

Automatic Metering Valve (AMV)

IR-900-D2

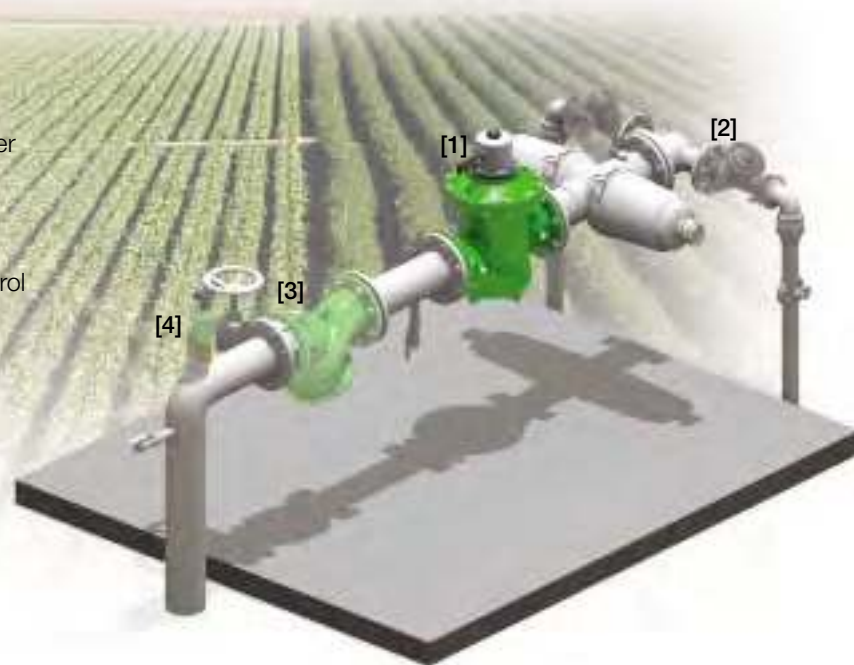
3-10"R; DN80-250R

The BERMAD Automatic Metering Valve integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot, the BERMAD IR-900-D2 enables volumetric irrigation in non-computerized systems. It automatically shuts itself off after accurately delivering a manually preset quantity of water.



Features and Benefits

- Integrated "All-in-One" Control Valve
 - Saving space, cost and maintenance
- Easy Modification to Mechanical Drive Hydrometer
 - Adaptable to future computerized systems
- Hydraulic Batch Control
 - Line pressure driven
 - Non-computerized quantity follow-up and control
- Internal Inflow & Outflow Straighteners
 - Saves on straightening distances
 - Preserves accuracy when installed vertically
- Flow Metering Calibrator
 - Measurement precision to $\pm 2\%$
- User-Friendly Design
 - Easy dose setting
 - Simple in-line inspection and service

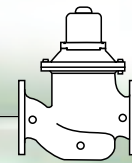


Applications Guide

- Semi-Automatic Irrigation
- Manual Irrigation - Intended for Computerization
- Distanced and/or Elevated Plots
- Water Metering

- [1] BERMAD Model IR-900-D2, Doses water quantity
- [2] BERMAD Model IR-105-Z
- [3] BERMAD Strainer Model 70F
- [4] BERMAD Air Valve Model ARC-A-I-I

BERMAD Irrigation



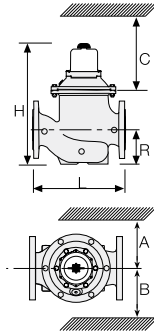
IR-900-D2 Automatic Metering Valve (AMV)

900 Series

Technical Specifications

Dimensions, and Weights

Size	DN Inch	80 3"	100R 4"	100 4"	150R 6"	150 6"	200 8"	250R 10"
L	mm inch	300 11.8	295 11.6	350 13.8	370 14.6	500 19.7	600 23.6	600 23.6
H	mm inch	405 15.9	405 15.9	470 18.5	473 18.6	625 24.6	640 25.2	640 25.2
C	mm inch	290 11.4	290 11.4	340 13.4	340 13.4	450 17.7	465 18.3	465 18.3
R	mm inch	123 4.8	123 4.8	137 5.4	140 5.5	216 8.5	228 9	228 9
A; B	mm inch	305 12	325 12.8	325 12.8	390 15.4	390 15.4	390 15.4	415 16.3
Weight	Kg lb.	23 57.7	27 59.5	31 68.3	48 105.8	71 156.5	93 205	141 310.9



Data is for Globe Flanged PN 16, Automatic Metering Valves
For full data, refer to Engineering Section.

Accuracy & Flow Data

Size	Accuracy	DN inch	80; 100R 3"; 4"R	100; 150R 4"; 6"R	150 6"	200; 250R 8"; 10"R
Q1						
Minimum Flow (AMV)	5%	m ³ gpm	3.2 14.1	4.8 21.1	10 44	12 52.8
Qn						
Nominal flow	2%	m ³ gpm	40 176	60 264	150 660	250 1100
Q3						
Permanent flow	2%	m ³ gpm	100 440	160 704	250 1100	400 1760

Dial Options

Capacity	Cubic Meter (m ³)										1000 Gallon																
	40	80	120	150	200	350	600	800	1,200	2,100	3,500	6,000	8,000	13	50	130	200	500	870	1,300	2,000						
Graduation	Cubic Meter (m ³)																						Gallon				
	1	1	2	5	10	10	10	20	50	100	100	100	100	100	1000	2,500	5,000	10,000	20,000	25,000	25,000	25,000					
3"; DN80	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
4"; DN100	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
6"; DN150	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
8"; DN200	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					

Technical Data

Patterns and Sizes:

Globe & Angle 90°:
3 - 10"R; DN80 - 250R

End Connections:

Flanged: 3 - 10"R; DN80 - 250R

Measurement Precision

(ISO 4064-1, Class A):

±2% Q2 (Qt) - Qmax (Q4)

Pressure Ratings: 16 bar; 225 psi

Minimum Operating Pressure:

0.7 bar; 10 psi

Materials:

Body and Cover: Polyester F.B.

Coated, Cast or Ductile Iron

Metal Internals: Stainless Steel 303

Spring: Stainless Steel

Plastic Internals:

Glass Fiber Reinforced Nylon

Impeller: Polypropylene

Elastomers: Reinforced NR Diaphragm

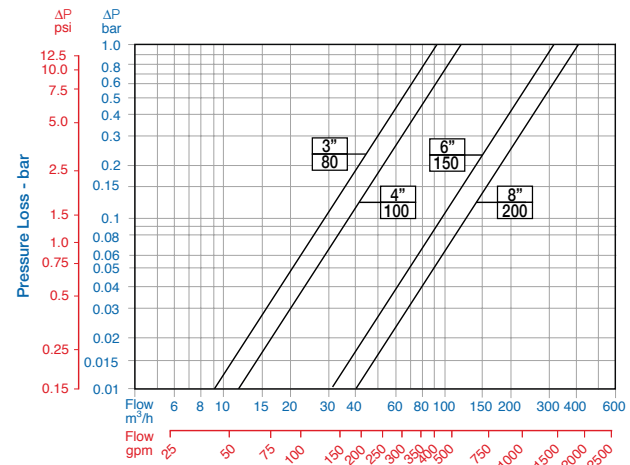
& NBR (Buna-N) Seals

Pivots and Bearings: Tungsten Carbide

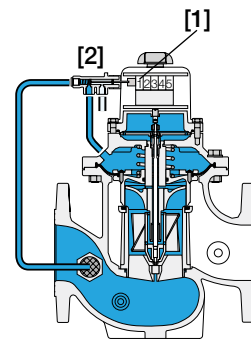
Control Head:

Plastic, Brass, Stainless Steel

Flow Chart



Operation



Upon delivering the preset water quantity, the AMV manually preset control head mechanism [1] mechanically shifts the shut-off pilot [2], which diverts line pressure into the AMV control chamber thereby shutting off the AMV, and stopping the flow of water.

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	4"	900	D2	00	G	I	16	PG	-	PB	800	NPS	-
Globe	Angle	120 (4"; DN100 only)	G A H	Plastic Tubing & Brass Fittings Copper Tubing & Brass Fittings	PB CB	40 m ³ 80 m ³ 120 m ³ 150 m ³ 200 m ³ 350 m ³ 600 m ³ 800 m ³ 1,200 m ³ 2,100 m ³ 3,500 m ³	040 080 120 150 200 350 600 800 1K0 2K0 3K0	6,000 m ³ 8,000 m ³ 13,000 Gal. 50,000 Gal. 130,000 Gal. 200,000 Gal. 510,000 Gal. 875,000 Gal. 1,300,000 Gal. 2,100,000 Gal.	6K0 8K0 1G0 5G0 1KG 2KG 5KG 8KG 1MG 2MG	Homologation Approved Other attributes available on request	L		
ISO-16	ISO-10	ISO-14 (ISO-10/4 Holes)	ANSI-125	JIS-10	BST-D	16 10 14 A1 J1 BD							



info@bermad.com • www.bermad.com

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