | | ● |
| Methylated spirit | 40 | -20 | +40 | ● | ● | ● | | | | | | | |
| Mineral oils | 40 | -20 | +90 | ● | ● | | | | | | | | |
| Natural gas | 20 | -20 | +40 | | | ● | | | | | | | |
| Natural waxes (vegetable, beeswax, carnauba, Chinese, lignite) | 40 | -20 | +90 | | | | | | | | ● | | |
| Neatsfoot oil | 40 | -20 | +90 | ● | ● | ● | | | | | | | |
| Neon (Gas) Ne | 20 | -20 | +60 | ● | ● | ● | | | | | | | |
| Nitrogen (gas) N ² | 40 | -20 | +90 | ● | ● | ● | | | | | | | |
| Oil (petroleum-based) and water emulsions | 40 | -20 | +90 | ● | ● | ● | | | | | | | |

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