QUICK PRESSURE RELIEF VALVE

Model IR-23Q-2W

The BERMAD Model IR-23Q-2W is a hydraulically operated, diaphragm actuated control valve designed to relief excessive line pressure when it rises above the preset maximum. It responds to rises in system pressure immediately, accurately and with high repeatability, by opening fully. The BERMAD Model IR-23Q-2W provides smooth drip tight closing. *This valve is designated for irrigation use only and not for other uses! Manufacturer warranty is limited to the permitted use only.

Features & Benefits

- Hydraulic Control Valve
  - Line pressure driven
  - Short response time
  - Long term drip tight sealing
- Composite Hydro-Efficient Globe Valve
  - Unobstructed flow path
  - Single moving part
  - Highly durable, chemical and cavitation resistant
- Unitized Flexible Diaphragm and Guided Plug
  - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
  - Requires low actuation pressure
- User-Friendly Design
  - Simple in-line inspection and service

Typical Applications

- System Burst Protection
- Momentary Pressure Peak Elimination
- System Failure Visual Indication
- Filter Burst Protection

[1] BERMAD Model IR-23Q-2W protects system from pressure spikes.
[2] Filter Backwash Hydraulic Valve Model IR-350

Operation:

The Pressure Relief Pilot [1] commands the valve to open immediately should the upstream pressure [P1] abruptly rise above pilot setting, and to close smoothly when it falls below pilot setting, sealing drip tight. The Cock Valve [2] enables manual operating test.

All images in this catalog are for illustration only
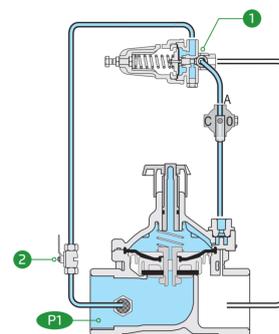
Technical Data

Pressure Rating:
10 bar

Operating Pressure Range:
0.7-10 bar

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NBR

Spring:
Stainless Steel
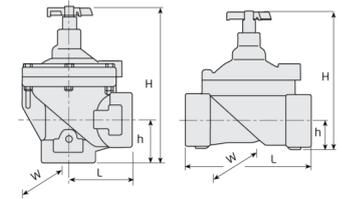
Control Loop Accessories

PS Pilot: PC-3Q-A-P

Pilot Spring Range:

Spring	Spring Color	Setting range
V	Blue & White	1.0-10.0 bar

Tubing and Fittings:
Polyethylene and
Polypropylene

Technical Specifications

For other end connection types,
Please refer to BERMAD full engineering page.

Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	Globe	Threaded	1	160	180	35	125	0.072	37
1½" ; DN40	Angle	Threaded	0.95	80	190	40	125	0.072	41
2" ; DN50	Globe	Threaded	1.1	170	190	38	125	0.072	47
2" ; DN50	Angle	Threaded	0.91	85	210	60	125	0.072	52

CCDV = Control Chamber Displacement Volume

Flow Chart
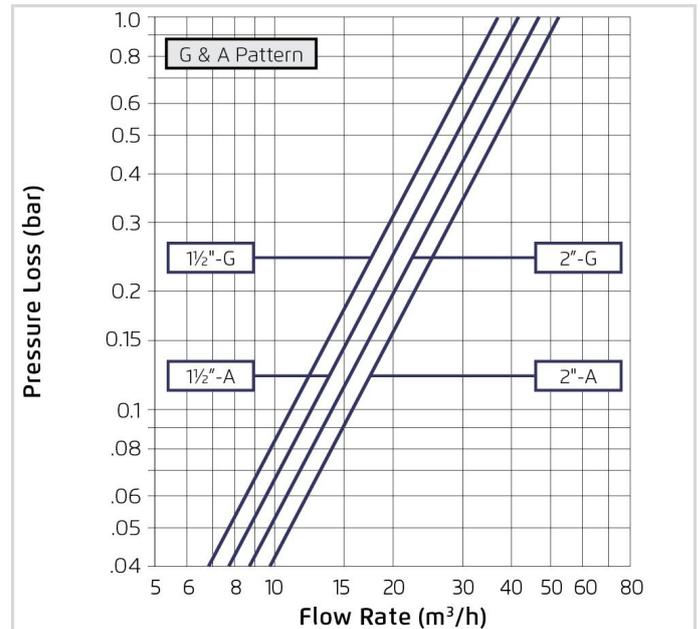
2-Way circuit "Added Head Loss" (for "V" below 2 m/s): 0.3 bar

Differential Pressure & Flow Calculation

$$\Delta P = \left(\frac{Q}{Kv}\right)^2$$

Kv = m³/h @ ΔP of 1 bar
Q = m³/h
ΔP = bar