



MWM-500

Electromagnetic Smart Water Meter for Agricultural Wells

Overview

The MWM-500 smart meter uses the electromagnetic metering Sensor and is designed to monitor the usage of water resources according to the environmental conditions. In addition to precisely measuring the water usage, it is able to record and save all the events and information on water usage from the well. This meter is able to send its data to the metering software by connecting to the smart electricity meter and cellular networks, and receive necessary data from the metering software.

Benefits

- ▶ Complete water consumption management
- ▶ Remote meter reading via smart electricity meter

Features

- ▶ Internal power supply with long durability
- ▶ Resistant against climate change
- ▶ Precise and correct performance at any climate situation
- ▶ Possible electrical valve addition
- ▶ With optical probe for local settings application and data extraction
- ▶ Remote metering software bundle
- ▶ Meter configuration software bundle for applying settings to the meter locally
- ▶ Without any mechanical moving parts
- ▶ Water flow direction measurement and empty pipe detection
- ▶ Mifare card reader system, with possibility to transfer data to the card
- ▶ Water usage amount charge ability by user via mifare card



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SAA-EN-0790-9712-PB-01

ELECTRONIC MECHANICAL



General Specifications

▶ Power Supply	Diesel and Electrical
	Battery life calculation algorithm according to the consumption flow and empty battery alarm
▶ Ports	Consumption output pulse
	Optical port for data transmission compliant with IEC 62056-21 M-BUS
▶ Measuring Accuracy	2 percent
▶ Protection Degree	IP67 Sensor, IP54 Electrical
▶ Connection Type	Flange
▶ Material	Body : Carbon Steel with Painting Coating
	Electrodes : AISI 316L
	Lining : EPDM, Hard Rubber, PTFE
	Flange : Carbon Steel/DIN2576,DIN2577,DIN2578,ANSI
▶ Size	1 - 56 inches

Functions

▶ Passing Flow Volume	Volume	m ³ , L
▶ Reverse Flow Volume	Volume	m ³ , L
▶ Adjustable Pulse Ratio	1, 10, 100, 1000	L/Pulse
▶ Maximum Readable Number	8 numerical and 2 decimal characters	min

Features

▶ Events Record	recording and sending of a variety of events, alarms and tamperings
▶ Consumption Profile	Consumption profile recording (volume & flow) with time intervals from 30, 60, 90 and 120 minutes
▶ Recordable and Measureable Parameters in the System	Momentary flow (L/s)
	Maximum flow (L/s)
	Authorized volume of consumption (m ³ , 0.00)
	Total volume consumed (m ³ , 0.00)



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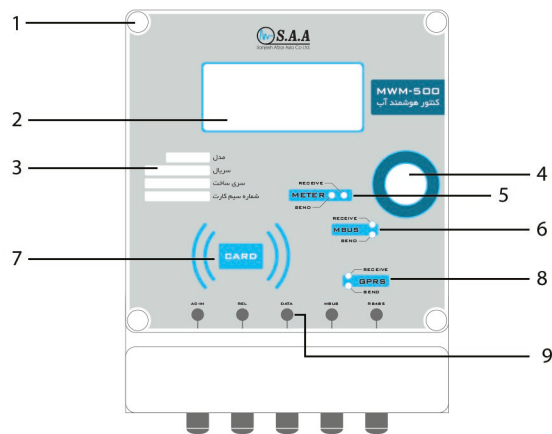
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Panel



- | | | | |
|---|----------------------------|---|----------------------|
| 1 | Screw Cap | 6 | LEDs of MBUS |
| 2 | LCD | 7 | Mifare Card Location |
| 3 | Data logger specifications | 8 | LEDs of GPRS |
| 4 | Optical probe location | 9 | Gland Markers |
| 5 | LEDs of Meter | | |

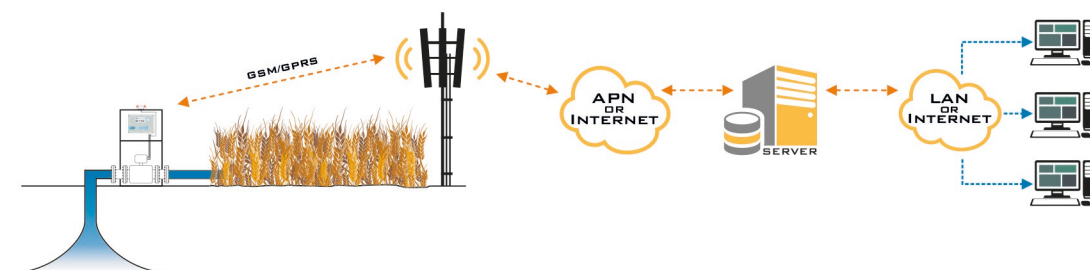
Features

- | | |
|--|---|
| ▶ Recordable and Measurable Parameters in the System | Total remaining volume (m ³) |
| | Pump usage time |
| | optical port status |
| | OBIS codes display possibility |
| | Power outage or connection status display |
| | Reverse flow display |
| | Battery status |
| | Water consumption limit indicator |
| | Tampering Indicator |

Meter Standards

- | | |
|------------------------------|----------------------|
| ▶ Water Meter Approvals | ISO 16399 / OIML R49 |
| ▶ Electromagnetic Capability | EN 61326-1 : 2006 |
| ▶ Low Voltage Directive | EN 61010 : 2001 |

System Architecture



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Ordering

MWM-500	Code	Description	MWM-500	Code	Description
Mounting Type	M1	Integrated mount	Liner Material	L1	EPDM
	M2	Remote mount		L2	Hard Rubber
Size	S1	1", DN25		L3	PTFE
	S1½	1½", DN40		L4	PFA
	S2	2", DN50		L5	Other Material*
	S3	3", DN80	Electrodes Material	E1	SS: 316L
	S4	4", DN100		E2	Alloy C
	S5	5", DN125		E3	Gold/Platinum
	S6	6", DN150		E4	Tantalum
	S8	8", DN200		E5	Platinum/Rhodium
	S10	10", DN250		E6	Other Material*
	S12	12", DN300	Number of Electrodes	N2	Two
	S14	14", DN350		N3	Three
	S16	16", DN400		N4	Four
	S18	18", DN450	End Flange	F1	DIN flange
	S20	20", DN500		F2	ASME flange
	S24	24", DN600	Voltage	VH	110/220V AC
	S40	40", DN1000		VL	24V DC
	S48	48", DN1200	Output; Input	IO1	4-20 mA
	S56	56", DN1400		IO2	Modbus RS485
	SN	Other Sizes*		IO3	Ethernet
Operation Pressure	PN10	Flange UNI2277, DIN2576		IO4	Pulse output
	PN16	Flange UNI2278, DIN2577		IO5	Relay
	PN25	Flange UNI6083, DIN2578			
	PNA	ANSI			
	PNO	Other Flange Type*			

*by customer order

Sample ordering code: MWM-500-M1-S3-PN16-L2-E1-N2-F1-VH-IO5



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