



## IBV SERIES

### INSTRUMENT BALL VALVE USER INSTRUCTIONS



#### Scope:

This user instruction is applicable for Generant Series IBV, Instrument Ball Valves in all porting configurations offered.

#### Safe Component Selection

When selecting a component, total system design must be considered to ensure safe, trouble free performance. Component function, material compatibility, adequate ratings, proper installation, operation, cleanliness, and maintenance are the responsibility of the system designer and user.

#### Pressure and Temperature Ratings:

Pressure Rating (at 100°F)<sup>1</sup>: 6,000 PSI (413 bar), 3:1 SF

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)

<sup>1</sup>for sustained use at temperatures higher than 100°F, pressure rating may be affected, consult factory.

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#### Installing Panel Mount Valves

- 1) Through-hole required:
  - For IBV-4T, IBV-4F, IBV-6T, and IBV-6FS, 3/4" (19.05 mm) diameter hole required. Max panel thickness of 0.20" (5.1 mm).
  - For IBV-6F, IBV-8T, IBV-8F, IBV-8FS, IBV-12T, and IBV-12F, 7/8" (22.23 mm) diameter hole required. Max panel thickness of 0.35" (8.9 mm).
- 2) Remove handle using 3/32" allen wrench.
- 3) Insert the valve through the panel hole, install the panel nut to finger tight, and tighten down on the panel nut until valve is secure.
- 4) Adjust the stem packing to achieve a leak proof stem seal, if required, and re-install the handle.

#### Adjusting Stem Packing

In some applications, packing adjustment may be required to maintain a leak-proof stem seal throughout the valve's service life. Follow these steps to leak-check and adjust packing, if required.

- 1) Remove handle using a 3/32" allen wrench.
- 2) Use a leak detector to inspect for stem leakage.
- 3) If leakage is detected, tighten the stem packing nut gradually until leakage ceases and re-install handle.  
NOTE: It should not require more than 1/4 turn on stem packing nut to achieve a leak-free stem seal.

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### Port Installation

Series IBV Valves are bi-directional. Handles can be removed and rotated 180° to show correct orientation of flow.

#### NPT Ports:

- 1) Apply suitable thread sealant (PTFE tape or compound) to male NPT thread. Two turns of tape is recommended and care should be taken not to apply tape to the first thread.
- 2) Install the valve hand tight.
- 3) Using a wrench on the port connection hex closest to the connection, tighten valve to achieve a leak-free connection.

#### Tube Fittings:

- 1) Insert tube into the fitting body until it bottoms out against the tube stop shoulder. Please note that tubing should be cut squarely and free of burrs.
- 2) Tighten the nut until "finger-tight."
- 3) Secure the valve body with a wrench on the hex closest to the connection and tighten the nut 1–1/4 turns.

EN-FR-114 Rev A DCR2498

\*See Bi-Lok catalog for detailed instructions with diagrams

#### Face Seal Connections:

- 1) Insert O'Ring into Face Seal O'Ring Groove. (O'Rings come lubricated with Krytox®)
- 2) Secure the valve body with a wrench on the hex closest to the connection and tighten Face Seal Nut until a sharp increase in torque is observed corresponding to metal-metal contact between the valve port end and Face Seal Nut.

#### Intended Use

The IBV Series Ball Valve is intended for use as a quarter turn shut-off valve for full or no flow. The valve is not intended for use as a throttling valve. Exposing the valve to high flow rates while in the partially open position may cause noise, vibration, or severe wear to occur.

NOTE: Krytox® is a registered trademark of Dupont.

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- 5) Insert O'Ring into Face Seal O'Ring Groove. (O'Rings come lubricated with Krytox®)
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