



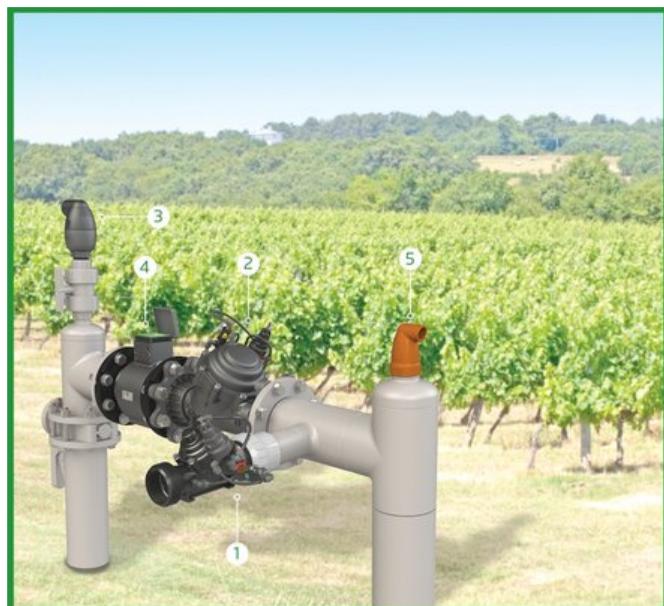
QUICK PRESSURE RELIEF VALVE

With Flow Stem

Model IR-13Q-2W-M

The BERMAD Model IR-13Q-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-13Q-2W provides smooth drip tight closing.



[1] BERMAD Model IR-13Q-2W protects system from pressure spikes.

[2] Pressure Reducing Valve Model IR-120-55-X

[3] Combination Air Valve Model IR-C10

[4] Electromagnetic Water Meter Model M10

[5] Kinetic Air Valve Model IR-K10

Features & Benefits

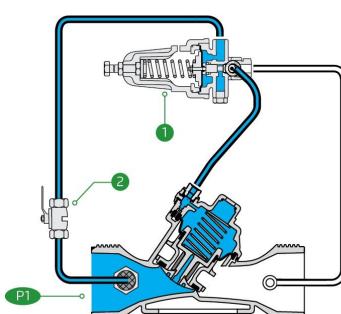
- Hydraulic Control Valve
 - Line pressure driven
 - Short response time
 - Long term drip tight sealing
- Engineered Composite Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity at low pressure loss
- Unitized "Flexible Super Travel" (FST) Diaphragm and Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
 - Simple in-line inspection and service

Typical Applications

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

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.





Technical Data

Pressure Rating:

10 bar

Operating Pressure Range:

0.5-10 bar

Materials

Body & Cover:
 Polyamide 6 & 30% GF

Diaphragm:
 NR, Nylon fabric reinforced

Spring:
 Stainless Steel

Control Loop Accessories

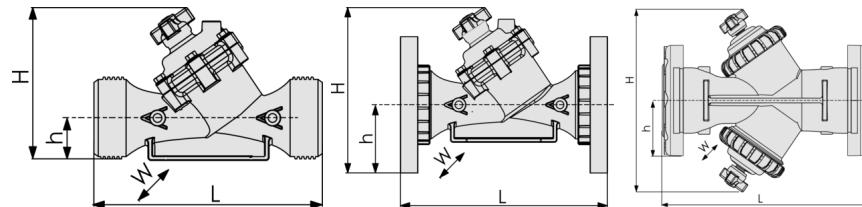
PS Pilot: PC-3Q-A-P

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 patterns and end connection types,
 Please refer to [BERMAD](#) full engineering page.


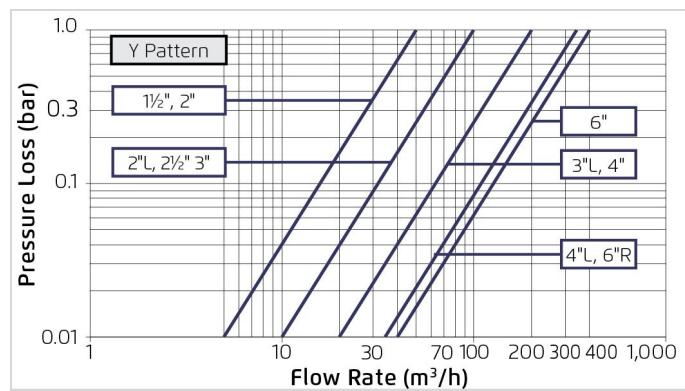
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	Oblique	Threaded	1.1	200	173	40	97	0.12	50
2" ; DN50	Oblique	Threaded	1.2	230	173	40	97	0.12	50
2½" ; DN50L	Oblique	Threaded	1.5	230	187	43	135	0.15	100
2½" ; DN65	Oblique	Threaded	1.5	230	187	43	135	0.15	100
3" ; DN80	Oblique	Threaded	1.6	298	199	55	135	0.15	100
3" ; DN80	Oblique	Plastic Flanges	2.5	308	244	100	200	0.15	100
3" ; DN80	Oblique	Metal Flanges	4.4	308	244	100	200	0.15	100
3½" ; DN80L	Oblique	Threaded	3	298	278	60	168	0.62	200
3½" ; DN80L	Oblique	Plastic Flanges	3.7	308	317	100	200	0.62	200
3½" ; DN80L	Oblique	Metal Flanges	4.6	308	317	100	200	0.62	200
4" ; DN100	Oblique	Plastic Flanges	4.6	350	329	112	224	0.62	200
4" ; DN100	Oblique	Metal Flanges	7.4	350	329	112	224	0.62	200
4" ; DN100L	Oblique	Plastic Flanges	9.2	442	340	112	226	1.15	340
4" ; DN100L	Oblique	Metal Flanges	11.2	442	340	112	226	1.15	340
6"R ; DN150R	Oblique	Metal Flanges	16.5	470	377	149	287	1.15	340
6" ; DN150	Boxer	Grooved	11	480	387	100	475	2x0.62	400
6" ; DN150	Boxer	Plastic Flanges	12.5	504	387	143	475	2x0.62	400

CCDV = Control Chamber Displacement Volume • **Threaded** = BSP & NPT are available. External thread is available for 2" and 2½" only. • Other End Connections are available on request. For dimensions and weights of adapters or valves with adapters please consult with customer service.

Additional Features

Code	Description	Size Range
5	Plastic Test Point	1½"-4" / DN40-100
V3	Victaulic PVC Adaptors 3"	3" / DN80
V4	Victaulic PVC Adaptors 4"	4" / DN100

Flow Chart



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

Differential Pressure & Flow Calculation

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

$Kv = m^3/h @ \Delta P \text{ of 1 bar}$
 $Q = m^3/h$
 $\Delta P = \text{bar}$