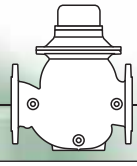


900 Series

On/Off Control

Hydrometer

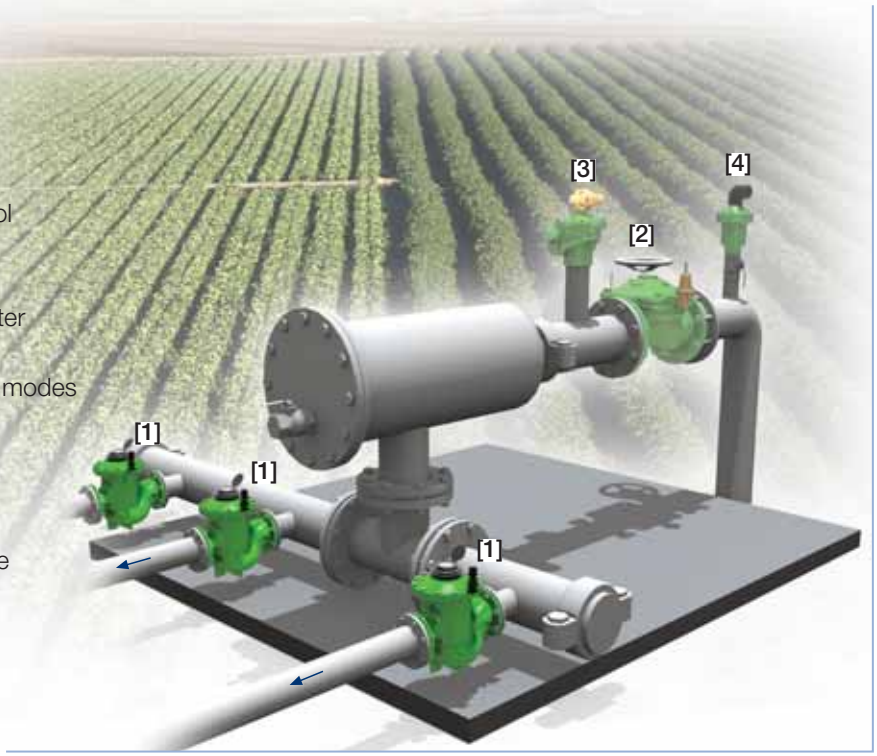
Magnetic Drive
with Solenoid Control

IR-910-M0-RX

The BERMAD Hydrometer with Solenoid Controll integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. The impeller drive is magnetically coupled to a vacuum-sealed meter register in the control head. As the system's Flow Meter and Main Valve, it controls system irrigation together with the irrigation controller. The BERMAD Model IR-910-M0-RX opens and shuts in response to an electric signal.

Features and Benefits

- Integrated "All-in-One" Control Valve
  - Saves space, cost and maintenance
- Hydraulic Hydrometer with Solenoid Control
  - Line pressure driven
  - Electrically controlled On/Off
- Magnetic Drive with Vacuum-Sealed Register
  - Water-free gear train mechanism
  - Reed-switch and Opto pulse-generating modes
  - Varios pulse combinations
- Internal Inlet & Outlet Flow Straighteners
  - Saves on straightening distances
  - Maintains accuracy
- Integrated Flow Metering Calibration Device
  - Precise measurement
- User-Friendly Design
  - Simple in-line inspection and service

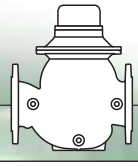


Typical Applications

- Computerized Irrigation Systems
- Distribution Centers
- Remote and/or Elevated Systems
- Remote Flow Fata Read-Out
- Flow Monitoring & Leakage Control
- Water Treatment Systems
- Irrigation Machines

[1] BERMAD Model IR-910-M0-RX opens in response to an electric signal, measuring the flow.
[2] BERMAD Pressure Reducing Valve Model IR-420
[3] BERMAD Relief Valve Model IR-43Q
[4] BERMAD Air Valve Model ARC-A-I-I

BERMAD Irrigation



IR-910-MO-RX

900 Series

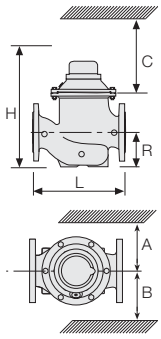
On/Off Control

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	382	447	602	617	617
	inch	15	17.6	23.7	24.3	24.3
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 B)

Size	Accuracy	DN inch	80 3	100 4	150 6	200 & 250 8 & 10
Q min (Minimum flow)	5%	m^3	1.2	1.8	4	6.3
		gpm	5.3	7.9	17.6	27.7
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

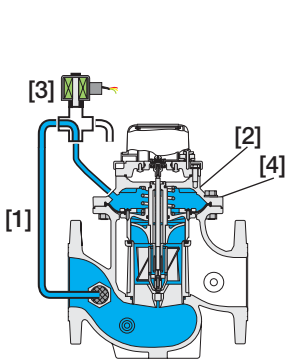
Pulse Option

Size \ One pulse per	Liter ; Gallon			m^3 ; Gallon	
	1; 0.1	10; 1	100; 10	1; 100	10; 1000
3-4"; DN80-100	■ ■		▲ ▲	▲ ▲	
6-10"; DN150-250		■ ■		▲ ▲	▲

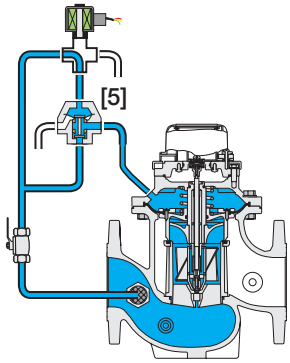
▲ R.S. = Reed-Switch ■ O.E. = Opto-Electric

Two parllel pulses are transmitted. other pulse rates are avaiable on request.

Operation



Size Range 3 - 4"



Size Range 6 - 10"

Line Pressure **[1]** is applied to the Control Chamber **[2]** through the opened 3-Way Solenoid **[3]**. This creates superior closing force that moves the Diaphragm Assembly **[4]** toward a closed position. Closing the quickens solenoid causes it to discharge pressure from the Hydrometer control chamber opening it.

For Hydrometers of 6-10"; DN150-250 diameter, a 3-Way Hydraulic Relay Valve (3W-HRV) **[5]** accelerates Hydrometer response.

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 Rating: 16 bar; 232 psi
Minimum Operating Pressure: 0.5 bar; 7 psi
For lower pressure requirements, consult factory

Materials:
Body and Cover:
Polyester Coated Cast or Ductile Iron
Internals:
Stainless Steel & 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
Control Accessories: Brass
Tubing and Fittings: Reinforced Plastic and Brass

Solenoid Voltage Range:
S-390 & S-400: 24 VAC, 24 VDC
S-392 & S-402: 9-20 VDC, Latch
S-982 & S-985: 12-50 VDC, Latch
Other Voltages available. For full electrical data, refer to Accessories Section.

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"	910	M0	00	G	I	16	PG	4AC	PB	WAT	R23	RX

Other sizes available on request.

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

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

9VDC –	Latch	9DS
12VDC –	Latch	1DS
24VDC –	N.C.	4DC
24VDC –	N.O.	4DC
24VAC –	N.C.	4AC
24VAC –	N.O.	4AO
24VAC, Lightning Proof –	N.C.	4RC
24VAC, Lightning Proof –	N.O.	4RO

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

R.S.	100 Lit	R02	R.S.	10 Gal	RG4
R.S.	1 m^3	R03	R.S.	100 Gal	RG5
R.S.	10 m^3	R04	R.S.	1000 Gal	RG6
R.S.	100 Lit +1 m^3	R23	R.S.	10+100 Gal	G45
R.S.	1 m3+10 m^3	R34	R.S.	100+1000 Gal	G56
O.E.	1 Lit	P01	O.E.	0.1 Gal	PG2
O.E.	10 Lit	P10	O.E .	1 Gal	PG3
O.E.+R.S.	1+100 Lit	PQ1	O.E.+R.S.	0.1+10 Gal	P4G
O.E.+R.S.	10 Lit+1 m^3	P13	O.E.+R.S.	1+100 Gal	P5G
R.S.	No Pulse	RNP	R.S.	No Pulse Gal	RNG

R.S. = Reed-Switch O.E. = Opto-Electric

Metal Control Accessories	R
3-Way Control	X
Homologation Approved	L

Other attributes available on request

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