

Adjustable Universal Relay Valve with Latching Mechanism

Model URV-2-MA

The BERMAD URV-2-MA is a Normally Open 2-way balanced poppet type, pressure operated and diaphragm actuated latching relay pilot valve, with an Adjustable Head return spring.

The URV changes its position from open to close in response to pressure being supplied to its control chamber. Once open the latching mechanism holds the URV open, regardless of a return of control pressure. Only after being manually and locally reset with a simultaneous return of control pressure will the URV close.

The URV pilot valve is a relay device designed for use with BERMAD Deluge Valves. Its function is to actuate the BERMAD main valve upon a release of pressure from the URV control chamber.

The URV-2-MA is equipped with an adjustable lower spring to compensate for water column head that is experienced in wet pilot lines situated above the valve.

The URV-2-MA is suitable for pilot lines situated between 10 to 70 metres above the valve.

The URV's balanced-poppet design enables safe reliable operation with high accuracy using compact dimensions. The URV is specifically designed for Fire Safety systems in that it has no mechanical friction of the internal parts, greatly increasing reliability. This also makes it ideal for use with corrosive fluids such as firewater, brackish water or seawater.



(for Illustration Only)

Features and Benefits

- **Column Compensating:** Adjustable spring allows wet pilot line height of up to 70 metres.
- **Frictionless operation:** The diaphragm sealed main shaft offers increased safety and reliability, well suited for use with sea-water and corrosive fluids.
- **Balanced Poppet Shaft:** Enables a low control pressure, regardless of water line supply pressure.
- **Heavy duty construction:** suitable for on-shore as well as the harsh conditions of offshore facilities.
- **Corrosion resistant construction materials**

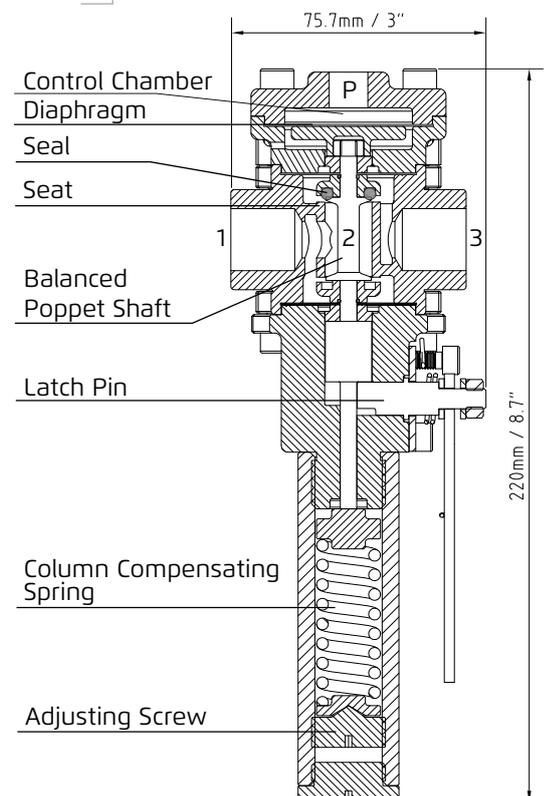
Technical Data

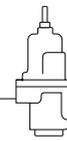
- **Pressure Rating:** 25 bar/360 psi
- **Setting Range:** 10 to 70m/33 to 230ft
- **Temperature Rating:** 80°C/180°F
- **Flow Factor:** Kv 1.5/Cv 1.7
- **Port Connections:** Line pressure ½" NPT Control ¼" NPT
- **Weight:** 1.6kg/3.5lbs

Standard Materials

- **Body:** Stainless steel 316, CF8M
- **Wetted Parts:** Stainless steel 316
- **Covers (dry parts):** Stainless steel 316, CF8M
- **Elastomers:** NBR (Buna-N)

*Other materials available see code designations





Operation

The URV-2-MA utilizes a control chamber and three operational ports 1, 2 & 3

Actuation or position change is achieved by applying or releasing control pressure to the Control Port (P)

Releasing control pressure will open the URV-2-MA, and it will latch in this position.

Resetting or de-latching the URV-2-MA (typically to reclose the main valve) requires that the latch handle be rotated as indicated on the handle and pressure to be returned to the control chamber (P).

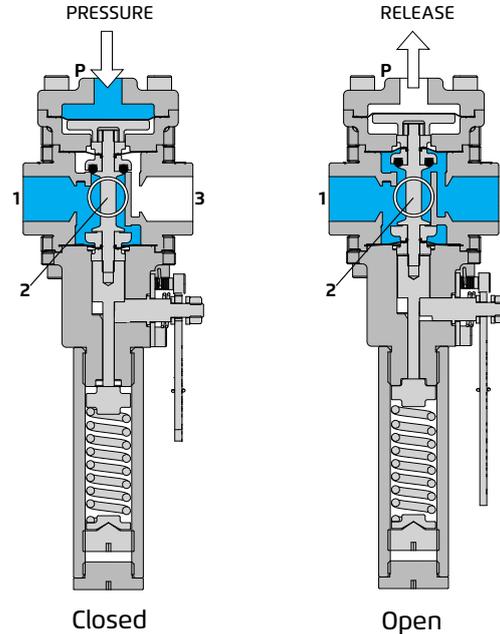
Connections

Flow direction through the URV can be:

“Straight” from port 1 to port 3 or vice versa from port 3 to port 1

or

“Angular” at 90° from port 2 to port 3 or vice versa from port 3 to port 2.

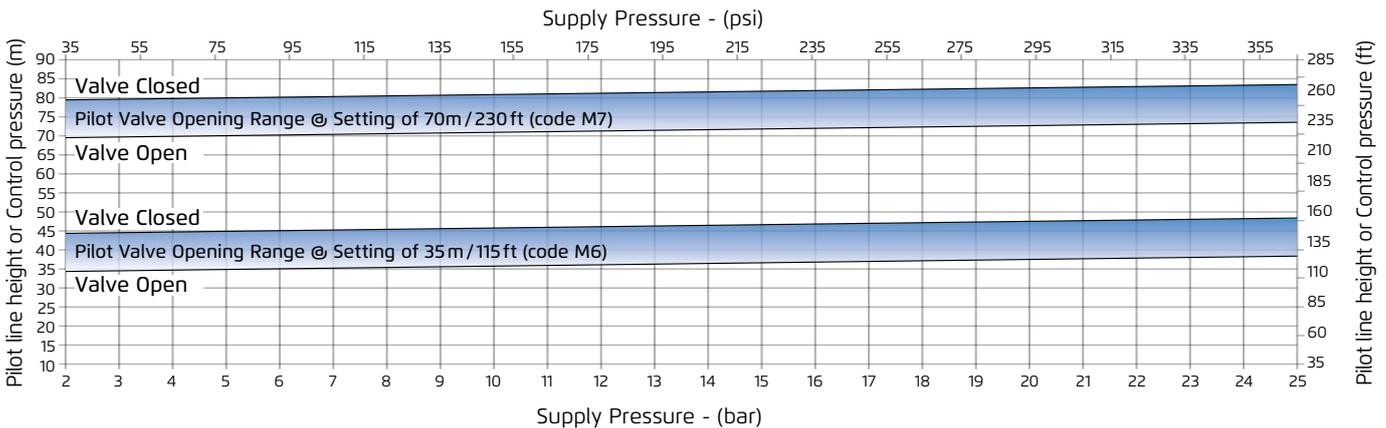


Closed
Control Chamber Pressurized
Supply pressure to port 1 or port 2

Open
Control Chamber
Depressurized

Configuration	Function	Port	Symbol
Straight Flow	Supply / Outlet	1 → 3 3 → 1	
	Control	P	
Angle Flow	Supply / Outlet	2 → 3 3 → 2	
	Control	P	

Supply Pressure / Pilot Line Height



Model Codes and Material Options

Material Options		
Model Code	Body & Shaft (wetted)	Actuator / Covers (dry)
URV-2-MA-N-N	Stainless Steel 316	Stainless Steel 316
URV-2-MA-U-N	Ni.Aluminium Bronze (Shaft Monel)	Stainless Steel 316

*For other material options contact BERMAD

