

Pressure Reducing Hydrometer

Magnetic Drive

IR-920-M0-R

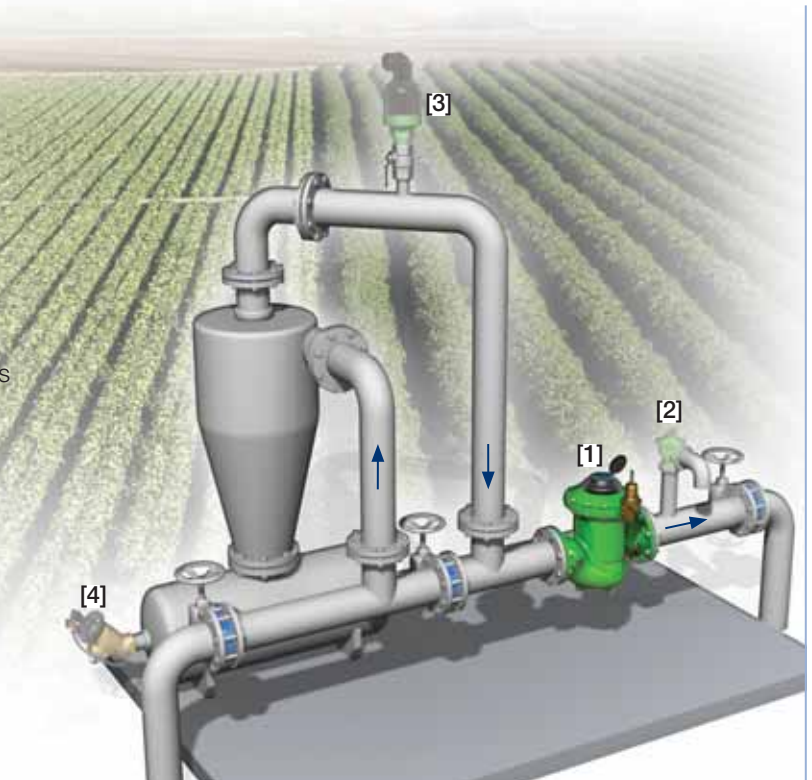
The BERMAD Pressure Reducing Hydrometer integrates a vertical turbine Woltman-type water meter, with a diaphragm actuated hydraulic control valve.

The BERMAD IR-920-M0-R reduces higher upstream pressure to lower constant downstream pressure.



Features and Benefits

- Integrated "All-in-One" Control Valve
 - Saves space, cost and maintenance
- Hydraulic Pressure Control
 - Line pressure driven
 - Protects downstream
- 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
 - Easy pressure setting
 - Simple in-line inspection and service
 - Easy addition of control features



Typical Applications

- Computerized Irrigation Systems
- Pressure Reducing Systems
- Remote Flow Data Read-Out
- Flow Monitoring & Leakage Control
- Volumetric Irrigation Systems

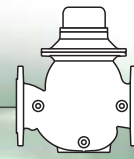
[1] BERMAD Model IR-920-M0-R protects the system measures the flow.

[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-MO-R

For full technical details, refer to Engineering Section.

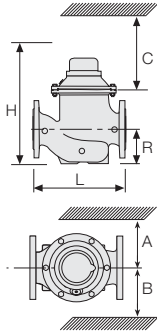
900 Series

Pressure Reducing

Technical Specifications

Dimensions and Weights

Size	DN	80	100	150	200	250
	Inch	3	4	6	8	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



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

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

Size	Accuracy	DN	80	100	150	200 & 250
		inch	3	4	6	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 parallel pulses are transmitted. other pulse rates are available on request.

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

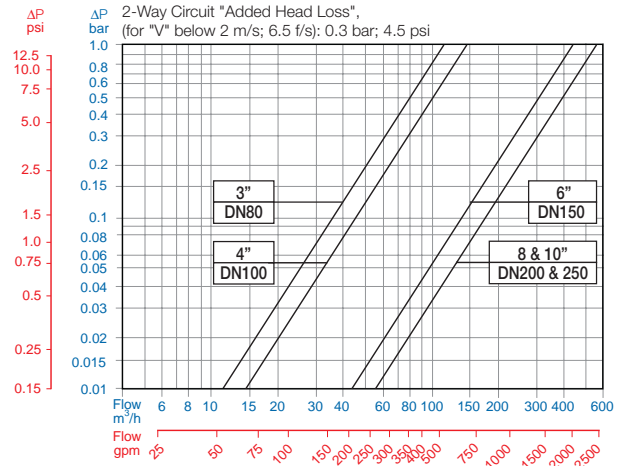
Setting Rang:

1-10 bar; 15-145 psi
Setting ranges vary according to specific pilot spring. Please consult factory.

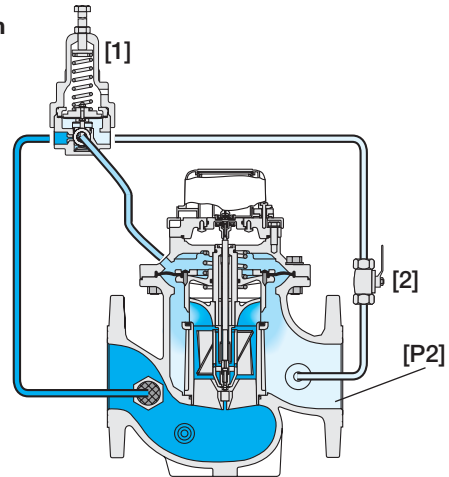
Materials:

Body and Cover: Polyester Coated Cast or Ductile Iron
Internals: St. St. & Glass Fiber Reinforced Nylon
Impeller: Polypropylene
Elastomers: Reinforced NR Diaphragm & NBR (Buna-N) Seals
Pivots and Bearings: Tungsten Carbide
Control Accessories: Brass
Tubing and Fittings: Reinforced Plastic and Brass

Flow Chart



Operation



The Hydrometer continuously transmits flow data to the irrigation controller. The Pressure Reducing Pilot [1] commands the Hydrometer to throttle closed when Downstream Pressure [P2] rises above pilot setting, and to modulate open when it drops below pilot setting. The downstream Cock Valve [2] enables manual closing.

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	MO	00	G	I	16	PG	-	PB	WAT	R23	R
Other sizes available on request.													
Globe	G												
Angle	A												
120 (4"; DN100 only)	H												
Plastic Tubing & Brass Fittings													
Copper Tubing & Brass Fittings													
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 m ³ +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								
Metal Control Accessories R Homologation Approved L Other attributes available on request													

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



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