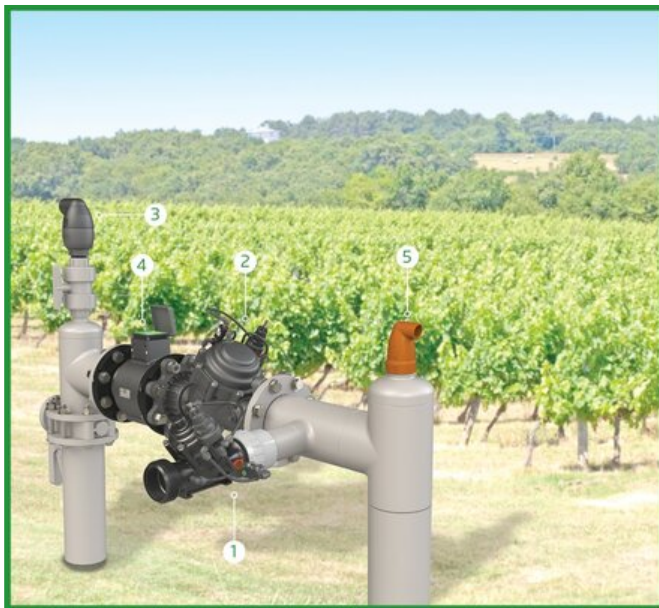


QUICK PRESSURE RELIEF VALVE - DOUBLE CHAMBER

Model IR-13Q-DC-2W

The BERMAD Model IR-13Q-DC-2W is a double chambered, 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-DC provides smooth drip tight closing. The Double Chamber Valve is a high performance valve, specially designed for quick response and challenging regulation requirements.



- [1] BERMAD Model IR-13Q-DC-2W protects system from pressure spikes.
- [2] Pressure Reducing Valve Model IR-120-55-X
- [3] Combination Air Valve Model IR-C10
- [4] Electromagnetic Flow Meter
- [5] Kinetic Air Valve Model IR-K10

Features & Benefits

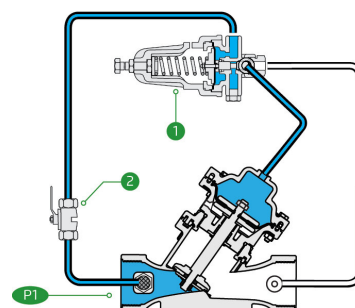
- Hydraulic Control Valve
 - Line pressure driven
 - Short response time
 - Long term drip tight sealing
- Engineered Composite Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection
 - Highly durable, chemical and cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity at low pressure loss
- Double Chamber Design
 - Full powered opening and closing
 - Decreased pressure loss
 - Low throttling noise
 - Non-slam closing characteristic
 - Protected diaphragm
- User-Friendly Design
 - Simple in-line inspection and service

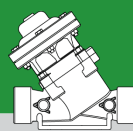
Typical Applications

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

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:
150 psi

Operating Pressure Range:
7-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NR, Nylon fabric reinforced

Spring:
Stainless Steel

Control Loop Accessories

PS Pilot: PC-3Q-A-P

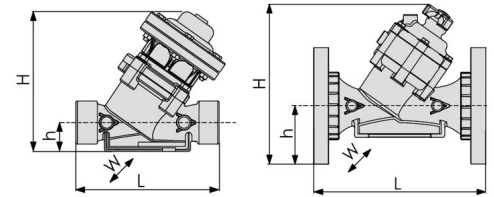
Pilot Spring Range:

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

Tubing and Fittings:
Polyethylene and Polypropylene

Technical Specifications

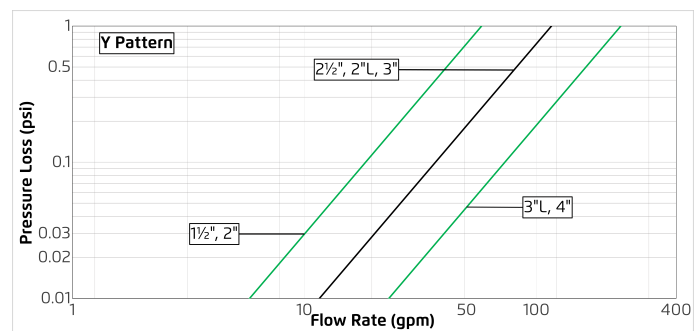
For other patterns and end connection types,
Please refer to [BERMAD](#) full engineering page.



Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	"Y" (globe)	Threaded	4	7⅞	7⅞	1⅞	5	0.034	58
2" ; DN50	"Y" (globe)	Threaded	4	9⅞	7⅞	1⅞	5	0.034	58
2"L ; DN50L	"Y" (globe)	Threaded	4.9	9⅞	8⅞	1⅞	5⅞	0.045	116
2½" ; DN50L	"Y" (globe)	Threaded	4.9	9⅞	8⅞	1⅞	5⅞	0.045	116
3" ; DN80	"Y" (globe)	Threaded	5	11⅞	9⅞	2⅞	5⅞	0.045	116
3" ; DN80	"Y" (globe)	Plastic Flanges	7.1	12⅞	11	4	7⅞	0.045	116
3" ; DN80	"Y" (globe)	Metal Flanges	11	12⅞	11	4	7⅞	0.045	116
3"L ; DN80L	"Y" (globe)	Threaded	13.1	13⅞	14	2⅞	8⅞	0.15	231
3"L ; DN80L	"Y" (globe)	Plastic Flanges	14.3	13⅞	15⅞	4	8⅞	0.15	231
3"L ; DN80L	"Y" (globe)	Metal Flanges	16.3	13⅞	15⅞	4	8⅞	0.15	231
4" ; DN100	"Y" (globe)	Plastic Flanges	16.8	14⅞	16	4½	8⅞	0.15	231
4" ; DN100	"Y" (globe)	Metal Flanges	21	14⅞	16	4½	8⅞	0.15	231

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.

Flow Chart



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

Differential Pressure & Flow Calculation

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

Cv = gpm @ ΔP of 1 psi

Q = gpm

ΔP = psi