

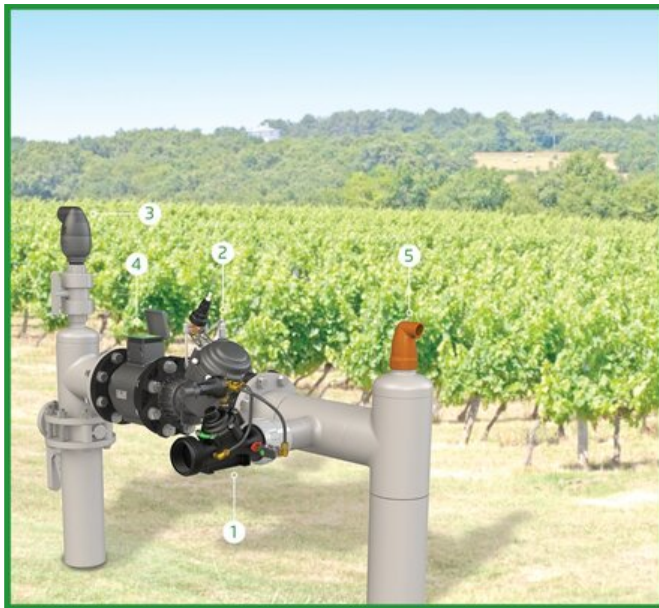


QUICK PRESSURE RELIEF VALVE

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

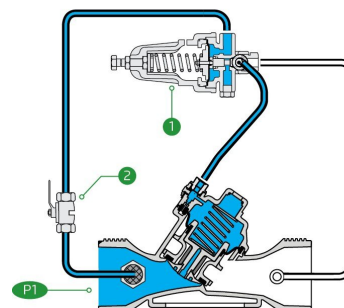
- Hydraulic Control Valve
 - Line pressure driven
 - Short response time
 - Long term drip tight sealing
- Engineered Composite Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look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

Operating Pressure Range:
7-250 psi

Materials

Body & Cover:
Reinforced Polyamide

Diaphragm:
EPDM

Spring:
Stainless Steel

Control Loop Accessories

PS Pilot: PC-3Q-A-MP

Pilot Spring Range:

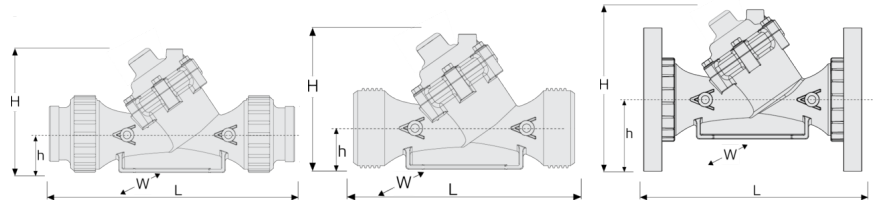
Spring	Spring Color	Setting range
V	Blue & White	15-150 psi
P	White	15-230 psi

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.



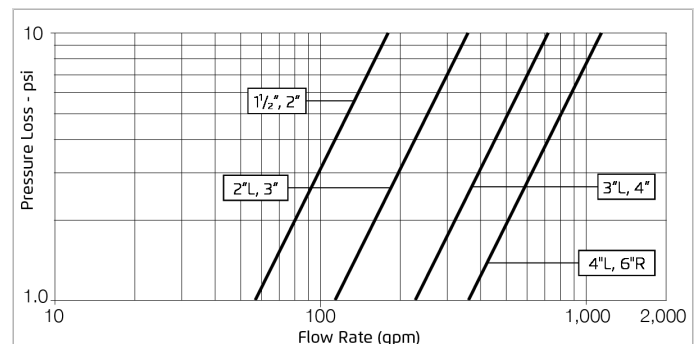
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	Oblique	Threaded	2.6	7¾	6¾	1¾	3¾	0.026	58
2" ; DN50	Oblique	Threaded	2.9	9¾	6¾	1¾	3¾	0.026	58
2" ; DN50	Oblique	Grooved	3.1	11¼	6¾	1¾	3¾	0.026	58
2"L ; DN50L	Oblique	Threaded	3.6	9¾	6¾	1¾	5¾	0.033	116
2"L ; DN50L	Oblique	Grooved	3.8	11¼	6¾	1¾	5¾	0.033	116
3" ; DN80	Oblique	Threaded	4	11¾	7½	2¼	5¾	0.033	116
3" ; DN80	Oblique	Grooved	4.1	15½	7½	2¼	5¾	0.033	116
3" ; DN80	Oblique	Metal Flanges	10	12¾	8¾	4	7¾	0.033	116
3"L ; DN80L	Oblique	Threaded	7.3	11¾	9¾	2¾	6¾	0.136	231
3"L ; DN80L	Oblique	Grooved	7.5	15½	9¾	2¾	6¾	0.136	231
3"L ; DN80L	Oblique	Metal Flanges	13.5	12¾	11¾	4	7¾	0.136	231
4" ; DN100	Oblique	Grooved	9	15½	9¾	2¾	6¾	0.136	231
4" ; DN100	Oblique	Metal Flanges	17.2	13¾	11¾	4½	8¾	0.136	231
4"L ; DN100L	Oblique	Grooved	16.1	15¾	12¾	3¾	9	0.253	393
4"L ; DN100L	Oblique	Metal Flanges	24.7	17½	13¾	4½	9	0.253	393
6"R ; DN150R	Oblique	Metal Flanges	40.1	18½	14¾	5¾	11¾	0.253	393

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

Flow Chart



2-Way circuit "Added Head Loss" (for "V" below 6.5 f/s): 4.5 psi

Differential Pressure & Flow Calculation

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

C_v = gpm @ ΔP of 1 psi
 Q = gpm
 ΔP = psi