ECON® Ball valve Type: 7642 Stainless steel Butt weld B16.25 S40 Class 300/600

Characteristics

Type: 7642
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
Face to Face norm: Manufacturer standard
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 B16.25 S40.
- 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 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).

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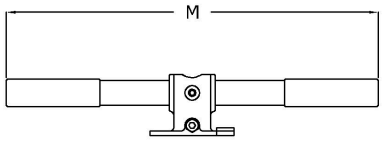

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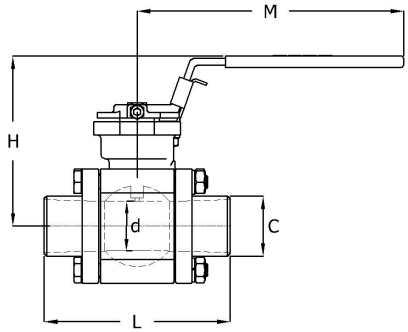

Size table:

DN	Full bore	d	L	H	M	C	Weight
		mm	mm	mm	mm	mm	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	165	33.4	2
1.1/4" [32]	No	25	109	97	165	42.2	2
1.1/4" [32]	Yes	31.8	118	103	165	42.2	3
1.1/2" [40]	No	31.8	118	103	165	48.3	3
1.1/2" [40]	Yes	38	129	130	202	48.3	4.5
2" [50]	No	38	129	130	202	60.3	4.5
2" [50]	Yes	50	145	139	202	60.3	6.5
2.1/2" [65]	No	50	145	139	202	75	6.5
2.1/2" [65]	Yes	65	185	178	257	75	12.5
3" [80]	Yes	76	205	188	257	88.9	16.5
3" [80]	No	65	185	178	257	88.9	12.5
4" [100]	No	76	205	188	257	114.3	16.5
4" [100]	Yes	100	240	207.5	405	114.3	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]

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Pressure and temperature range									
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]
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	Wall thickness, connection	Pressure rating	Manual operation	Mounting flange	Mounting flange 2	Bore	With locking device	Maximum operating pressure	Article
	mm	mm							bar	
1/4" (8)	13.7	2.25	Class 600	Handle	F03	F04	Full bore	Yes	99	13278936
3/8" (10)	17.1	2.3	Class 600	Handle	F03	F04	Full bore	Yes	99	13278938
1/2" (15)	21.3	2.75	Class 600	Handle	F03	F04	Full bore	Yes	99	13278935
3/4" (20)	26.7	2.85	Class 600	Handle	F03	F04	Reduced bore	Yes	99	13278949
3/4" (20)	26.7	2.85	Class 600	Handle	F03	F04	Full bore	Yes	99	13278937
1" (25)	33.4	3.4	Class 600	Handle	F03	F04	Reduced bore	Yes	99	13278944
1" (25)	33.4	3.4	Class 600	Handle	F04	F05	Full bore	Yes	99	13278939
1.1/4" (32)	42.2	3.55	Class 600	Handle	F04	F05	Reduced bore	Yes	99	13278951
1.1/4" (32)	42.2	3.55	Class 600	Handle	F04	F05	Full bore	Yes	80	13278941
1.1/2" (40)	48.3	3.7	Class 600	Handle	F04	F05	Reduced bore	Yes	80	13278950
1.1/2" (40)	48.3	3.7	Class 600	Handle	F07		Full bore	Yes	80	13278940
2" (50)	60.3	3.9	Class 600	Handle	F07		Reduced bore	Yes	80	13278945
2" (50)	60.3	3.9	Class 600	Handle	F07		Full bore	Yes	76	13278933
2.1/2" (65)	75	6.25	Class 600	Handle	F07		Reduced bore	Yes	76	13278952
2.1/2" (65)	75	6.25	Class 600	Handle	F07	F10	Full bore	Yes	69	13278942
3" (80)	88.9	5.5	Class 300	Handle	F07	F10	Full bore	Yes	49	13278934
3" (80)	88.9	5.5	Class 600	Handle	F07	F10	Reduced bore	Yes	69	13278946
4" (100)	114.3	6	Class 300	Handle	F07	F10	Reduced bore	Yes	49	13278947
4" (100)	114.3	6	Class 300	T-wrench	F10		Full bore	No	49	13278943

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