



ECON® Ball valve Type: 7742 Stainless steel Socket weld B16.11 Class 300/600



Characteristics

Type: 7742
Norm: ASME
Construction type: 2-way
Housing construction: 3-part
Housing material: Stainless steel
Material quality: ASTM A351 CF8M
Connection: Socket weld
Standard welding connection: B16.11
Top flange standard: ISO 5211 Direct Mount
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: RPTFE
Body seal: RPTFE
Material connection piece: ASTM A351 CF3M
Actuator material: 1.4301
Minimum medium temperature (continuous): -40 °C
Maximum medium temperature (continuous): 220 °C

Application

- Industrial and maritime applications.
- Liquid and gaseous media.
- Recommended in: Chemical, Food & Beverages

Technical Information

- Connection according to ASME B16.11, size 1/4" to 2" full bore also meet the EN 12760 standard.
- Floating ball.
- Pressure class: Class 600 up to and including 2.1/2". Class 300 for 3" and 4".
- With direct-mount top flange according to ISO 5211.
- Closed neck design with leak detection opening.
- All components intended to come into contact with food comply with EC 1935.
- The chevron seal set used as a spindle seal and the axial seal ensure a longer service life and lower torque.
- Equipped with a robust, lockable lever.
- Average temperature for a tap with standard TF 4103 seats: -40°C/+220°C. Up to a maximum of 280° C for taps with PEEK seats.

Construction

- Three-part housing construction.
- Design certified according to ISO 7121, MSS SP-110 and MSS SP-72.
- Wall thickness according to EN 12516-1 and ASME B16.34.
- Full or reduced bore.
- Design with antistatic equipment between ball and housing.

Approval

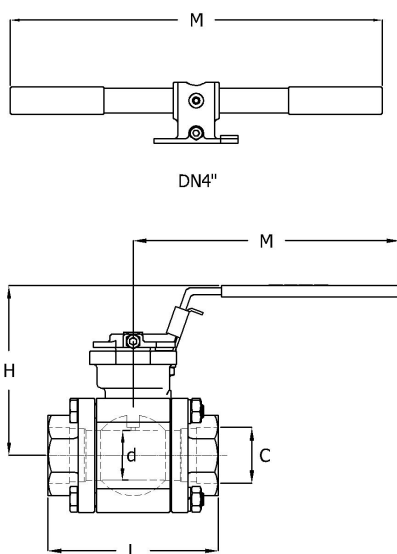
- Fugitive emission certified according to the German Technical Instructions on Air Quality Control [TA-Luft], VDI 2440, point 3.3.1.3.
- Fugitive emission certified according to ISO 15848-1, CO1 and CO2.
- Safety integrity level [SIL] 2.
- Declaration of conformity according to EC 1935/2004.

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 EN 12760 and butt weld according to ASME B16.25 S40 or 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].

Size table:

DN	Full bore	d mm	L mm	H mm	M mm	C mm	Weight kg
1/4" [8]	Yes	15	71	83	140	14.4	0.9
3/8" [10]	Yes	15	71	83	140	17.8	0.9
1/2" [15]	Yes	15	72	83	140	21.9	1
3/4" [20]	No	15	72	83	140	27.4	1
3/4" [20]	Yes	20	97	88	140	27.4	1.5
1" [25]	No	20	97	88	140	34.1	1.5
1" [25]	Yes	25	109	97	165	34.1	2
1.1/4" [32]	No	25	109	97	165	42.9	2
1.1/4" [32]	Yes	31.8	118	103	165	42.9	3
1.1/2" [40]	No	31.8	118	103	165	49	3
2" [50]	No	38	129	130	202	61.5	4.5
2" [50]	Yes	50	145	139	202	61.5	6.5
2.1/2" [65]	Yes	65	185	178	257	74	12.5
3" [80]	Yes	76	205	188	257	90	16.5
4" [100]	Yes	100	240	207.5	405	115.5	26



Pressure and temperature range									
Seat material + DN full bore	-40	50	100	150	175	200	250	300	[°C]
TF4103 & TFM1600 1/4" - 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 & TFM1600 1.1/4 " - 1.1/2"	80	80	60	40	20	0	-	-	[bar]
TF4215 1.1/4" - 1.1/2"	80	80	80	61	42	21	0	-	[bar]
PEEK 1.1/4" - 1.1/2"	80	80	80	77	57	36	13	0	[bar]
TF4103 & 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]
TF4103 & TFM1600 2.1/2 "	69	69	52	35	18	0	-	-	[bar]
TF4215 2.1/2"	69	69	69	53	37	19	0	-	[bar]
PEEK 2.1/2"	69	69	69	69	50	31	10	0	[bar]
TF4103 & TFM1600 3" - 4"	49.6	48.1	37	25	12	0	-	-	[bar]
TF4215 3" - 4"	49.6	48.1	42.2	38.5	37	18	0	-	[bar]

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Pressure and temperature range									
PEEK 3" - 4"	49.6	48.1	42.2	38.5	37	35.7	13	0	[bar]

Nominal inner diameter	External tube diameter of connection mm	Pressure rating	Face to Face norm	Manual operation	Mounting flange	Mounting flange 2	Bore	With locking device	Maximum operating pressure bar	Article
1/4" [8]	14.4	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	99	EC0774201/4-RRSDB
3/8" [10]	17.8	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	99	EC0774203/8-RRSDB
1/2" [15]	21.9	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	99	13279040
3/4" [20]	27.4	Class 600	Manufacturer standard	Handle	F03	F04	Reduced bore	Yes	99	13279053
3/4" [20]	27.4	Class 600	Manufacturer standard	Handle	F03	F04	Full bore	Yes	99	13279042
1" [25]	34.1	Class 600	Manufacturer standard	Handle	F03	F04	Reduced bore	Yes	99	EC077420001-RRSEB
1" [25]	34.1	Class 600	Manufacturer standard	Handle	F04	F05	Full bore	Yes	99	13279037
1.1/4" [32]	42.9	Class 600	Manufacturer standard	Handle	F04	F05	Reduced bore	Yes	99	EC0774211/4R-RSEB
1.1/4" [32]	42.9	Class 600	Manufacturer standard	Handle	F04	F05	Full bore	Yes	80	EC0774211/4R-RSDB
1.1/2" [40]	49	Class 600	Manufacturer standard	Handle	F04	F05	Reduced bore	Yes	80	13279054
2" [50]	61.5	Class 600	Manufacturer standard	Handle	F07		Reduced bore	Yes	80	13279049
2" [50]	61.5	Class 600	Manufacturer standard	Handle	F07		Full bore	Yes	76	13279038
2.1/2" [65]	74	Class 600	Manufacturer standard	Handle	F07	F10	Full bore	Yes	69	13279046
3" [80]	90	Class 300	Manufacturer standard	Handle	F07	F10	Full bore	Yes	49	EC077420003-RRSDB
4" [100]	115.5	Class 300	Manufacturer standard	T-wrench	F10		Full bore	No	49	EC07642000-4RRSDB

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