

Hydrogen Service High Pressure Trunnion Ball Threaded Body

Technical Information

Operation

Maximum Working pressure 1,034bar (15,000psi).

Working temperature: -40°C up to +85°C (-40°F up to +185°F).

NPT 3/4" & 1" MWP is 700bar (10,000psi).

Design

- Threaded body
- Trunnion ball
- Automation-ready with standard ISO 5211 connecting plate
- ISO 15848-01 and API 641 emission standard certificated design
- ISO 10497 and API607 fire-safe standard certificated design
- Double body sealing

Testing & Certifications

- ISO 19880-3:2018 Gaseous hydrogen – fueling stations valve
- 100% shell & inline leak tested
- Marine classification (on demand): DNV GL, LR, BV, ABS, KR, RINA, others

Materials

- Stainless steel body & ends.
- All materials compatible for Hydrogen use.

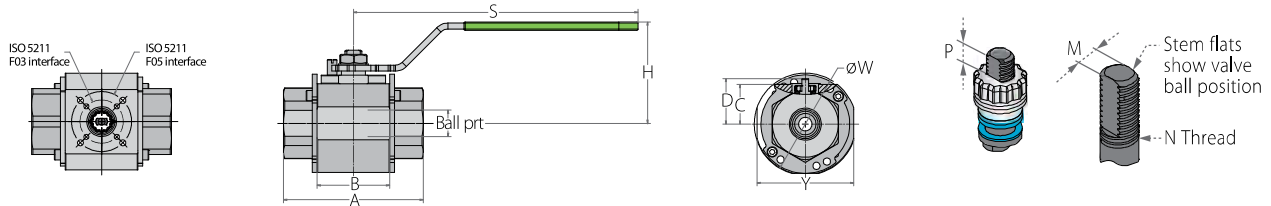
End Connections

Valve size code	Connection		Minimum orifice mm (in)	Cv	Kv	
02	Medium Pressure Coned & Threaded	CTM	1/4"	2.8	0.33	0.29
03		CTM	3/8"	5.2	1.17	1.03
06		CTM	1/2"	7.9	4.4	3.89
07		CTM	3/4"	11.1	21.28	18.83
10		CTM	1"	11.15	9.98	8.84
02	High Pressure Coned & Threaded	CTH	1/4"	2.4	0.24	0.21
03		CTH	3/8"	3.2	0.43	0.38
06		CTH	1/2"	6.4	2.54	2.25
10		CTH	1"	11.1	22.27	19.71
02	Threaded	NPT/BSPP/DIN3852/BSPT	1/4"	7.66	2.62	2.32
03		NPT/BSPP/DIN3852/BSPT	3/8"	10.7	12.51	11.07
05		NPT/BSPP/DIN3852/BSPT	1/2"	11.15	13.01	11.51



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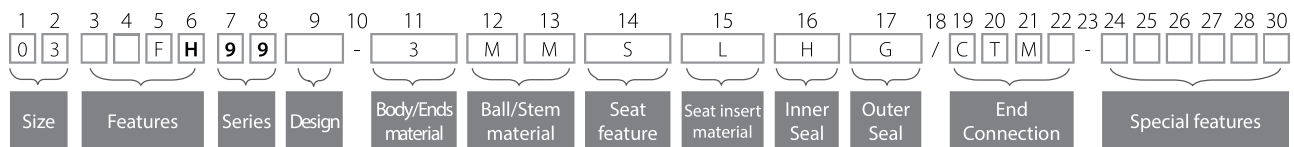
Valve Dimensions
ISO 5211 Interface -F05



End Connection size	Unit	Ball port	A	B	C	D	H	M	N	P	W	S	Y
DN8	mm	11.15	155.4	77.7	33.00	48.00	84.4	8.65	3/16" UNF	19.5	85	237	80.5
1/4"	inch	0.44	6.12	3.06	1.30	1.89	3.32	0.34		0.77	3.46	9.33	3.17
DN10	mm	11.15	155.4	77.7	33.00	63.00	84.4	8.65		19.5	85	237	80.5
3/8"	inch	0.44	6.12	3.06	1.30	2.48	3.32	0.34		0.77	3.46	9.33	3.17
DN12	mm	11.15	155.4	77.7	33.00	63.00	84.4	8.65		19.5	85	237	80.5
1/2"	inch	0.44	6.12	3.06	1.30	2.48	3.32	0.34		0.77	3.46	9.33	3.17
DN14	mm	11.15	155.4	77.7	33.00	63.00	84.4	8.65		19.5	85	237	80.5
5/16"	inch	0.44	6.12	3.06	1.30	2.48	3.32	0.34		0.77	3.46	9.33	3.17
DN20	mm	11.15	155.4	77.7	33.00	63.00	84.4	8.65		19.5	85	237	80.5
3/4"	inch	0.44	6.12	3.06	1.30	2.48	3.32	0.34		0.77	3.46	9.33	3.17
DN25	mm	11.15	175.4	87.7	33.00	63.00	84.4	8.65		19.5	85	237	80.5
1"	inch	0.44	6.9	3.45	1.30	2.48	3.32	0.34		0.77	3.46	9.33	3.17

Ordering Code System

"Mandatory option" options are marked with **green background** | "Standard offer" options are marked with **light green background**



Size (1-2)		
Code	inch	mm
02	1/4"	8
03	3/8"	10
05 *	1/2"	13
06	5/16"	20
07	3/4"	20
10	1"	25

* Not applicable for CTM/CTH

Features (3-6)	
H	Hydrogen use
F	Fire safe

Series (7-8)	
99	HP Trunnion threaded body 3 pcs.

Design (9)	
W	Double body seal
Body/Ends material (11)	
3	S. Steel DIN 1.4435
Ball/Stem material (12-13)	
M	High Strength S. Steel
Seat feature (14)	
S	Single Piston Effect (SPE) (API 6D DBB)
Seat Insert material (15)	
L	Virgin PEEK
Inner Seal material (16)	
H	HNBR
V	Viton
A	TFM

Outer Seal material (17)	
G	Expanded graphite
End connections (19-22)	
Threaded Ends	
CTM	Coned & Threaded Medium pressure
CTH	Coned & Threaded High pressure
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPP	ISO228-1 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
BSPT	EN 10226 - Pipe Taper thread
Special Features (24-30)	