

HPHT Isolation Valve



10-V-F-FF-006



10-V-M-F-4-004

BBS In-Line Isolation Valve provide a single point open or close line when assembled to the vessel, tank, tubing and any under pressure component. The compact design is available with a single male and female connection, standard NPT or BSP thread and advanced tube connection configurations. Specification and selection of product materials, options, or components must be made by the purchaser of the equipment.

BBS Pressure-Lock valve technology

Exclusively featured on the BBS In-Line Isolation Valve

Simplified operation

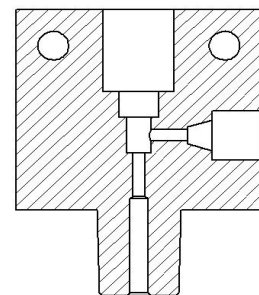
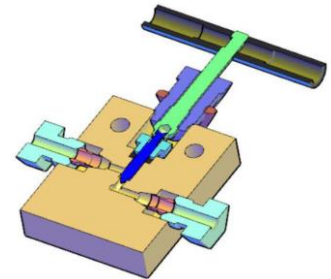
- Two-piece valve stem design provides easier handle turn operation
- Needle-tip safety back seating ensures operator safety during process blowout events

Enhanced reliability

- Process-isolated stem threads increase overall valve life

Note

For more information on the Pressure-Lock Valve, reference BBS Pressure-Lock Valve Configuration.



Valve configuration

Two-valve

The two-valve configuration is available on BBS In-Line Isolation Valve for use with absolute and gage pressure transmitters. An isolate valve provides instrument isolation and a drain/vent valve allows venting, draining, or calibration.

Specifications

Material selection

BBS provides a variety of BBS product with various product options and configurations including materials of construction that can be expected to perform well in a wide range of applications. The BBS product information presented is intended as a guide for the purchaser to make an appropriate selection for the application. It is the purchaser's sole responsibility to make a careful analysis of all process parameters (e.g., all chemical components, temperature, pressure, flow rate, abrasives, contaminants), when specifying product, materials, options and components for the particular application. Emerson is not in a position to evaluate or guarantee the compatibility of the process fluid or other process parameters with the product, options, configuration or materials of construction selected. For more information on material compatibility, refer to the Material Selection and Compatibility Considerations for BBS Pressure Transmitters

Pressure and temperature ratings

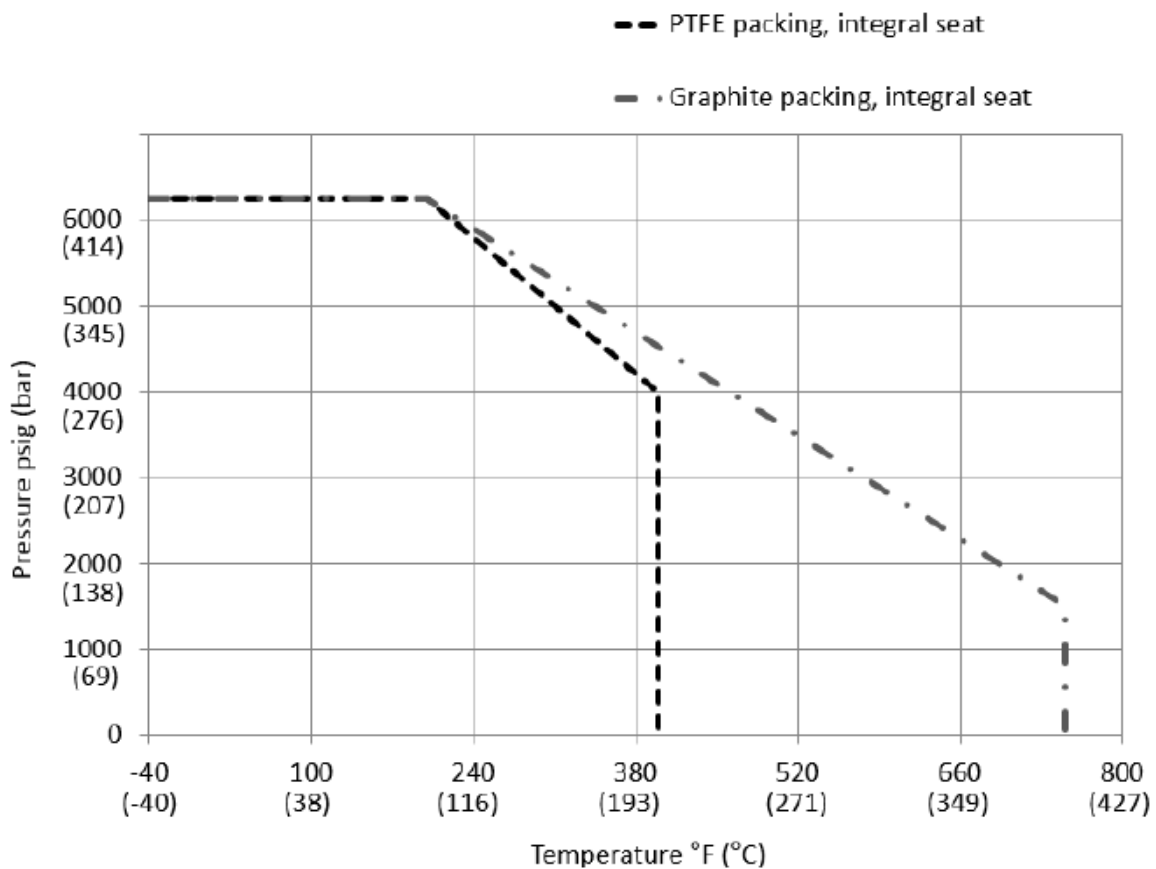


Table 1: BBS In-Line Isolation Valve

Packing	Seat	Pressure and temperature ratings
PTFE	Integral	10000 psi at -40 to 85 °F (689 bar at -40 to 29 °C) 4000 psi at 400 °F (276 bar at 204 °C)
Graphite	Integral	6250 psi at -40 to 200 °F (431 bar at -40 to 93 °C) 1500 psi at 750 °F (103 bar at 399 °C)

Note

Ambient and storage temperature rating follow associated process temperature ratings shown in table.

Ordering information

BBS Manifold Valve can be ordered as a stand-alone product or as an integrated assembly attached to a transmitter.

Order an In-Line Isolation Valve

Procedure

1. Reference the Selection guide for assistance on choosing the type of Isolation Valve.
2. Specify a completed model number by referencing the applicable ordering table for the selected Isolation Valve type:

Table 2: BBS 10-V-F-FF-006 In-Line Isolation Valve Ordering Information

Model	Product description				Def.
10-V-F-FF-006	In-Line Isolation Valve				×
Design class					
6	6000 Psi (400 Bar)				
10	10000 Psi (680 Bar)				×
Manifold Valve style					
V	Valve				×
F	Fitting				
Inlet					
F	Female				×
M	Male				
Outlet					
FF	Female and Female				
MM	Male and Male				
Material					
	Body	Bonnet	Stem	Tip	
	316 SST	316 SST	316 SST	316 SST	×
	316 SST	316 SST	316 SST	UNS 17400	
Process connection					
	1/8-18 Female NPT process connection				×
	1/4-18 Female NPT process connection				

Table 2: BBS 10-V-M-F-4-004 In-Line Isolation Valve Ordering Information

Model	Product description				Def.
10-V-M-F-4-004	In-Line Isolation Valve				×
Design class					
6	6000 Psi (400 Bar)				
10	10000 Psi (680 Bar)				×
Manifold Valve style					
V	Valve				×
F	Fitting				
Inlet					
F	Female				
M	Male				×
Outlet					
F	Female and Female				×
M	Male and Male				
Material					
	Body	Bonnet	Stem	Tip	
	316 SST	316 SST	316 SST	316 SST	×
	316 SST	316 SST	316 SST	UNS 17400	
Process connection					
2	1/8-18 Female NPT process connection				
4	1/4-18 Female NPT process connection				×
Packing material					
	PTFE				×
	Graphite-based				

BBS Pressure-Lock Valve Configuration

Exclusively featured on the BBS 6-V9 In-Line Isolation Valve, the Pressure-Lock Valve utilizes a two-piece stem design with a non-rotating needle tip, which offers the end user simplified operation, enhanced reliability, and increased operator safety.

Figure 4: BBS Pressure-Lock Valve

Simplified operation

- A. Removable handles - allows for a quick way of adding security and reducing tampering.
- B. Packing nut - allows for smooth adjustment of stem packing.
- C. Nut for stem tightness.
- D. Two-piece stem design with non-rotating tip - provides smooth ergonomic operation, reduces potential leak paths, and decreases overall wear, extending valve life.

Increased operator safety

- E. Safety back seating - provides integral blowout protection.

Enhanced reliability

- F. Stem threads isolated from process fluid – increase equipment life and operator safety.
- G. Modular packing – located below stem threads to isolate thread from process fluid, preventing corrosion.
- H. Bonnet threads isolated from process fluid – improves corrosion resistance and equipment life with metal-to-metal, bonnet-to-body seal.
- I. One-piece needle tip stem – ensure seal integrity over wide range of pressures and temperatures.

