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.

Features

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

- **3D CAD MODELS AVAILABLE ONLINE**

IBV-8T

Technical Data

Pressure Rating: 6,000 PSI (413 Bar) at 100°F (3:1 SF)[1]
    Per NFPA 52 (2013): 4,750 PSI (328 Bar)
    Per ASME B31.3 (2012): 4,400 PSI (303 Bar)
Temperature Rating: -65° to 200°F (-54° to 93°C)
Leakage: < 0.1 SCCM @ 2,100 PSIG (145 Bar)
    - 100% Factory Tested for Leakage
    Note: For a leak-free stem seal at pressures higher than 2,100 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	ABS with Stainless Steel Insert
Set Screw	18-8 Stainless Steel
Face Seal O'Rings[2]	Standard – FKM
	Option "H" - HNBR

[1] for sustained use at temperatures higher than 100°F, pressure rating may be affected, consult factory.
[2] other O'Ring materials available, consult factory.

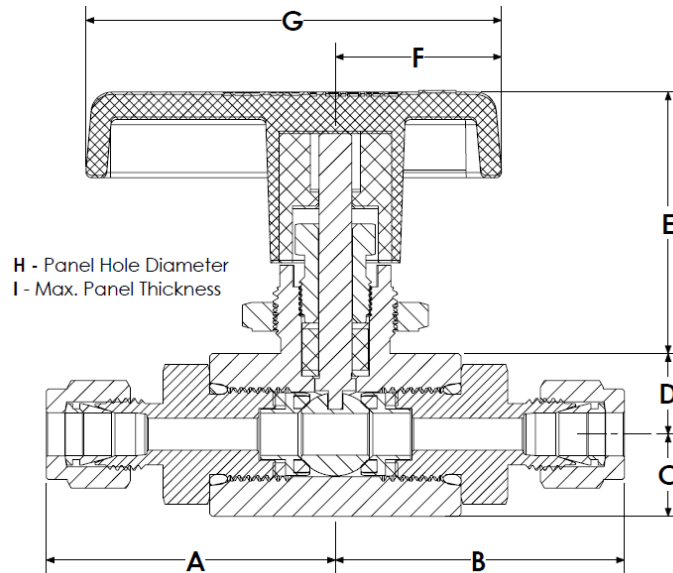Note: All valves lubricated with perfluorinated polyether (PFPE)

H - Panel Hole Diameter
I - Max. Panel Thickness
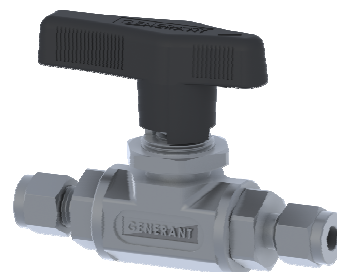
Dimensional Data

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)	0.77 (19.6)	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)	0.90 (22.9)	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

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.

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.

PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

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