

# LEVEL CONTROL AND PRESSURE SUSTAINING VALVE

with Bi-Level Vertical Float

## Model 753-66 EN/ES

Hydraulically operated, level control and pressure sustaining control valve that controls reservoir filling and reservoir level. During filling the valve sustains minimum upstream pressure regardless of fluctuating flow or reservoir level. Reservoir filling is in response to a hydraulically controlled non-modulating bi-level vertical float that opens at a pre-set reservoir low level and shuts off drip-tight at a pre-set high level.

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](#)



### Features and Benefits

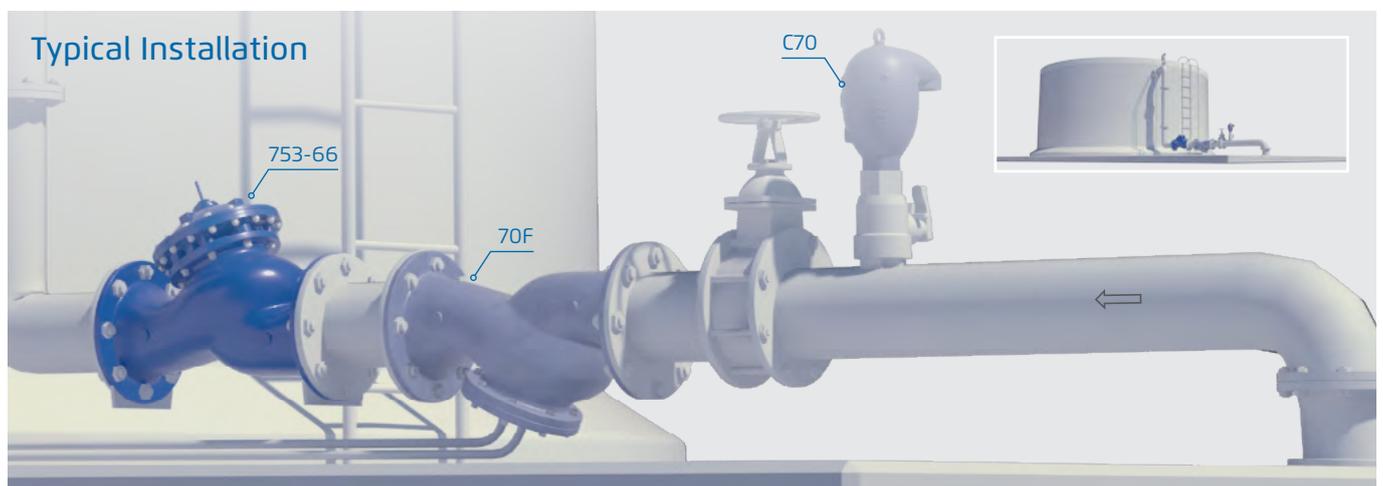
- Designed to - stand up to the toughest conditions
  - Excellent anti-cavitation properties
  - Wide flow range
  - High stability and accuracy
  - Drip tight sealing
- Double chamber design
  - Moderated valve reaction
  - Protected diaphragm
  - Optional operation in very low pressure
  - Moderated 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

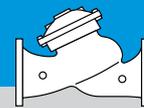
### Major Additional Features

- Level control – 750-66
- Flow control – 757-66-U
- Electric float backup – 753-66-65
- Closing surge prevention – 753-66-49
- Relief override – 753-66-3Q
- Level sustaining – 75A-66
- Independent Check Feature - 753-66-2S

See relevant BERMAD publication

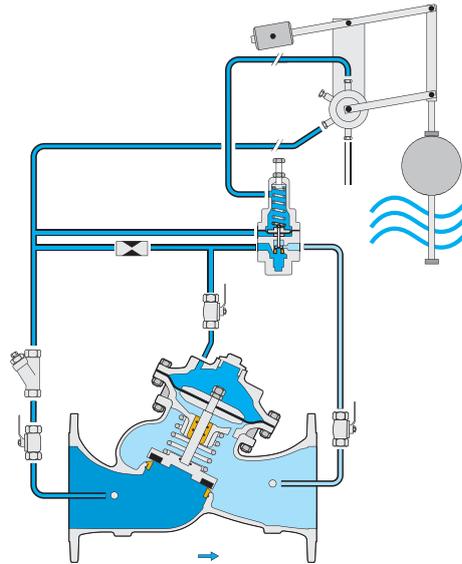


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CLOSED

Regulating



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

**Tubeing:** Stainless Steel or Copper

**Fittings:** Stainless Steel or Brass

#### Pilot standard materials:

**Body:** Stainless Steel, Bronze or Brass

**Elastomers:** Synthetic rubber

**Spring:** Stainless Steel

**Internals:** Stainless Steel

#### Float Pilot Standard Materials:

**Body:** Brass or Stainless Steel 316

**Elastomers:** Synthetic Rubber

**Internal Parts:** Stainless Steel 316 & Brass

**Lever System:** Brass or Stainless Steel 316

**Float:** Plastic

**Float Rod:** Stainless Steel

**Base Plate:** Fusion Bonded Epoxy Coated Steel or Stainless Steel 316

### Notes

- Minimum level differential: 150 mm; 6".
- Maximum level differential: 540 mm; 21".
- Each extension rod adds 560 mm; 22". One extension rod is supplied.
- Extra counterweight is required if second extension rod is used.
- If inlet pressure is below 0.5bar/7psi or above 10bar/150psi, consult factory. See BERMAD float installation recommendation
- Inlet Pressure, Outlet Pressure and Flow-rate are required for optimal sizing.
- Recommended maximum flow velocity: 6.0 m/sec; 20 ft/sec.
- See BERMAD float installation recommendation.

