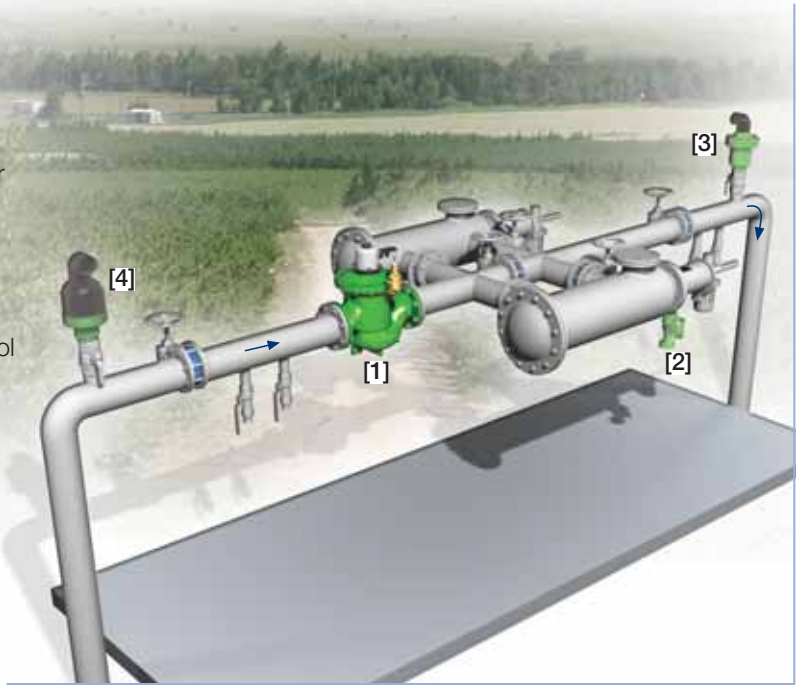
Pressure Sustaining Automatic Metering Valve (AMV)

IR-930-D2-R

The BERMAD Model IR-930-D2-R integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. Equipped with a Mechanical Shut-Off Pilot and a Pressure Sustaining Pilot, the BERMAD AMV sustains minimum preset upstream (back) 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
  - Sustains upstream line pressure
  - Controls system fill-up
  - Non-computerized quantity follow-up and control
- Internal Inlet & Outlet Flow Straighteners
  - Saves on straightening distances
  - Maintains accuracy
- Integrated Flow Metering Calibration Device
- User-Friendly Design
  - Easy pressure setting
  - Simple in-line inspection and service

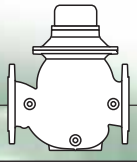


Typical Applications

- Semi-Automatic Irrigation
- Manual Irrigation intended for computerization
- Pressure Zone Prioritizing
- Line Fill-Up Control
- Line Emptying Prevention
- Volumetric Irrigation Systems
- Distribution Centers

[1] BERMAD Model IR-930-D2-R sustains filters back flush pressure and delivers precise water quantity.
[2] BERMAD Filter Flush Valve Model IR-405
[3] BERMAD Air Valve Model ARC-A-I-I
[4] BERMAD Air Valve Model ARC-A-P-I

BERMAD Irrigation



IR-930-D2-R

900 Series

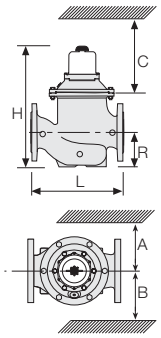
Pressure Sustaining

For full technical details, refer to Engineering Section.

Technical Specifications

Dimensions and Weights

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



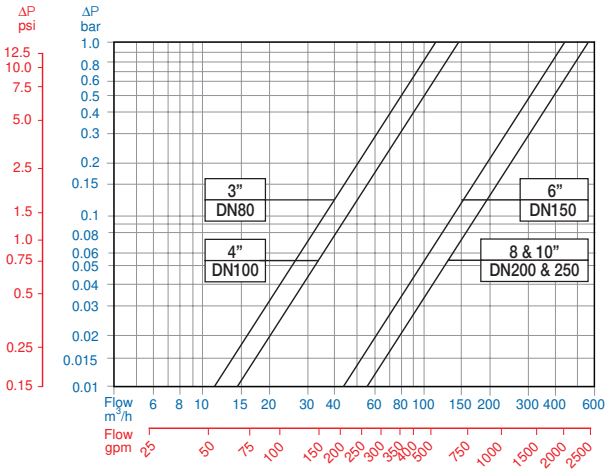
Accuracy & Flow Data (ISO 4064-I, Class A)

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

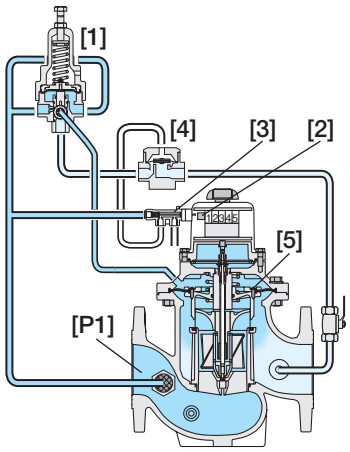
Dial Options

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	2	5	10	10	10	20	50	100	100	100	100	1000	2,500	5,000	10,000	20,000	25,000	25,000
3"	■	■	■	■	■	■	■	■	■					■	■	■	■	■			
4"		■	■	■	■	■	■	■	■	■					■	■	■	■			
6"							■	■	■	■	■	■					■	■	■	■	
8" & 10"								■	■	■	■	■	■					■	■	■	■

Flow Chart



Operation



The Pressure Sustaining pilot **[1]** commands the AMV to throttle closed should Upstream Pressure **[P1]** drop below pilot setting, and to modulate open when it rises above pilot setting. Upon delivering the preset quantity of water, the AMV manually preset Control Head Mechanism **[2]** shifts the Shut-Off Pilot **[3]**, which closes the Hydraulic Relay Valve **[4]**. This pressurizes the Control Chamber **[5]**, causing the AMV to shut.

Technical Data

Patterns and Sizes:
Globe: 3-10"; DN80-250
Angle 90º: 3-8"; DN80-200
Angle 120º: 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: 1-16 bar; 15-232 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

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	Additonal Attributes
IR	3-10"	930	D2	00	G	I	16	PG	-	PB	800	NPS	R

Other sizes available on request.

Globe	G
Angle	A
120º (4"; DN100 only)	H

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

ISO-16	16
ISO-10	10
ISO-14 (ISO-10/4 Holes)	14
ANSI-125	A1
JIS-10	J1
BST-D	BD

40 m^3	040	6,000 m^3	6K0
80 m^3	080	8,000 m^3	8K0
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		

Metal Control Accessories	R
Homologation Approved	L

Other attributes available on request

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