BERMAD

400 Series

Pressure Relief

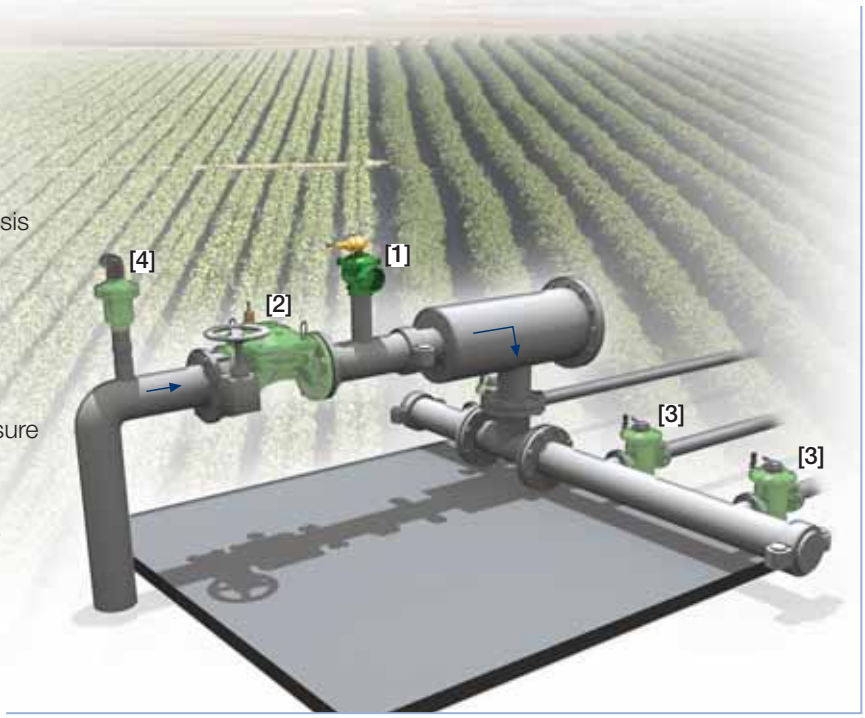
Quick Pressure Relief Valve

IR-43Q-R

The BERMAD Quick Pressure Relief Valve is a hydraulically operated, diaphragm actuated control valve that relieves excessive line pressure when it rises above the preset maximum. It responds to a rise in system pressure immediately, accurately and with high repeatability, by opening fully. The BERMAD Model IR-43Q-R provides smooth drip tight closing.

Features and Benefits

- Hydraulic Pressure Control
  - Line pressure driven
  - Long term drip tight sealing
  - Long term setting stability
  - Wide setting range
  - Tight setting window with minimal hysteresis
- Advanced Globe Hydro-Efficient Design
  - Unobstructed flow path
  - Single moving part
  - High flow capacity
- Fully Supported & Balanced Diaphragm
  - Requires low opening and actuation pressure
  - Progressively restrains valve closing
  - Prevents diaphragm distortion
  - Excellent low-flow regulation performance
- User-Friendly Design
  - Easy pressure setting
  - 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-43Q-R protects filter and system from over pressure.
[2] BERMAD Pressure Reducing Valve Model IR-420-R
[3] BERMAD Hydrometer with Solenoid Control Model IR-910-M0-X
[4] BERMAD Air Valve Model ARC-A-I-I

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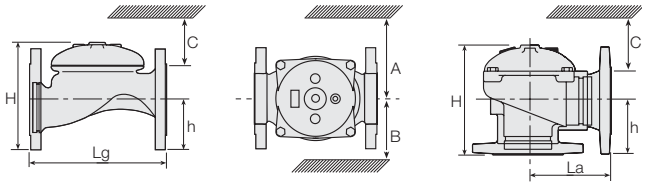
For full technical details, refer to Engineering Section.

Technical Specifications

Dimensions and Weights

Pattern		Globe						Angle				
Connections		Threaded					Fl.	Threaded				Fl.
Size	DN / Inch	40 1½"	50 2"	65 2½"	80R 3"R	80 3"	100 4"	50 2"	65 2½"	80R 3"R	80 3"	100 4"
Lg	mm	153	180	210	210	255	320	N.A.	N.A.	N.A.	N.A.	N.A.
	inch	6	7.1	8.3	8.3	10.0	12.6	N.A.	N.A.	N.A.	N.A.	N.A.
La	mm	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	86	110	110	110	160
	inch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3.4	4.3	4.3	4.3	6.3
H	mm	87	114	132	140	165	242	136	180	178	184	223
	inch	3.4	4.5	5.2	5.5	6.5	9.5	5.4	7.1	7	7.2	8.8
C	mm	52	68	80	84	100	145	82	108	107	110	134
	inch	2	2.7	3.1	3.3	3.9	5.7	3.2	4.2	4.2	4.3	5.3
h	mm	29	39	45	53	55	112	61	93	91	80	112
	inch	1.1	1.5	1.8	2.1	2.2	4.4	2.4	3.7	3.6	3.1	4.4
A; B	mm	130	130	130	140	175	312	130	130	140	175	312
	inch	5	5	5	6	7	12.3	5.1	5.1	5.5	6.9	12.3
Weight	Kg	2	4	5.7	5.8	13	28	4.4	5.8	7	11	26
	lb.	4.4	8.8	12.6	12.8	28.7	61.7	9.7	12.8	15.4	24.3	57.3



Technical Data

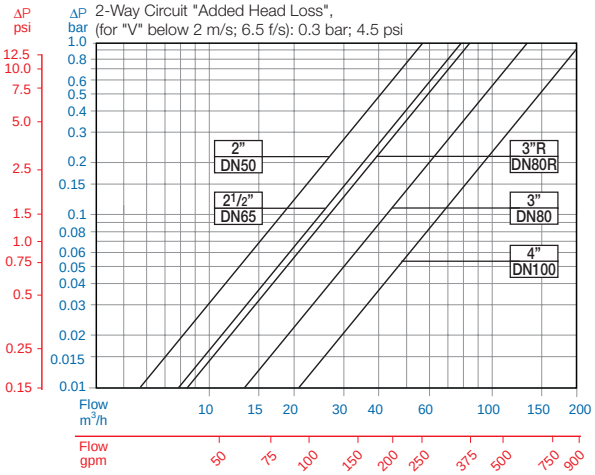
Patterns and Sizes: Globe: 1½-16"; DN40-400 Angle: 3-4"; DN80-100

End connections:

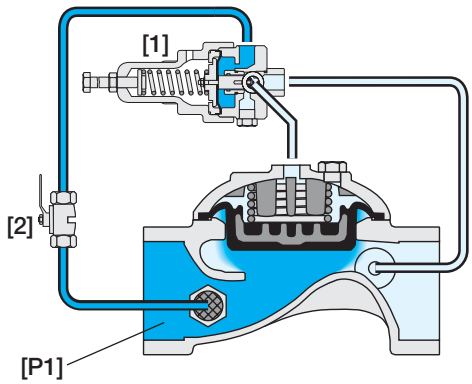
Size		1½" DN40	2" DN50	2½" DN65	3"R DN80R	3" DN80	4" DN100
Threaded	Globe	■	■	■	■	■	
	Angle		■	■		■	
Flanged	Globe		■	■	■	■	■
	Angle		■			■	■
Grooved	Globe		■			■	■
	Angle					■	■

Pressure Rating: 16 bar; 232 psi
Operating Pressure Range: 0.5-16 bar; 7-232 psi
For lower pressure requirements, consult factory
Setting Range: 1-10 bar; 15-232 psi
Setting ranges vary according to specific pilot spring. Please consult factory.

Flow Chart



Operation



The Pressure Relief Pilot **[1]** commands the Valve to open immediately should the Upstream Pressure **[P1]** abruptly rise above setting, and to close smoothly when it falls below setting.
The Vented Cock Valve **[2]** enables manual operating tests.

How to Order

Please specify the requested valve in the following sequence: (for more options, refer to Ordering Guide.)

Sector	Size	Primary Feature	Additional Feature	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage -Main Valve Position	Tubing & Fittings	Additonal Attributes
IR	1½-16"	43Q	00	-	A	I	BP	PG	-	PB	R

Other sizes available on request.

Globe	G
Angle (up to 4"; DN100)	A

Cast Iron (up to 8"; DN200)	I
Ductile Iron (10"; DN250 & above)	C

BSP (3"; DN80 only)	BP
NPT (3"; DN80 only)	NP
ISO-16	16
ISO-10	10
IS 14 (ISO 10/4 Holes)	14
ANSI-125	A1
ANSI-150	A5
JIS-10	J1
BST-D	BD
Grooved (3-6" DN80-150 only)	VI

Other end connections available on request

Plastic Tubing & Brass Fittings	PB
Copper Tubing & Brass Fittings	CB

Metal Control Accessories	R

(1) Standard Irrigation Cover & Diaphragm are unfitted to Attributes I, M.
Other attributes available on request.