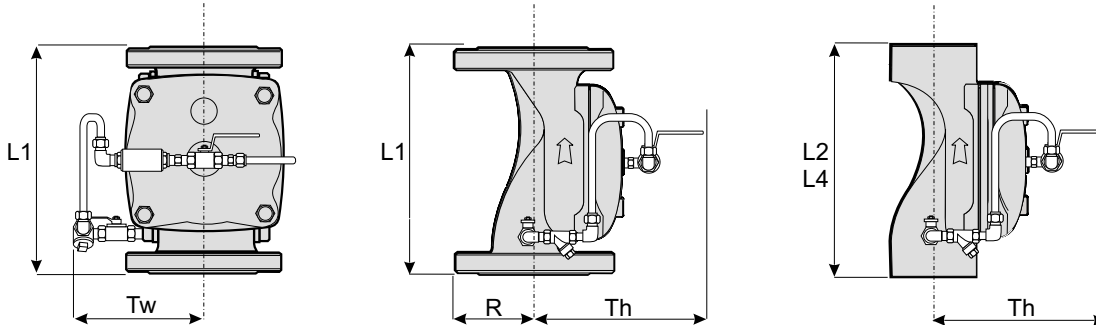


Technical Data



| Valve Size | 2" | | 2½" | | 3" | | 4" | | 6" | | 8" | | 10" | | |
|------------|-------|------|--------------------------------|------|----------------------------------|------|---------------------------------|------|----------------------------------|------|---------------------------------|------|----------------------------------|------|----------------------------------|
| | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | |
| Dimensions | (1)L1 | 205 | 8 ¹ / ₁₆ | 205 | 8 ¹ / ₁₆ | 250 | 9 ¹³ / ₁₆ | 320 | 12 ⁵ / ₈ | 415 | 16 ⁵ / ₁₆ | 500 | 19 ¹¹ / ₁₆ | 605 | 23 ¹³ / ₁₆ |
| | (2)L2 | 180 | 7 ¹ / ₁₆ | 210 | 8 ¹ / ₄ | 255 | 10 ¹ / ₁₆ | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | (3)L4 | 205 | 8 ¹ / ₁₆ | N/A | N/A | 250 | 9 ¹³ / ₁₆ | 320 | 12 ⁵ / ₈ | N/A | N/A | N/A | N/A | N/A | N/A |
| | Tw | 318 | 12 ¹ / ₂ | 329 | 12 ¹⁵ / ₁₆ | 340 | 13 ³ / ₈ | 352 | 13 ¹³ / ₁₆ | 393 | 15 ¹ / ₂ | 423 | 16 ⁵ / ₈ | 443 | 17 ⁷ / ₁₆ |
| | Th | 232 | 9 ¹ / ₈ | 244 | 9 ⁵ / ₈ | 265 | 10 ³ / ₈ | 285 | 11 ¹ / ₄ | 360 | 14 ³ / ₁₆ | 415 | 16 ⁵ / ₁₆ | 413 | 16 ¹ / ₄ |
| | R | 78 | 3 ¹ / ₁₆ | 89 | 3 ¹ / ₂ | 100 | 3 ¹⁵ / ₁₆ | 112 | 4 ⁷ / ₁₆ | 140 | 5 ¹ / ₂ | 170 | 6 ¹¹ / ₁₆ | 203 | 8 |

- Notes:**
- L1 is for flanged ANSI #150 and ISO PN16.
 - L2 is for threaded female, NPT or BSP.
 - L4 is for grooved end connections.
 - Provide adequate space around valve for maintenance.
 - Data is for envelope dimensions, specific component positioning may vary.

Connection Standard

- Flanged: ANSI B16.42 (Ductile Iron), B16.5 (Steel & Stainless Steel), B16.24 (Bronze), ISO PN16
- Threaded: NPT or BSP for 2, 2½ & 3"
- Grooved: ANSI/AWWA C606 for 2, 3, 4 & 6"

Water Temperature

- 0.5 – 50°C (33 – 122°F)

Manufacturers Standard Materials

Main valve body and cover

- Ductile Iron ASTM A-536

Main valve internals

- Stainless Steel 304 & Cast Iron

Control Trim System

- Brass control components/accessories
- Forged Brass fittings & Copper tubing

Elastomers

- Nylon fabric reinforced polyisoprene

Coating

- Electrostatic Power Coating Polyester
- Red (RAL 3000)

Available Sizes

- Globe: 2, 2½, 3, 4, 6, 8, 10 & 12"
- Angle: 2, 3 & 4"

Pressure Rating

- Max. working pressure: 235 psi (16 bar)

Optional Materials

Main valve body

- Carbon Steel ASTM A-216-WCB
- Stainless Steel 316
- Ni-Al-Bronze ASTM B-148

Control Trim

- Stainless Steel 316
- Monel® and Al-Bronze
- Hastalloy C-276

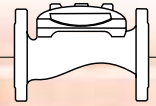
Elastomers

- NBR
- EPDM

Coating

- High Built Epoxy Fusion-Bonded with UV Protection, Anti-Corrosion





Locally Operated Monitor Valve

Model: FP 405-11



Typical Applications



Fire hydrant and monitor valves



Hydraulic remote controlled systems



Zone isolating valve



Manual operated flood valve



Hydraulically operated hydrants



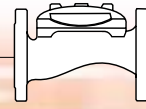
Gas & oil storage tanks

Features and Benefits

- **Quick & easy operation** – Requires only 1/4 turn of the pilot valve handle
- **One-piece vulcanized diaphragm assembly** – Reliability
- **In-line, quick cover removal** – Minimal downtime
- **Simple design** – Cost effective
- **Unobstructed flow path** – No supporting ribs

Optional Features

- **Seawater service** (add FS as prefix to model)
- **Corrosive environment materials** (see last page)
- **Foam resistant materials and coatings**
- **Remote hydraulic control**



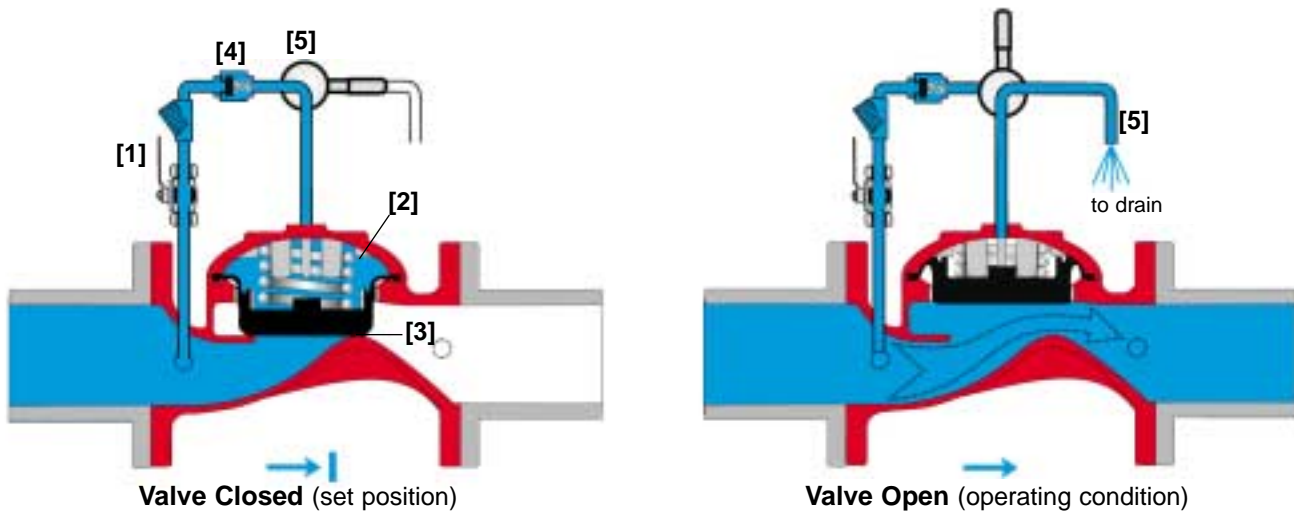
Operation

The BERMAD Model 405-11 is a simply designed, manually operated, on/off valve. It is particularly suited for monitors and industrial high capacity hydrants.

The Model 405-11 is held closed by line pressure [1] applied to the control chamber [2] of the valve. The closed valve prevents the water (or water foam) from passing through the valve, keeping the downstream piping dry.

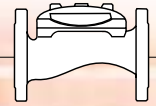
In the closed position, the line pressure is applied to the control chamber of the valve. The pressure holds the main valve's diaphragm and plug against the valve seat [3]. Sealing is drip tight. The Check Lock [4] traps high pressure peaks ensuring that the valve remains locked in the closed position to maintain drip tight sealing.

To open, a 1/4 turn of the Manual Release Pilot [5] handle releases pressure from the control chamber through the opened Manual Release Pilot. The diaphragm plug is then pushed open by the opening force at its bottom, allowing water to flow into the system.



Engineer Specifications

- The valve shall be a hydraulic controlled, elastomeric type globe valve with a **rolling-diaphragm**.
- The valve shall have an **unobstructed flow path**, with no stem guide or **supporting ribs**.
- Valve actuation shall be accomplished by a fully peripherally supported, one-piece balanced rolling-diaphragm, vulcanized with metal insert. The diaphragm assembly shall be the only moving part.
- The valve shall have a removable cover for quick in-line service enabling all necessary inspection and servicing.
- The control trim shall consist of non-corrosive tubing and fittings, Manual Release Pilot, Check Valve and Y strainer.
- The Trim shall be supplied as an assembly, pre-assembled and hydraulically tested at an ISO 9000 & 9001 certified factory.



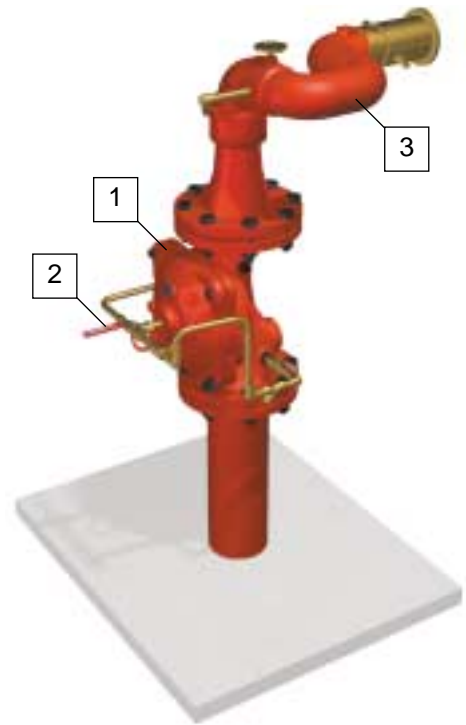
Local Manually Operated

Monitor Valve Model FP-405-11

This line pressure powered on/off valve replaces mechanical valves that often stick after long periods in the closed position. This valve is built to react smoothly and easily following any passage of time, from either the closed or open position.

System Components

- 1 - Main Valve, Bermad Model FP-405-11
- 2 - Manual Release Pilot
- 3 - Fire Monitor



Remote manually operated

Monitor Valve Model FP-400E-5X

Monitors located in hazardous areas should be operated from a remote panel in order to ensure their safe activation under fire conditions.

Applying the Bermad Model FP-400E-5X to control Oscillating, Elevated and Pre-cooling spraying Monitors ensures quick response to any situation by an easy 1/4 turn of the valve remoted pilot handle.

System Components

- 1 - Main Valve, BERMAD FP-400E-5X
- 2 - Remote Manual Release Pilot
- 3 - Remote Fire Monitor

Note: Graphics are for illustration only