



## ECON® Ball valve Type: 7642FS Stainless steel Fire safe Butt weld B16.25 S40 Class 600



### Characteristics

**Type:** 7642FS

**Norm:** ASME

**Construction type:** 2-way

**Housing construction:** 3-part

**Housing material:** Stainless steel

**Material quality:** ASTM A351 CF8M

**Connection:** Butt weld

**Standard welding connection:** B16.25 S40

**Top flange standard:** ISO 5211 Direct Mount

**With locking device:** No

**Material ball:** ASTM A351 CF8M

**Seat material:** TF 4103

**Spindle material:** ASTM A276 316 Grade S

**Primary spindle seal material:** RPTFE

**Secondary spindle seal material:** FPM (FKM)

**Tertiary spindle seal material:** Graphite

**Body seal:** Graphite

**Material connection piece:** ASTM A351 CF8M

**Minimum medium temperature (continuous):** -40 °C

**Maximum medium temperature (continuous):** 220 °C

**Fire safe:** Yes

**Pressure relief:**

B16.34.

- Full or reduced bore.
- Design with antistatic equipment between ball and housing.

### Approval

- Fire-safe according to ISO 10497 (third edition) and API 607 (seventh edition).
- Type approval from Lloyd's Register.
- Safety integrity level [SIL] 2.

### Options

- Design with worm gearbox, pneumatic, electric or hydraulic drives.
- Position feedback for manual and automatic valves.
- Available with different seat materials such as TF 4215, TFM 1600 and PEEK.
- Fire-safe design available.
- Stainless steel extended spindle for insulation or for cold applications (up to -50°C).
- With connection for earthing.
- With 30°, 60° or 90° V-shaped ball bore for modulating applications.
- Connections with BSPP thread according to ISO 228-1, NPT thread according to ASME B1.20.1, socket weld according to ASME B16.11 or EN 12760, and butt weld according to EN 12627 or ISO 1127 S1 or SMS 3008 [EN 10357 series D] or DIN 11850 series 1 and 2 [EN 10357 series B and A].

### Application

- Industrial and maritime applications.
- Liquid and gaseous media.
- Recommended in: Chemical

### Technical Information

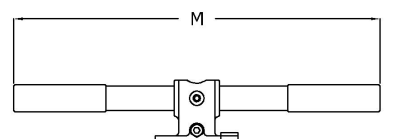
- Connection according to ASME B16.25 S40.
- Floating ball.
- Pressure class: Class 600.
- With direct-mount top flange according to ISO 5211.
- Closed neck design with leak detection opening.
- Equipped with a robust lever.
- Average temperature for a tap with standard TF 4103 seats: -40°C/+220°C. Up to a maximum of 250° C for taps with TF 4215 seats.

### Construction

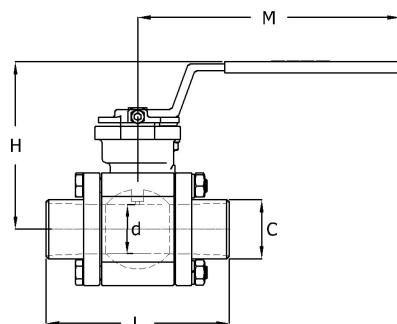
- Three-part housing construction.
- Wall thickness according to EN 12516-1 and ASME

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Size table:



DN2.1/2"



| DN          | Full bore | d<br>mm | L<br>mm | H<br>mm | M<br>mm | C<br>mm | Weight<br>kg |
|-------------|-----------|---------|---------|---------|---------|---------|--------------|
| 1/4" [8]    | Yes       | 15      | 71      | 83      | 140     | 13.7    | 0.9          |
| 3/8" [10]   | Yes       | 15      | 71      | 83      | 140     | 17.1    | 0.9          |
| 1/2" [15]   | Yes       | 15      | 72      | 83      | 140     | 21.3    | 1            |
| 3/4" [20]   | No        | 15      | 72      | 83      | 140     | 26.7    | 1            |
| 3/4" [20]   | Yes       | 20      | 97      | 88      | 140     | 26.7    | 1.5          |
| 1" [25]     | No        | 20      | 97      | 88      | 140     | 33.4    | 1.5          |
| 1" [25]     | Yes       | 25      | 109     | 97      | 190     | 33.4    | 2            |
| 1.1/4" [32] | No        | 25      | 109     | 97      | 190     | 42.2    | 2            |
| 1.1/4" [32] | Yes       | 31.8    | 118     | 103     | 190     | 42.2    | 3            |
| 1.1/2" [40] | No        | 31.8    | 118     | 103     | 190     | 48.3    | 3            |
| 1.1/2" [40] | Yes       | 38      | 129     | 148     | 290     | 48.3    | 4.5          |
| 2" [50]     | No        | 38      | 129     | 148     | 290     | 60.3    | 4.5          |
| 2" [50]     | Yes       | 50      | 145     | 157     | 209     | 60.3    | 6.5          |
| 2.1/2" [65] | No        | 50      | 145     | 157     | 290     | 75      | 6.5          |

Pressure and temperature range

| Seat material<br>+ DN full bore         | -40  | 50   | 100  | 150 | 175 | 200 | 250 | 300 | [°C]  |
|-----------------------------------------|------|------|------|-----|-----|-----|-----|-----|-------|
| TF4103 &<br>TFM1600 1/4" -<br>1"        | 99.3 | 96.2 | 72   | 48  | 25  | 0   | -   | -   | [bar] |
| TF4215 1/4" - 1"                        | 99.3 | 96.2 | 84.4 | 65  | 45  | 23  | 0   | -   | [bar] |
| PEEK 1/4" - 1"                          | 99.3 | 96.2 | 84.4 | 77  | 58  | 37  | 13  | 0   | [bar] |
| TF4103 &<br>TFM1600 1.1/4<br>" - 1.1/2" | 80   | 80   | 60   | 40  | 20  | 0   | -   | -   | [bar] |
| TF4215 1.1/4" -<br>1.1/2"               | 80   | 80   | 80   | 61  | 42  | 21  | 0   | -   | [bar] |
| PEEK 1.1/4" -<br>1.1/2"                 | 80   | 80   | 80   | 77  | 57  | 36  | 13  | 0   | [bar] |
| TF4103 &<br>TFM1600 2"                  | 76   | 76   | 56   | 38  | 20  | 0   | -   | -   | [bar] |
| TF4215 2"                               | 76   | 76   | 76   | 58  | 39  | 20  | 0   | -   | [bar] |
| PEEK 2"                                 | 76   | 76   | 76   | 76  | 56  | 35  | 12  | 0   | [bar] |

| Nominal<br>inner<br>diameter | External tube<br>diameter of<br>connection<br>mm | Wall<br>thickness,<br>connection<br>mm | Pressure<br>rating | Face to Face<br>norm     | Manual<br>operation | Mounting<br>flange | Mounting<br>flange 2 | Bore         | Maximum<br>operating<br>pressure<br>bar | Article  |
|------------------------------|--------------------------------------------------|----------------------------------------|--------------------|--------------------------|---------------------|--------------------|----------------------|--------------|-----------------------------------------|----------|
| 1/4" [8]                     | 13.7                                             | 2.25                                   | Class 600          | Manufacturer<br>standard | Handle              | F03                | F04                  | Full bore    | 99                                      | 13708522 |
| 3/8" [10]                    | 17.1                                             | 2.3                                    | Class 600          | Manufacturer<br>standard | Handle              | F03                | F04                  | Full bore    | 99                                      | 13708523 |
| 1/2" [15]                    | 21.3                                             | 2.75                                   | Class 600          | Manufacturer<br>standard | Handle              | F03                | F04                  | Full bore    | 99                                      | 13559694 |
| 3/4" [20]                    | 26.7                                             | 2.85                                   | Class 600          | Manufacturer<br>standard | Handle              | F03                | F04                  | Reduced bore | 99                                      | 14256530 |

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| Nominal inner diameter | External tube diameter of connection<br>mm | Wall thickness, connection<br>mm | Pressure rating | Face to Face norm     | Manual operation | Mounting flange | Mounting flange 2 | Bore         | Maximum operating pressure<br>bar | Article  |
|------------------------|--------------------------------------------|----------------------------------|-----------------|-----------------------|------------------|-----------------|-------------------|--------------|-----------------------------------|----------|
| 3/4" [20]              | 26.7                                       | 2.85                             | Class 600       | Manufacturer standard | Handle           | F03             | F04               | Full bore    | 99                                | 13559695 |
| 1" [25]                | 33.4                                       | 3.4                              | Class 600       | Manufacturer standard | Handle           | F03             | F04               | Reduced bore | 99                                | 14256531 |
| 1" [25]                | 33.4                                       | 3.4                              | Class 600       | Manufacturer standard | Handle           | F04             | F05               | Full bore    | 99                                | 13559696 |
| 1.1/4" [32]            | 42.2                                       | 3.55                             | Class 600       | Manufacturer standard | Handle           | F04             | F05               | Reduced bore | 99                                | 14256532 |
| 1.1/4" [32]            | 42.2                                       | 3.55                             | Class 600       | Manufacturer standard | Handle           | F04             | F05               | Full bore    | 80                                | 13559697 |
| 1.1/2" [40]            | 48.3                                       | 3.7                              | Class 600       | Manufacturer standard | Handle           | F04             | F05               | Reduced bore | 80                                | 14256533 |
| 1.1/2" [40]            | 48.3                                       | 3.7                              | Class 600       | Manufacturer standard | Handle           | F07             |                   | Full bore    | 80                                | 13559698 |
| 2" [50]                | 60.3                                       | 3.9                              | Class 600       | Manufacturer standard | Handle           | F07             |                   | Reduced bore | 80                                | 14256534 |
| 2" [50]                | 60.3                                       | 3.9                              | Class 600       | Manufacturer standard | Handle           | F07             |                   | Full bore    | 76                                | 13559699 |
| 2.1/2" [65]            | 75                                         | 6.25                             | Class 600       | Manufacturer standard | Handle           | F07             |                   | Reduced bore | 76                                | 14256535 |

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