



## Ball Valve, manually-operated

- Application for aggressive media
- High flow-rate
- Safe blocked union nuts with Dual Block® Technology



Product variants described in the data sheet may differ from the product presentation and description.

### Can be combined with

|   |  |   |
|---|--|---|
|   | <b>Type 2052</b><br>Pneumatic rotary actuator                            | ▶ |
|  | <b>Type 2051</b><br>Pneumatic rotary actuator                            | ▶ |
|  | <b>Type 3003</b><br>Electrical Rotary Actuator - On/Off and control      | ▶ |
|  | <b>Type 3004</b><br>Explosion Proof Rotary Actuator - On/Off and control | ▶ |
|  | <b>Type 3005</b><br>Electric Rotary Actuator - On/Off and Control        | ▶ |
|  | <b>Type 1061</b><br>Accessory for pneumatic rotary actuators             | ▶ |

### Type description

2/2- and 3/2-way ball valves with manual override in plastic for separating medium flow. Different body versions and materials can be ordered to suit various applications. Special feature: The ball valves are equipped with the so-called Dual Block® Technology. This system serves as a safety device for the union nuts. It prevents that the installed valve becomes loose during the operation.

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## 1. General technical data

### Product properties

#### Materials

|      |                                      |
|------|--------------------------------------|
| Body | PVC-U, PP-H (PVDF, PVC-C on request) |
| Seal | PTFE/EPDM, PTFE/FKM                  |

### Performance data

#### Operating pressure (max.)

|                    |            |
|--------------------|------------|
| PP-H               | 0...10 bar |
| PVC-U, PVDF, PVC-C | 0...16 bar |

see also „3.1. Pressure temperature diagram“ on page 4

### Medium data

#### Media temperature

|       |                 |
|-------|-----------------|
| PVC-U | 0 °C...+60 °C   |
| PP-H  | +10 °C...+80 °C |
| PVDF  | 0 °C...+120 °C  |
| PVC-C | 0 °C...+100 °C  |

### Product connections

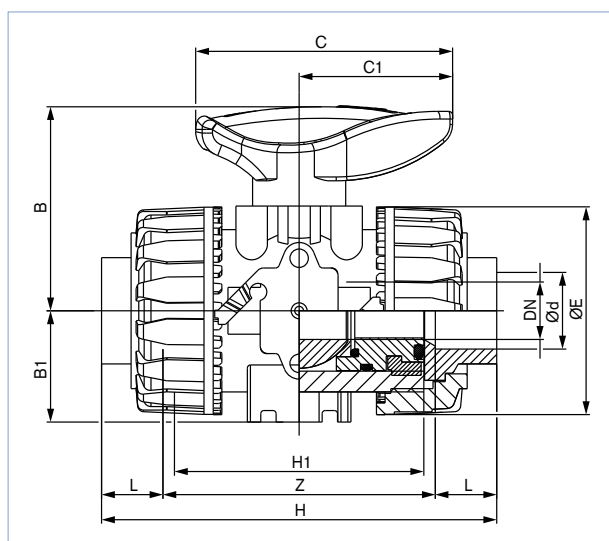
#### Port connection

|               |                                   |
|---------------|-----------------------------------|
| True union    | PVC-U                             |
| Fusion spigot | PP-H, (PVDF and PVC-C on request) |

## 2. Dimensions

### 2.1. 2/2 way version

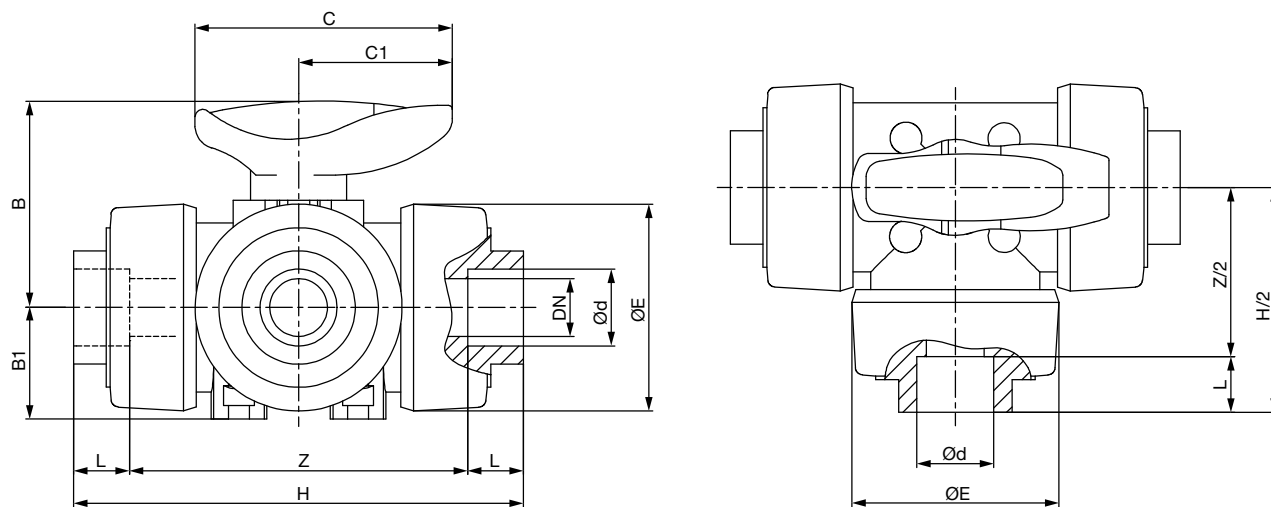
Note: Angaben in mm.



| Ød  | DN  | L  | Z   | H   | H1  | ØE  | B    | B1   | C   | C1  | Weight [g] |
|-----|-----|----|-----|-----|-----|-----|------|------|-----|-----|------------|
| 16  | 10  | 14 | 75  | 103 | 65  | 54  | 54   | 29   | 67  | 40  | 215        |
| 20  | 15  | 16 | 71  | 103 | 65  | 54  | 54   | 29   | 67  | 40  | 205        |
| 25  | 20  | 19 | 77  | 115 | 70  | 65  | 65   | 34.5 | 85  | 49  | 330        |
| 32  | 25  | 22 | 84  | 128 | 78  | 73  | 69.5 | 39   | 85  | 49  | 438        |
| 40  | 32  | 26 | 94  | 146 | 88  | 86  | 82.5 | 46   | 108 | 64  | 693        |
| 50  | 40  | 31 | 102 | 164 | 93  | 98  | 89   | 52   | 108 | 64  | 925        |
| 63  | 50  | 38 | 123 | 199 | 111 | 122 | 108  | 62   | 134 | 76  | 1577       |
| 75  | 65  | 44 | 147 | 235 | 133 | 164 | 164  | 87   | 225 | 175 | 4380       |
| 90  | 80  | 51 | 168 | 270 | 149 | 203 | 177  | 105  | 327 | 272 | 7200       |
| 110 | 100 | 61 | 186 | 308 | 167 | 238 | 195  | 129  | 385 | 330 | 11141      |

### 2.2. 3/2 way version

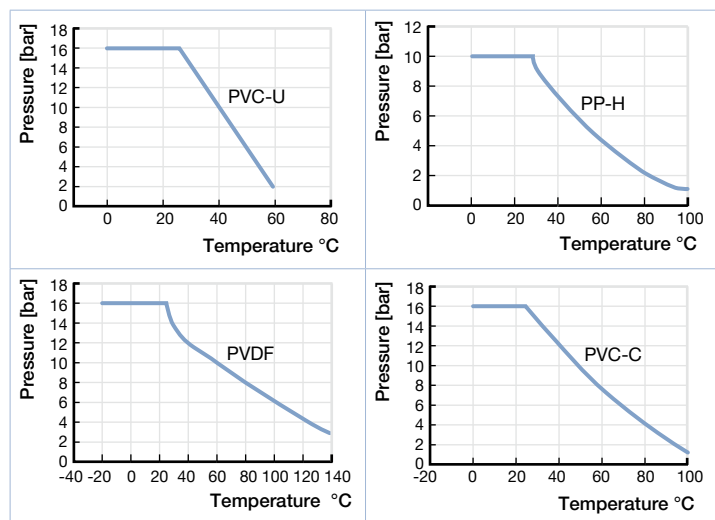
**Note:**  
Dimensions in mm



| Ød | DN | L  | Z     | H     | ØE  | B    | B1   | C   | C1 | Weight [g] |
|----|----|----|-------|-------|-----|------|------|-----|----|------------|
| 16 | 10 | 14 | 90    | 118   | 54  | 54   | 29   | 67  | 40 | 310        |
| 20 | 15 | 16 | 86    | 118   | 54  | 54   | 29   | 67  | 40 | 310        |
| 25 | 20 | 19 | 107   | 145   | 65  | 65   | 34.5 | 85  | 49 | 550        |
| 32 | 25 | 22 | 116   | 160   | 73  | 69.5 | 39   | 85  | 49 | 790        |
| 40 | 32 | 26 | 136.5 | 188.5 | 86  | 82.5 | 46   | 108 | 64 | 1275       |
| 50 | 40 | 31 | 157   | 219   | 98  | 89   | 52   | 108 | 64 | 1660       |
| 63 | 50 | 38 | 190.5 | 266.5 | 122 | 108  | 62   | 134 | 76 | 2800       |

### 3. Performance specifications

#### 3.1. Pressure temperature diagram



DTS 1000090181 EN Version: | Status: RL (released | freigegeben | validé) printed: 20.11.2019

### 3.2. Torques

| DN  | Port connections Ø [mm] | 2 way plastic ball valves (DN10...DN50) | Torques [Nm]                             |      |     | 3 way plastic ball valves (DN15...DN50) |
|-----|-------------------------|---|--|------|-----|---|
|     |                         |   | 2 way plastic ball valves (DN65...DN100) |      |     |   |
|     |                         |   | PN16                                     | PN10 | PN6 |   |
| 10  | 16                      | 3                                       | –  | –    | –   | –                                       |
| 15  | 20                      | 3                                       | –  | –    | –   | 3                                       |
| 20  | 25                      | 4                                       | –  | –    | –   | 5                                       |
| 25  | 32                      | 6                                       | –  | –    | –   | 6                                       |
| 32  | 40                      | 7                                       | –  | –    | –   | 12                                      |
| 40  | 50                      | 10                                      | –  | –    | –   | 14                                      |
| 50  | 63                      | 16                                      | –  | –    | –   | 23                                      |
| 65  | 75                      | –                                       | 30                                       | 25   | 20  | –                                       |
| 80  | 90                      | –                                       | 45                                       | 35   | 25  | –                                       |
| 100 | 110                     | –                                       | 65                                       | 55   | 40  | –                                       |


## 4. Product accessories

### 4.1. Adaption flange

Adaption flange in PP-GR: used for automation of ball valves with pneumatic or electric rotary actuators.



### 4.2. Distance plate kit – used for wall fixing of the plastic ball valves

| Description   | Components of the kit  |
|---|--|
| Distance plate kit<br> | <ul style="list-style-type: none"> <li>• Distance plate (GRP reinforced PP)</li> <li>• Screw (Stainless Steel)</li> <li>• Threaded bush (Brass)</li> </ul> |

## 5. Ordering information

### 5.1. Bürkert eShop – Easy ordering and quick delivery

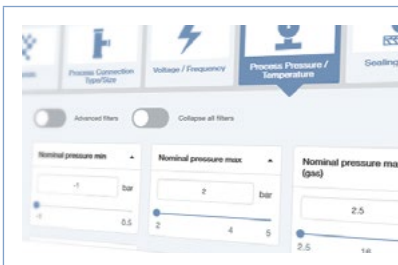


#### Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

### 5.2. Bürkert product filter



#### Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

### 5.3. Ordering chart

#### 2/2 way ball valve

##### Note:










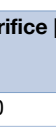






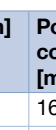












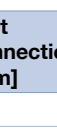


Further versions on request.

| Orifice [mm]                   | Port connection Ø [mm] | K <sub>vs</sub> value for water [m <sup>3</sup> /h] | Pressure range PVC-U, PVDF, PCV-C [bar] | Pressure range PP-H [bar] | Article no. true union PVC-U | Article no. fusion spigot PP-H |
|--------------------------------|------------------------|---|---|---------------------------|------------------------------|--------------------------------|
| <b>Seal material PTFE/EPDM</b> |                        |   |   |                           |                              |                                |
| 10                             | 16                     | 4.8   | 0...16                                  | 0...10                    | 176462                       | 176469                         |
| 15                             | 20                     | 12  | 0...16                                  | 0...10                    | 176463                       | 176470                         |
| 20                             | 25                     | 23  | 0...16                                  | 0...10                    | 176464                       | 176471                         |
| 25                             | 32                     | 46  | 0...16                                  | 0...10                    | 176465                       | 176472                         |
| 32                             | 40                     | 66  | 0...16                                  | 0...10                    | 176466                       | 176473                         |
| 40                             | 50                     | 105   | 0...16                                  | 0...10                    | 176467                       | 176474                         |
| 50                             | 63                     | 204   | 0...16                                  | 0...10                    | 176468                       | 176475                         |
| 65                             | 75                     | 315   | 0...16                                  | 0...10                    | 202660                       | 252587                         |
| 80                             | 90                     | 426   | 0...16                                  | 0...10                    | 185991                       | 238514                         |
| 100                            | 110                    | 570   | 0...16                                  | 0...10                    | 202750                       | 254604                         |
| <b>Seal material PTFE/FKM</b>  |                        |   |   |                           |                              |                                |
| 10                             | 16                     | 4.8   | 0...16                                  | 0...10                    | 176476                       | 176483                         |
| 15                             | 20                     | 12  | 0...16                                  | 0...10                    | 176477                       | 176484                         |
| 20                             | 25                     | 23  | 0...16                                  | 0...10                    | 176478                       | 176485                         |
| 25                             | 32                     | 46  | 0...16                                  | 0...10                    | 176479                       | 176486                         |
| 32                             | 40                     | 66  | 0...16                                  | 0...10                    | 176480                       | 176487                         |
| 40                             | 50                     | 105   | 0...16                                  | 0...10                    | 176481                       | 176488                         |
| 50                             | 63                     | 204   | 0...16                                  | 0...10                    | 176482                       | 176489                         |
| 65                             | 75                     | 315   | 0...16                                  | 0...10                    | 182519                       | on request                     |
| 80                             | 90                     | 426   | 0...16                                  | 0...10                    | 185855                       | on request                     |
| 100                            | 110                    | 570   | 0...16                                  | 0...10                    | 205537                       | on request                     |

## 3/2 way ball valve PVC-U

## Note:

Further versions on request.













| Switched position   | Orifice [mm] | Port connection Ø [mm] | K <sub>vs</sub> value for water [m³/h] | Pressure range [bar] | Article no. seal material EPDM   | Article no. seal material FKM  |
|---|--------------|------------------------|--|----------------------|--|--|
| T1<br><br>0° | 10           | 16                     | 1.5                                    | 0...16               | 209890    | 186022  |
|   | 15           | 20                     | 2.1                                    | 0...16               | 209891  | 186023  |
|   | 20           | 25                     | 5.7                                    | 0...16               | 209892  | 186024  |
|   | 25           | 32                     | 8.4                                    | 0...16               | 209893  | 186025  |
| <br>90°      | 32           | 40                     | 16.2                                   | 0...16               | 209894  | 186026  |
|   | 40           | 50                     | 19.8                                   | 0...16               | 209895  | 186027  |
|   | 50           | 63                     | 37.2                                   | 0...16               | 209896  | 186028  |
| L4<br><br>0° | 10           | 16                     | 2.8                                    | 0...16               | 209897  | 186015  |
|   | 15           | 20                     | 4.3                                    | 0...16               | 209898  | 186016  |
|   | 20           | 25                     | 9.0                                    | 0...16               | 209899  | 186017  |
|   | 25           | 32                     | 15.9                                   | 0...16               | 209900  | 186018  |
|   | 32           | 40                     | 28.5                                   | 0...16               | 202689  | 186019  |
|   | 40           | 50                     | 37.2                                   | 0...16               | 209901  | 186020  |
| <br>90°      | 50           | 63                     | 67.2                                   | 0...16               | 209902  | 186021  |

## 5.4. Ordering chart accessories



## Adaption flange in PP-GR

## Note:

Adaption flange in PP-GR: used for automation of ball valves with pneumatic or electric rotary actuators.

| For ball valve orifice [mm] | For port connection Ø [mm] | ISO 5211 Flange | Square [mm] | Double square [mm] | Article no.  |
|-----------------------------|----------------------------|-----------------|-------------|--------------------|--|
| 10                          | 16                         | F03/04          | 11          | –                  | 669974    |
|                             |                            | F03/04          | –           | 14                 | 669980    |
| 15                          | 20                         | F03/04          | 11          | –                  | 669974    |
|                             |                            | F03/04          | –           | 14                 | 669980    |
| 20                          | 25                         | F03/05          | 11          | –                  | 669975    |
|                             |                            | F03/05          | –           | 14                 | 669981    |
| 25                          | 32                         | F03/05          | 11          | –                  | 669976   |
|                             |                            | F03/05          | –           | 14                 | 669982  |
| 32                          | 40                         | F05/07          | 14          | –                  | 669977  |
| 40                          | 50                         | F05/07          | 14          | –                  | 669978  |
| 50                          | 63                         | F05/07          | 14          | –                  | 669979  |
| 65                          | 75                         | F05/07          | 14          | –                  | 672134  |
| 80                          | 90                         |                 |             |                    |  |
| 100                         | 110                        |                 |             |                    |  |

## Distance plate kit – used for wall fixing of the plastic ball valves

| For ball valve orifice [mm] | For port connection Ø [mm] | Article no.  |
|-----------------------------|----------------------------|--|
| 10 – 25                     | 16 – 32                    | 772678  |
| 32 – 50                     | 40 – 63                    | 772679  |