GENERANT
Valves & Bi-Lok Fittings

INSTRUMENT BALL VALVE
1/4” - 3/4" NPT
1/4” - 3/4" Dual Ferrule Tube
0 – 6000 Psig (413 Bar)

IBV SERIES

Description

Series IBV Instrument Ball Valves offer reliable 1/4-turn ON/OFF flow control for pressures up to 6,000 Psig (413 bar). These valves feature a Micro-Finished Floating Ball design to provide a positive seal in both directions. Series IBV Instrument Ball Valves also feature a “straight-through” flow path to ensure high flows with minimum pressure drop. The valves are designed to operate with a low operation torque while providing a long service life. All valve configurations can be panel mounted.

IBV-8T

Features

- Bi-Directional
- Straight-Through Flow Path
- Micro-Finished Floating Ball
- Large Orifices for High Flow Efficiency
- Handle Orientation Indicates Flow
- NPT or Dual Ferrule Tube Connections
- Adjustable Stem Packing for in-line maintenance
- Field Repairable
- 100% Factory Tested

- **3D CAD MODELS AVAILABLE ONLINE**

Technical Data

Pressure Rating: 6,000 PSI (413 Bar) at 100°F (3:1 SF)
Per NFPA 52 (2013): 4,750 PSI (328 Bar)
Per ASME B31.3 (2012): 4,400 PSI (303 Bar)
Temperature Rating: -40° – 250°F (-40°-121°C)
Leakage: < 0.1 SCCM @ 1,000 PSIG (69 Bar)
- 100% Factory Tested for Leakage
Note: For a leak-free stem seal at pressures higher than 1,000 PSI or after prolonged use, additional tightening of the stem packing may be required.
Flow Coefficients: per size, see Dimensional Data Table

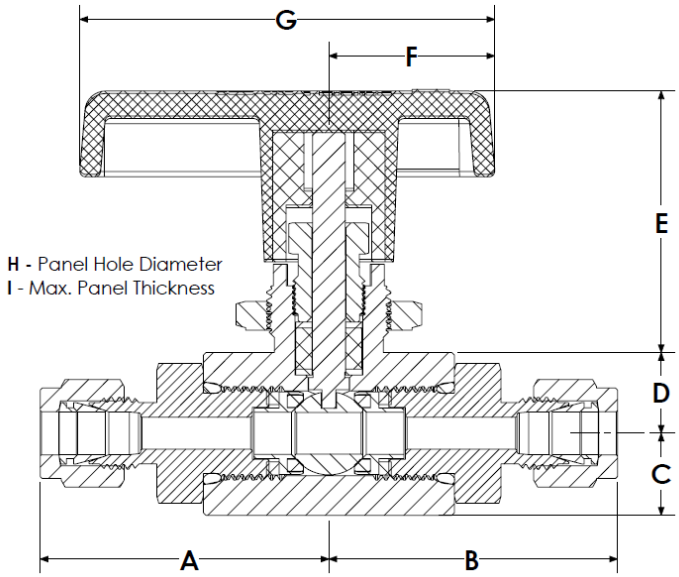
IBV-4T

Materials of Construction

Component	Material
Body	316 Stainless Steel, ASTM A182
Valve Stem, Valve Ball, Tube Ends, Nuts, Washers, Ferrules	316 Stainless Steel, ASTM A479
Ball Seat Assembly	316 Stainless Steel, ASTM A479 and PCTFE ASTM D1430
Seat Spacer, Stem Packing, O’Rings*	PTFE, ASTM D1710
Handle with Insert	Nylon with 316 Stainless Steel Insert, ASTM A479
Set Screw	18-8 Stainless Steel

*other O’Ring materials available, consult factory.
Note: All valves lubricated with Krytox ™

INSTRUMENT BALL VALVE



Dimensional Data

MODEL CODE	PORT CONFIGURATION (INLET AND OULET)	FLOW COEFF. (Cv)	VALVE ORIFICE (in)	Dimensions in inches (mm)							
				A, B	C	D	E	F	G	H	I
IBV-4T	1/4” Bi-Lok	1.05	0.187	1.50 *(38.1)*	0.49 (12.4)	0.48 (12.2)	1.56 (39.6)	1.00 (25.4)	2.50 (63.5)	0.75 (19.1)	0.20 (5.1)
IBV-4F	1/4” NPT Female	2.35	0.250	1.50 (38.1)							
IBV-6T	3/8” Bi-Lok	2.35	0.250	1.80 (45.7)							
IBV-6FS	3/8” Face Seal	2.35	0.250	1.50 (38.1)							
IBV-6F	3/8” NPT Female	6.40	0.406	2.25 (57.1)	0.72 (18.3)	0.71 (18.0)	1.73 (43.9)	1.25 (31.8)	3.50 (88.9)	0.87 (22.1)	0.35 (8.9)
IBV-8T	1/2” Bi-Lok	6.40	0.406	2.65 (67.3)							
IBV-8F	1/2” NPT Female	6.40	0.406	2.45 (62.2)							
IBV-8FS	1/2” Face Seal	5.60	0.375	2.25 (57.1)							
IBV-12T	3/4" Bi-Lok	6.40	0.406	2.65 (67.3)							
IBV-12F	3/4” NPT Female	6.40	0.406	2.65 (67.3)							

Notes: Dimensions shown with Bi-Lok nuts finger-tight. Dimensions are in inches (millimeters), for reference only and subject to change. Restrictions in inlet or outlet piping may reduce flow. NPT Threads per ASME B1.20.1. Face Seal Connections per SAE J1453.

How to Order

IBV - 8T

SERIES
IBV - Instrument Ball Valve

Natural Gas Service
HNBR O-Rings are recommended for Face Seal Connections in Natural Gas Service. Specify “-H” suffix to indicate HNBR Face Seal O-Rings.

PORT CONFIGURATION
4T - 1/4" Bi-Lok
4F - 1/4" NPT Female
6T - 3/8" Bi-Lok
6FS - 3/8" Face Seal*
6F - 3/8" NPT Female
8T - 1/2" Bi-Lok
8F - 1/2" NPT Female
8FS - 1/2" Face Seal*
12T - 3/4" Bi-Lok
12F - 3/4" NPT Female

* - Face Seal Connections come standard with FKM O-Rings.

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