

Pressure Reducing Automatic Metering Valve (AMV)

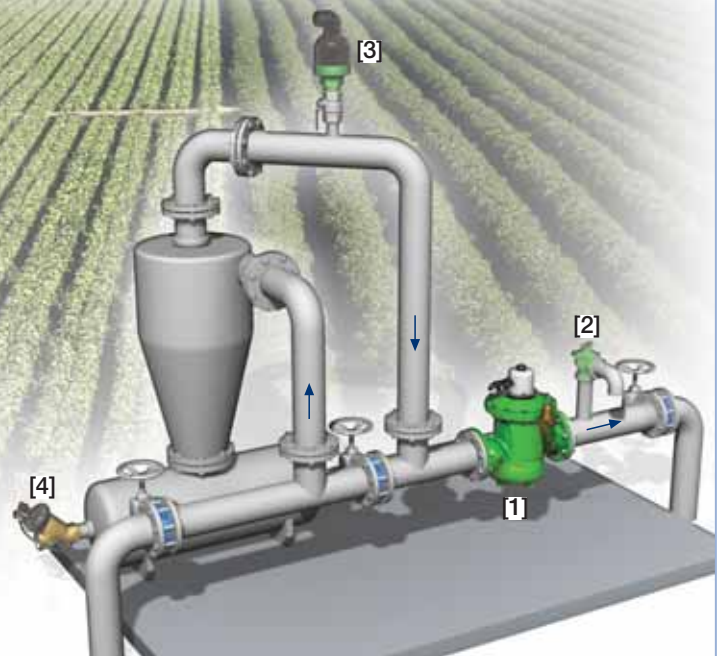
IR-920-D2-R

The BERMAD Pressure Reducing Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. Equipped with a Shut-Off Pilot and a Pressure Reducing Pilot, the BERMAD IR-920-D2-R reduces higher upstream pressure to lower constant downstream pressure. It automatically shuts itself after accurately delivering a preset quantity of water.



Features and Benefits

- Integrated "All-in-One" Control Valve
 - ▢ Saves space, cost and maintenance
- Easy Modification to Mechanical Drive Hydrometer
 - ▢ Adaptable to future computerized systems
- Hydraulic Pressure and Batch Control
 - ▢ Line pressure driven
 - ▢ Protects downstream systems
 - ▢ Non-computerized quantity follow-up and control
- Internal Inlet & Outlet Flow Straighteners
 - ▢ Saves on straightening distances
 - ▢ Maintains accuracy
- Integrated Flow Metering Calibration Device
 - ▢ Measurement precision to $\pm 2\%$
- User-Friendly Design
 - ▢ Easy pressure and dose setting
 - ▢ Simple in-line inspection and service

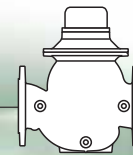


Typical Applications

- Semi-Automatic Irrigation
- Manual Irrigation intended for computerization
- Pressure Reducing Systems
- Volumetric Irrigation Systems

- [1] BERMAD Model IR-920-D2-R protects the system and delivers precise water quantity.
- [2] BERMAD Relief Valve Model IR-43Q-R
- [3] BERMAD Air Valve Model ARC-A-P-I
- [4] BERMAD Model IR-310-B

BERMAD Irrigation



IR-920-D2-R

For full technical details, refer to Engineering Section.

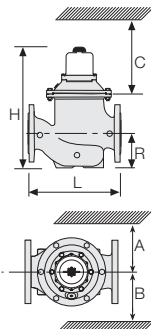
900 Series

Pressure Reducing

Technical Specifications

Dimensions and Weights

Size	DN Inch	80 3	100 4	150 6	200 8	250 10
L	mm inch	300 11.8	350 13.8	500 19.7	600 23.6	600 23.6
H	mm inch	405 15.9	470 18.5	625 24.6	640 25.2	640 25.2
C	mm inch	290 11.4	340 13.4	450 17.7	465 18.3	465 18.3
R	mm inch	123 4.8	137 5.4	216 8.5	228 9	228 9
A; B	mm inch	305 12	325 12.8	390 15.4	390 15.4	415 16.3
Weight	Kg lb.	23 57.7	31 68.3	71 156.5	93 205	141 310.9



Accuracy & Flow Data (ISO 4064-I, Class A)

Size	Accuracy	DN inch	80 3	100 4	150 6"	200 & 250 8 & 10
Q min (Minimum flow)	5%	m ³ gpm	3.2 14.1	4.8 21.1	10 44	12 52.8
Qn, ISO 4064-1 (Nominal flow)	2%	m ³ gpm	40 176	60 264	150 660	250 1100
Qper=Q3 (Permanent flow)	2%	m ³ gpm	100 440	160 704	250 1100	400 1760

Dial Options

Capacity	Cubic Meter (m³)												1000 Gallon						
	40	80	120	150	200	350	600	800	1,200	2,100	3,500	6,000	8,000	13	50	130	200		
Graduation	Cubic Meter (m³)												Gallon						
	1	1	2	2	5	10	10	20	50	100	100	100	100	100	1000	2,500	5,000		
3"	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
4"	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
6"	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
8" & 10"	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		

Technical Data

Patterns and Sizes:

Globe: 3-10"; DN80-250
Angle 90°: 3-8"; DN80-200
Angle 120°: 4"; DN100

End Connections:

Flanged: 3-10"; DN80-250

Pressure Ratings: 16 bar; 232 psi

Minimum Operating Pressure:

0.5 bar; 7 psi

For lower pressure requirements, consult factory

Setting Range: 1-10 bar; 15-145 psi

Setting ranges vary according to specific pilot spring. Please consult factory.

Materials:

Body and Cover:

Polyester Coated Cast or Ductile Iron

Internals:

St. St. & Glass Fiber Reinforced Nylon

Impeller: Polypropylene

Elastomers: Reinforced NR & NBR

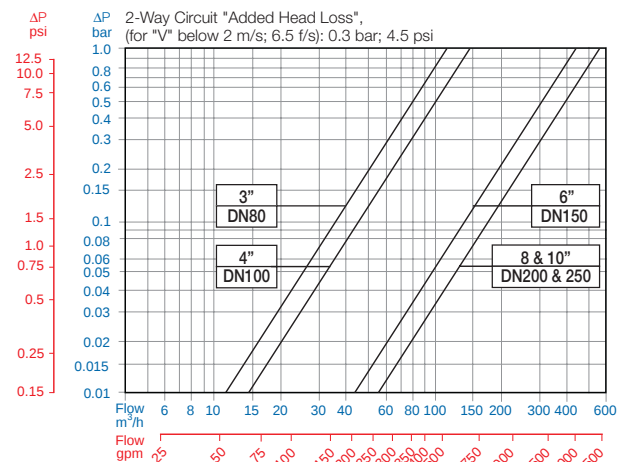
Pivots and Bearings: Tungsten Carbide

Control Accessories: Brass

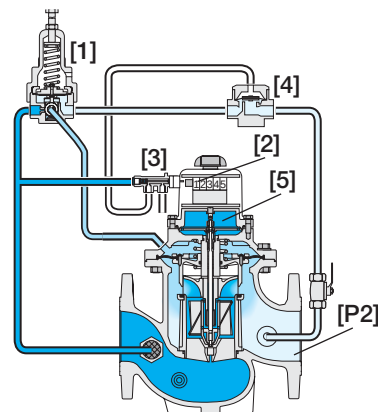
Tubing and Fittings:

Reinforced Plastic and Brass

Flow Chart



Operation



The Pressure Reducing Pilot [1] commands the AMV to throttle closed should Downstream Pressure [P2] rise above pilot setting, and modulate open when it drops below pilot setting. Upon delivering the preset quantity of water, the AMV manually preset Control Head Mechanism [2] mechanically shifts the Shut-Off Pilot [3], which closes the Hydraulic Relay Valve [4]. This pressurizes the Control Chamber [5], causing the AMV to close.

How to Order

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

Sector	Size	Primary Feature	Control Categories	Additional Feature	Pattern	Construction Materials	End Connections	Coating	Voltage & Position	Tubing & Fittings	Dial Capacity	Pulse Rate	Additional Attributes
IR	3-10"	920	D2	00	G	I	16	PG	-	PB	800	NPS	R
Other sizes available on request.													
Globe		G				Plastic Tubing & Brass Fittings	PB	40 m ³	040	6,000 m ³	6K0		R
Angle		A				Copper Tubing & Brass Fittings	CB	80 m ³	080	8,000 m ³	8K0		L
120 (4"; DN100 only)		H						120 m ³	120	13,000 Gal.	1G0		
								150 m ³	150	50,000 Gal.	5G0		
								200 m ³	200	130,000 Gal.	1KG		
								350 m ³	350	200,000 Gal.	2KG		
								600 m ³	600	510,000 Gal.	5KG		
								800 m ³	800	875,000 Gal.	8KG		
								1,200 m ³	1K0	1,300,000 Gal.	1MG		
								2,100 m ³	2K0	2,100,000 Gal.	2MG		
								3,500 m ³	3K0				
ISO-16		16											
ISO-10		10											
ISO-14 (ISO-10/4 Holes)		14											
ANSI-125		A1											
JIS-10		J1											
BST-D		BD											

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