BOOSTER PUMP CONTROL VALVE QUICK ACTIVE CHECK VALVE

Model 740 EN/ES

Double chambered, hydraulically operated, active check pump control valve that opens fully or shuts off in response to electric signals. The valve isolates the pump from the system during pump startup and shutdown, thereby preventing pipeline surges.

BERMAD 700 SIGMA EN/ES series valves are hydraulic, oblique pattern, globe valves with a raised seat assembly and double chamber unitized actuator, that can be disassembled from the body as a separate integral unit. The valves hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications. The valves are available in the standard configuration or with an Independent Check Feature code "2S". The 700 SIGMA EN/ES Valves operate under difficult operation conditions with minimal cavitation and noise. They meet size and dimensions requirements of various standards.

Click here for control accessories

HOME VIEW

Features and Benefits

- Designed to - stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated closing curve
- Flexible design - Easy addition of features
- Obstacle free flow pass
- V-Port Throttling Plug (Optional) - Very stable at low flow
- Compatible with various standards
- High quality materials
- In-line serviceable - Easy maintenance

Major Additional Features

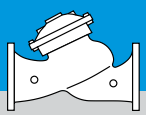
- Independent check feature- 740-2S
- Pressure sustaining – 743
- Pressure reducing – 742
- Flow control – 747-U
- Pump circulation control – 745
- Electronic control – 740-18
- Pressure sustaining and Pressure reducing – 743-2Q

See relevant BERMAD publication

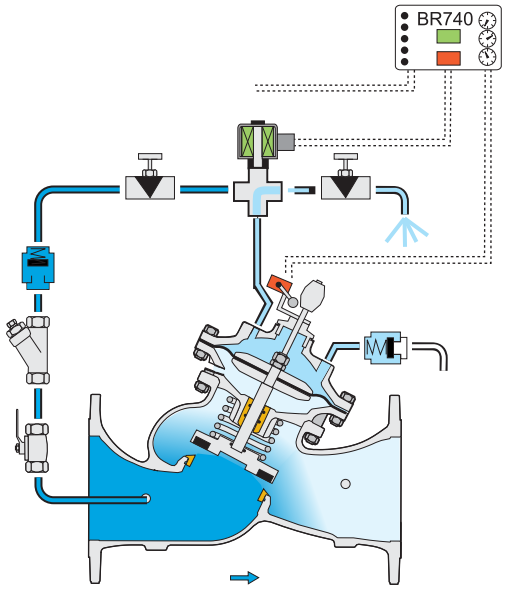
Typical Installation

All images in this catalog are for illustration only

Link to Animation



CLOSED
Reverse Flow
OPEN



This drawing refers to 1½ – 8"; 40-200 mm sized valves only. For other sizes please refer to the Model's IOM.

Main Valve

Valve Patterns: "Y" (Globe)
Size Range:
EN Series: 1½-16"; 40-400 mm
ES Series: 2½-24"; 65-600 mm
Pressure Rating: 25 bar; 400 psi
End Connections: Flanged (all standard)
Plug Types: Flat disc, V-port, Cavitation cage
Temperature Rating: 60°C; 140°F for Cold water applications
Optional higher temperature: Available on request

Standard Materials:

Body & actuator: Ductile Iron
Bolts, nuts & studs: Stainless Steel
Internals: Stainless Steel, Tin Bronze & Coated Steel
Diaphragm: Fabric-reinforced synthetic rubber
Seals: Synthetic rubber
Coating: Dark blue Fusion bonded epoxy

Control System

Standard Materials:

Accessories: Stainless Steel, Bronze & Brass
Tubing: Stainless Steel or Copper
Fittings: Stainless Steel or Brass

Solenoid Standard Materials:

Body: Brass or Stainless Steel
Elastomers: NBR or FPM
Enclosure: Molded Epoxy

Solenoid Electrical Data:

Voltages:
(AC): 24, 110-120, 220-240, (50-60Hz)
(DC): 12, 24, 110, 220
Power Consumption:
(AC): 30VA, inrush; 15VA (8W), holding or 70VA, inrush: 40VA (17.1W), holding
(DC): 8-11.6 W
Values might vary according to specific solenoid model.

Pilot Options:

For more details check solenoid product page

BR 740-E Controller:

Supply Voltage: 110, 230 VAC 50/60Hz
Power Consumption: <8VA Solenoid
Circuit Fuse: 2A (internal)
Pump Control Circuit Fuse: 1A (internal)
Dimensions: 96 x 96 x166 mm (DIN), 0.75 kg
Housing Material: NORYL (DN 43700)

Limit Switch:

Switch Type: SPDT
Electrical Rating: 10A, type gl or gG
Operating Temperature: Up to 85°C (185°F)
Enclosure Rating: IP66

Notes

- Recommended maximum flow velocity: 6.0 m/sec; 20 ft/sec.
- Minimum operating pressure: 0.7 bar/10 psi. For lower pressure requirements consult factory.

For detailed Engineering & Specification data, IOM and CAD Drawings, visit the Model Page on the BERMAD website.