

BERMAD ELECTRONIC AUTO METERING VALVE

Model IR-910-ME-KX

BERMAD's digital metering hydrometer, model IR-910-MC-KX, is a revolutionary upgrade to the old mechanical AMV.

Featuring highly accurate built-in magnetic drive Woltman water meter and controlled by BERMAD's Omega IoT controller, the IR-910-MC-KX brings the all-in-one concept to the top of technology.

The IR-910-MC-KX will regulate your irrigation system in the most accurate way. Both the valve and the water meter can be setup to any automatic irrigation scheduling and can be accessed locally and remotely for manual operation, with real time alerts, status and operation tracing reports.



[1] BERMAD IR-900-MC-Digital Auto Metering Valve
[2] BERMAD Combination Air Valve Model C10
[3] BERMAD Kinetic Air Valve Model K10

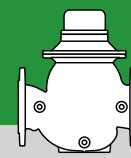
Features and Benefits

- Irrigation control options
 - Integrated valve, controller and water meter in one device
 - Integrated intelligence remote cellular communication
 - Plug & play installation
 - Preset volume or time
 - Weekly and cyclic irrigation programs
 - Control up to 4 hydrometers by one controller
 - Long lasting battery safe operation
- Ease of operation
 - Programming and Operating by BERMAD Cloud friendly Web-Access & Smartphone application

Typical Applications

- Pulses or time Count Down Irrigation - Electronic Automatic Metering Valve (AMV)
- Time or Volume irrigation control
- Tank volumetric fill-up control
- Volume or time based end of pipe flush control

* 900 Series Hydrometer integrates a vertical turbine Woltman-type water meter with a diaphragm actuated hydraulic control valve. As the system's Flow Meter and Main Valve, it controls system irrigation independently or together with the irrigation controller.



BERMAD Cloud

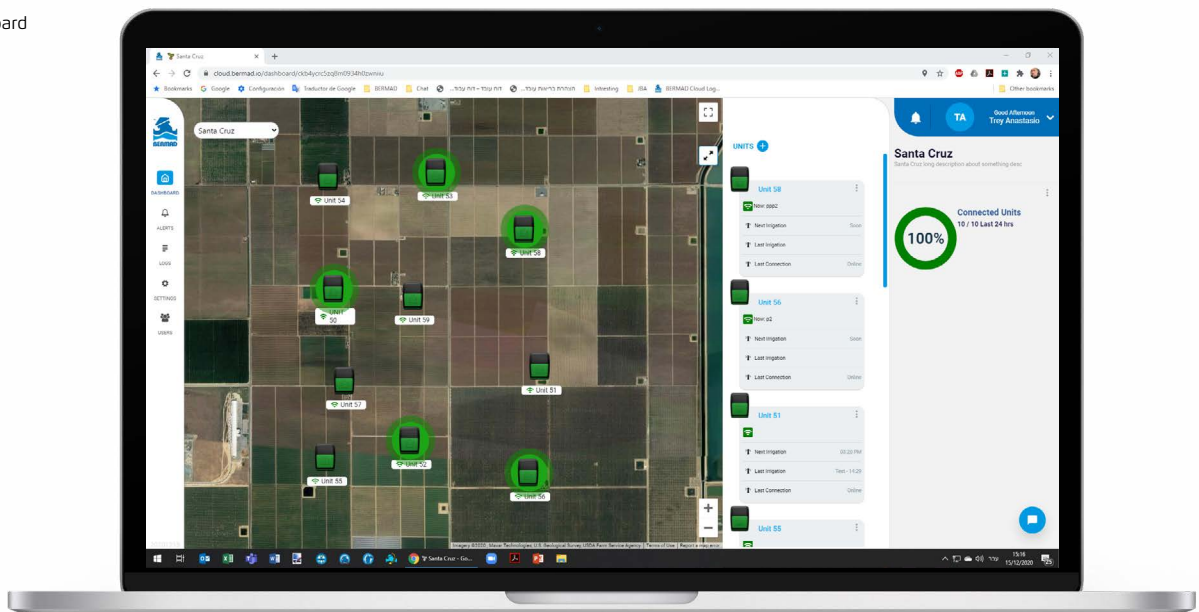
BERMAD Cloud offers web-based internet access to your irrigation system:

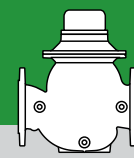
- User friendly and intuitive control features
- Global management of all your Omega controllers
- Real time status visual monitoring of your irrigation system
- Cloud level integration of third-party solutions

BERMAD Cloud Features:

- **Password protected login:**
 - Multi-user connectivity for enhanced management and technical support
 - Individual access level authorization
- **Global Account management:**
 - Language and time zone selection
 - User privileges
 - Unit support (Metric, Imperial)
- **Dynamic dashboard:**
 - Geo-referenced map with global view of your irrigation project
 - Current status of Omega controllers
 - Up-to-date water budget usage
 - Quick access to unit management tools
 - Unit Setup, programming and manual operation
 - Wizard for guided unit config & I/O definition
- **Alert control:**
 - Alert status log and email notification
 - Alert management tools:
 - Controller reaction to each type of alert
 - Alert notification settings per user
- **Log information:**
 - System state, operation events & alerts
 - Periodic sensor data acquisition
 - Watermeter accumulations
 - Analogue sensor data
 - Battery charge
- **Report generator:**
 - Personalized reports for operation and traceability
 - Export to Excel and PDF
- **Smartphone App:**
 - Unit setup and configuration
 - Irrigation programming and manual operation

Dynamic dashboard



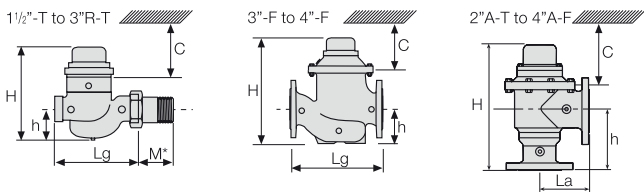


For full technical details, refer to Engineering Section.

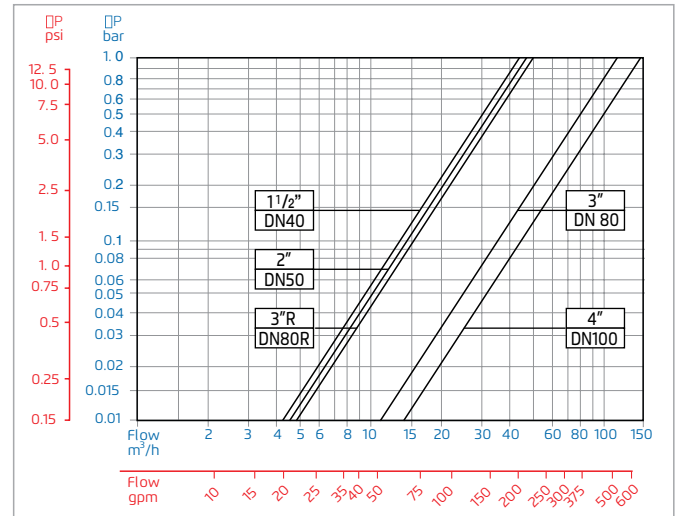
Technical Specifications

Dimensions and Weights

Size	DN Inch	40-T 1½-T	50-T 2-T	50A-T 2A-T	80R-T 3R-T	80R-F 4R-F	80-F 3-F	80A-F 3A-F	100-F 4-F	100A-F 4A-F
Lg	mm	250	250	N.A.	250	310	300	N.A.	350	N.A.
	inch	9.8	9.8	N.A.	9.8	12.2	11.8	N.A.	13.8	N.A.
La	mm	N.A.	N.A.	120	N.A.	N.A.	N.A.	150	N.A.	180
	inch	N.A.	N.A.	4.7	N.A.	N.A.	N.A.	5.9	N.A.	7.1
H	mm	270	277	300	277	298	382	402	447	481
	inch	10.6	10.9	11.8	10.9	11.7	15.0	15.8	17.6	18.9
C	mm	210	210	210	210	225	285	285	365	365
	inch	9	9	9	9	9	11	11	15	15
h	mm	95	95	125	79	100	123	196	137	225
	inch	3.7	3.7	4.9	3.1	3.9	4.8	7.7	5.4	8.9
M*	mm	67	77	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	inch	2.6	3.0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Weight	Kg	6.8	8.8	8.1	7.3	16	26.0	25.8	37.0	36.1
	lb.	15	19.4	17.4	16.1	35.3	57.3	56.2	81.6	78.9



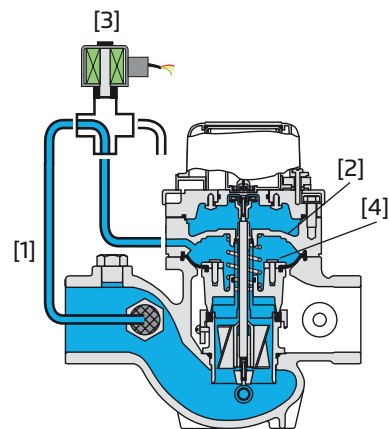
Flow Chart



Accuracy & Flow Data

Size	Accuracy	DN inch	40 1½	50 2	80R 3R	80 3	100 4
ISO 4064-1 Class			A	A	B	B	B
Q min (Minimum flow)	5%	m³	0.8	0.8	1.2	1.2	1.8
		gpm	3.5	3.5	5.3	5.3	7.9
Qn, ISO 4064-1 (Nominal flow)	2%	m³	15	15	17	40	60
		gpm	66	66	75	176	264
Qper=Q3 (Permanent flow)	2%	m³	25	40	40	100	160
		gpm	110	176	176	440	704

Operation



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] to a closed position. Closing the Solenoid causes it to switch, discharging pressure from the control chamber. The Hydrometer then opens, measuring the flow. The solenoid also features local manual opening & closing.

Technical Data

End Connections:

Threaded: 1½, 2; DN40, DN50
Flanged: 3 & 4"; DN80, DN100
Pressure Rating: 10 bar; 145 psi

Minimum Operating Pressure:

0.5 bar; 7 psi
For lower pressure requirements, consult factory

Solenoid Voltage Range:

S-392: 9-20 VDC, Latch
S-982: 12-50 VDC, Latch
For full electric 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	Additional Attributes
IR	1½-4" <small>Other sizes available on request.</small>	910	M0	00	G	I	BP	PG	4AC	PP	WAT	R12	KX
Globe Angle 90°	G A	BSP (1½, 2 & 3"R only) NPT (1½, 2 & 3"R only) ISO-16 ISO-10 ISO-14 (ISO-10/4 Holes) ANSI-150 JIS-10 BST-D Flange (JIS-10) inlet X BSP outlet (2" Angle only)	BP NP 16 10 14 A5 J1 BD JB	9VDC – Latch 9DS 12VDC – Latch 1DS Plastic Tubing & Fittings PP Plastic Tubing & Brass Fittings PB	R.S. = Reed-Switch O.E. = Opto-Electric	R.S. 10 Lit R01 R.S. 100 Lit R02 R.S. 1 m³ R03 R.S. No Pulse RNP	Plastic Control Accessories K 3-Way Control X omologation Approved L Manual Selector Z <small>Other attributes available on request</small>						

