Iskrasonic®1000 – MWU5

Ultrasonic Smart Meter PLUS

The Iskrasonic® 1000 – MWU5 is a high-precision ultrasonic water meter engineered for advanced metering applications.

More than a standard smart meter, the Iskrasonic® 1000 is designed as a smart meter PLUS, thanks to its integrated temperature sensor, pressure sensor, GPS and integrated built-in Valve functionality.

Combining a robust ultrasonic base unit with configurable LPWAN bi-directional communication modules , the Iskrasonic® 1000 – MWU5 delivers proven reliability and mature performance in the field ensuring accurate measurement, enhanced system hydraulic insights, and long-term operational stability.

Measurement

- Forward volume, reverse volume.
- Flow rate.
- Water temperature.
- Ambient temperature.
- Pressure (optional).
- Battery Voltage.

Consistent Accuracy

Maintenance Free Operation

Energy-Efficient & Robust

Key Features

- DN15~DN50.
- Ultra Low start flow: 1L/h.
- Dynamic range: R250/R400.
- Eliminates measuring deviations caused by sand, suspended particles or air pockets
- Touch key, large size LCD and backlight.
- Ultra-low power design, battery separation for metering and communication.
- Installation in all orientations.
- IP68 protection, suitable for outdoor installation.
- Bi-directional LPWAN technology, NB-IoT with wM-Bus, LoRaWAN with wM-Bus for diverse applications
- Integrated valve for remote control or prepayment function

Events

- 3- Levels Battey *1
- Valve malfunction *1
- Low Credit *1
- Meter position displacement *1
- Brust *1
- Temperature sensor failure *1
- Pressure Sensor failure *1
- Meter cover remove *1
- Open module cover *1
- Battery remove *1
- Magnetic Effect *1
- Battery cover remove *1
- Low/High pressure
- Communication module mismatch
- Low/High Temperature
- Dry pipe
- Many days without Consumption
- Leakage
- Overload water flow
- reverse flow
- Valve leakage
- Exceed Daily Limit
- Exceeds monthly Limit

*1: Instant alarm by default

Data Logger

- last 120 months monthly consumption data
- last 90 days daily consumption data
- last 30 days hourly consumption data
- All Meter Events

Advanced Features

- Remote Valve Control OTA , for open , close and configurable valve status
- Prepayment Function based on Volume or credit
- Money Deduction Based on Step tariff and fees
- Friendly time and Holidays
- Overdraft Feature
- Defining valve closing conditions
- Automatic Valve maintenance

Technical characteristics

Items	Parameters					
Meter Type	Iskrasonic® 1000-MWU5					
Nominal diameter (mm)	15	20	25	32	40	50
Nominal diameter (inch)	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Q3 (m³/h)	2.5	4.0	6.3	10	16	25
Q1 (L/h), R400	6.25	10	16	25	40	62.5
Q_3/Q_1	R250/R400					
Accuracy class	Class 2					
Types of Indicating device	LCD: 0~ 999999.99995m³					
Temperature class	T50					
Water pressure class	MAP 16 (16 bar)					
Pressure-loss class	△p63 (0.63 bar)					
Installation orientation	All orientation					
The installation sensitivity class	U0/D0					
Material	No less than 57% brass or Customized					
Electromagnetic and Environmental class	O, E2					
Work Environment	-25~70°C ≤ 100%RH					
IP code	IP68					
Valve lifetime	≥10000 times(typical)					

Electronic characteristics

Items	Parameters
Power Source	Lithium battery (3.6 V)
Battery Lifetime	10 years@0~35°C*
Communication Options	1- Local Communication Interfaces : • Optical • Pulse • NFC Card 2- Remote Communication Interfaces : • Wired M-Bus • RS485 • Wireless M-Bus • LoRaWAN with optional wM-Bus fallback • Sigfox • NB-IoT with optional wM-Bus fallback

* influenced by communication options and signal strength etc.

Display characteristics

Symbol	Description
↑	Forward Direction
↓	Reverse direction
888	Display code
↻	Reverse flow alarm
!	Function alarm
⚠	Fault sign
🚰	Leakage sign
®	Recharge Reminder
🔒	E-sim Sign *1
Open	Valve Opened
Close	Valve Closed
⚠	Valve Failure
⚶	Test Mode activated
⚙	User Mode Sign *2
🔧	Communication disabled
🔋	Main Battery Sign
🔋	Measurement Battery Sign
((ɤ))	Meter receiving data
Y	Meter connected to network *3
Total	Total consumption
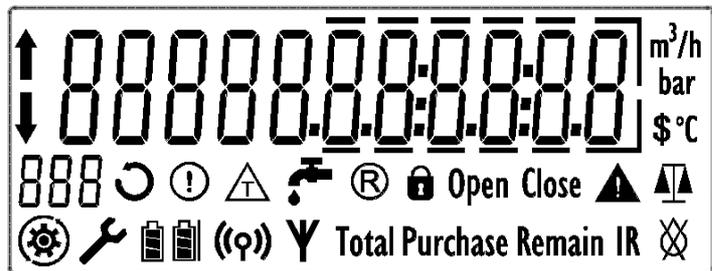
Symbol	Description
Purchase	Water purchase
Remain	Remaining quota or credit
IR	Optical interface
$	Credit sign
°C	Temperature degree
bar	Pressure unit
m³/h	Unit of volume or flow rate
⊗	Empty pipe

*1 : Sim Card Error when the sign is Blinking
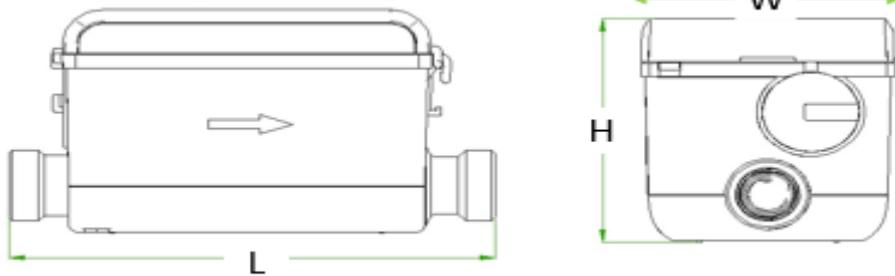*2 : Meter detect the flow and enter the user mode
*3 : the meter is Pushing Data when the sign is Blinking

Dimensions

Size	L (m)	W (m)	H (m)	Thread
DN15	165	99	106	G3/4"
DN20	190	99	106	G1"
DN25	260	105	123	G1-1/4"
DN32	260	105	123	G1 ½'
DN40	300	105	123	G2
DN50	300	165	193	Flange PN16

DN15-DN20

DN25-DN50