

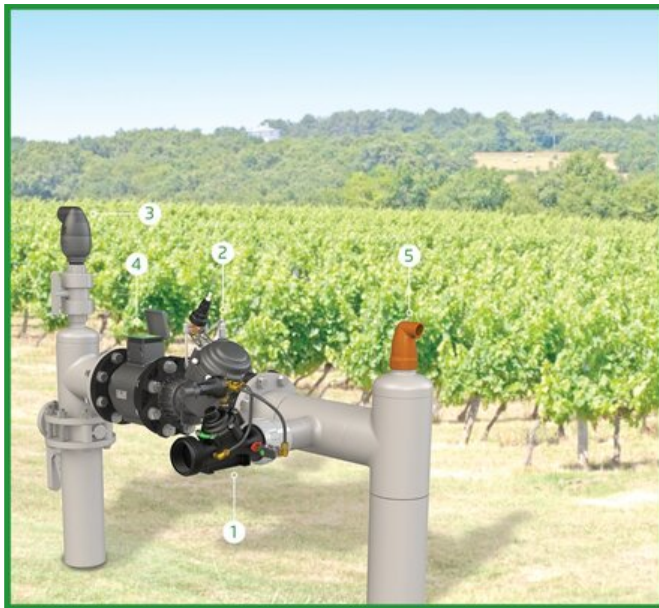


QUICK PRESSURE RELIEF VALVE

For High Pressure

Model IR-13Q-HP-2W

The BERMAD Model IR-13Q-HP-2W is a hydraulically operated, diaphragm actuated control valve designed to relieve 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-HP-2W provides smooth drip tight closing.



- [1] BERMAD Model IR-13Q-HP-2W protects system from pressure spikes.
- [2] Pressure Reducing Valve Model IR-120-50-HP-3W-XZ
- [3] Combination Air Valve Model IR-C10
- [4] Electromagnetic Water Meter Model M10
- [5] Kinetic Air Valve Model IR-K10

Features & Benefits

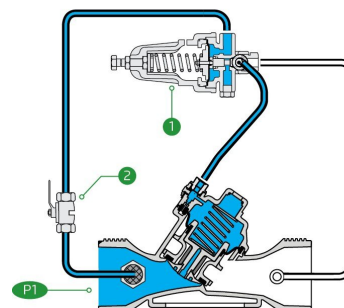
- Hydraulic Control Valve
 - Line pressure driven
 - Short response time
 - Long term drip tight sealing
- Engineered Composite Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look 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:

16 bar

Operating Pressure Range:

0.5-16 bar

Materials

Body & Cover:

Reinforced Polyamide

Diaphragm:

EPDM

Spring:

Stainless Steel

Control Loop Accessories

PS Pilot: PC-3Q-A-MP

Pilot Spring Range:

Spring	Spring Color	Setting range
V	Blue & White	1.0-10.0 bar
P	White	1.0-16.0 bar

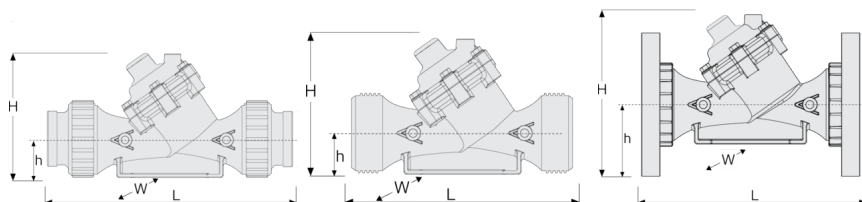
Standard spring - marked in bold

Tubing and Fittings:

Reinforced Nylon and Brass

Technical Specifications

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



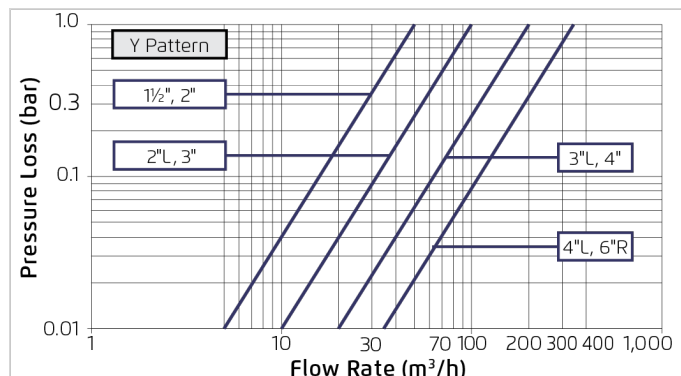
Size	Pattern	End Connection	Weight (Kg)	L (mm)	H (mm)	h (mm)	W	CCDV (Lit)	KV
1½" ; DN40	Oblique	Threaded	1.2	200	172	40	97	0.12	50
2" ; DN50	Oblique	Threaded	1.3	230	172	40	97	0.12	50
2" ; DN50	Oblique	Grooved	1.4	284	172	40	97	0.12	50
2"L ; DN50L	Oblique	Threaded	1.6	230	172	43	135	0.15	100
2"L ; DN50L	Oblique	Grooved	1.7	284	172	43	135	0.15	100
3" ; DN80	Oblique	Threaded	1.8	298	181	55	135	0.15	100
3" ; DN80	Oblique	Grooved	1.9	384	188	62	135	0.15	100
3" ; DN80	Oblique	Metal Flanges	4.6	308	226	100	200	0.15	100
3"L ; DN80L	Oblique	Threaded	3.3	298	243	60	168	0.62	200
3"L ; DN80L	Oblique	Grooved	3.4	384	245	62	168	0.62	200
3"L ; DN80L	Oblique	Metal Flanges	6.1	310	282	100	200	0.62	200
4" ; DN100	Oblique	Grooved	4.1	384	245	62	168	0.62	200
4" ; DN100	Oblique	Metal Flanges	7.8	350	294	112	224	0.62	200
4"L ; DN100L	Oblique	Grooved	7.3	400	313	84	226	1.15	340
4"L ; DN100L	Oblique	Metal Flanges	11.2	442	340	112	226	1.15	340
6"R ; DN150R	Oblique	Metal Flanges	18.2	470	377	149	287	1.15	340

CCDV = Control Chamber Displacement Volume • Threaded = BSP & NPT are available.

Additional Features

Code	Description	Size Range
6	Pressure Gauge up to 16 bar ¼" male connector	1½"-6"R / DN40-150R

Flow Chart



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

Differential Pressure & Flow Calculation

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

$K_v = m^3/h$ @ ΔP of 1 bar

$Q = m^3/h$

$\Delta P = bar$