

Product data sheet

# Iskrasonic®1000 – IWU100

## Ultrasonic Smart Meter PLUS



The Iskrasonic® 1000 - IWU100 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, and GPS functionality.

Combining a robust ultrasonic base unit with configurable LPWAN bi-directional communication modules, the Iskrasonic® 1000 - IWU100 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/R500.
- Eliminates measuring deviations caused by sand, suspended particles or air pockets
- Touch key, large size LCD and backlight.
- Ultra-low power design.
- 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

### Events

- 3-level battery \*1.
- Flow overload alarm \*1.
- Burst Alarm \*1.
- Tamper \*1.
- magnetic Field detection \*1.
- High/low ambient temperature .
- Low/high pressure (optional).
- Low/high temperature.
- Empty pipe.
- No consumption.
- Consumption Limit.
- Reverse Flow .

\*1: Instant alarm by default

### Data Logger

- hourly data, daily data, monthly data for :
  - Water Consumption
  - Water Temperature
  - Water Pressure
- All the alarms and Tamper Events

### Technical characteristics

Items	Parameters						
<b>Meter Type</b>	Iskrasonic® 1000-IWU100						
<b>Nominal diameter (mm)</b>	15	20	25	32	40	50	
<b>Nominal diameter (inch)</b>	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	
<b>Q3 (m³/h)</b>	2.5	4.0	6.3	10	16	25	
<b>Q1 (L/h), R500</b>	5	8	12.6	20	32	50	
<b>Q<sub>3</sub>/Q<sub>1</sub></b>	R250/R400/R500						
<b>Accuracy class</b>	Class 2						
<b>Types of Indicating device</b>	LCD: 0- 999999.99995m³						
<b>Temperature class</b>	T50						
<b>Water pressure class</b>	MAP 16 (16 bar)						
<b>Pressure-loss class</b>	Δp40 (0.4 bar)						
<b>Installation orientation</b>	All orientations						
<b>The installation sensitivity class</b>	U0/D0						
<b>Material</b>	No less than 57% brass or Customized						
<b>Electromagnetic and Environmental class</b>	O, E2						
<b>Work Environment</b>	-25-70 °C ≤ 100%RH						
<b>IP code</b>	IP68						

## Electronic characteristics

Items	Parameters
<b>Power Source</b>	Lithium battery (3.6 V)
<b>Battery Lifetime</b>	12 years@0-35°C*
<b>Communication Options</b>	1- Local Communication Interfaces : <ul style="list-style-type: none"> <li>• Optical</li> <li>• Pulse</li> </ul> 2- Remote Communication Interfaces : <ul style="list-style-type: none"> <li>• Wired M-Bus</li> <li>• RS485</li> <li>• Wireless M-Bus</li> <li>• LoRaWAN with optional wM-Bus fallback</li> <li>• Sigfox</li> <li>• NB-IoT with optional wM-Bus fallback</li> </ul>

\* influenced by communication options and signal strength etc.

## Display characteristics

1	Forward Direction
2	Minus
3	Reverse direction
4	Display code
5	Battery
6	Reverse flow alarm
7	Function alarm
8	Fault sign
9	Leakage sign
10	Empty pipe
11	Optical interface
12	Test Mode activated
13	Meter connected to network *1
14	Meter receiving data
15	Sim Card (E-sim or Physical) *2
16	Burst alarm
17	Out of factory Mode sign *3
18	Temperature degree
19	Pressure unit
20	Unit of volume or flow rate



\*1 : the meter is Pushing Data when the sign is Blinking

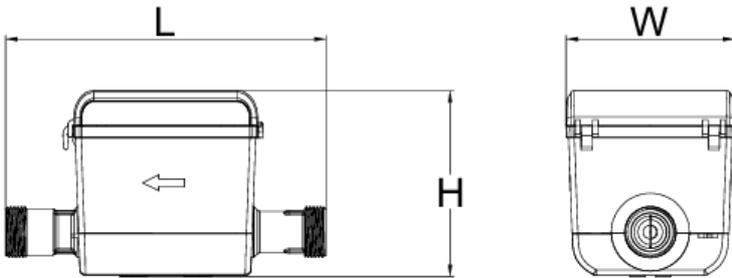
\*2 : Sim Card Error when the sign is Blinking

\*3 : Meter will be in user mode once detect the water flow

## Dimensions

Type	Dimensions (mm)			
	L	B	H	Thread
<b>DN15</b>	110/165	87	96	G3/4B
<b>DN20</b>	130/190	87	96	G1B
<b>DN25</b>	225/260	87	121	G1-1/4B
<b>DN32</b>	260	87	128	G-1/2B
<b>DN40</b>	300	87	136	G2B
<b>DN50</b>	300	87	146	G2-1/2B

### DN15-DN20



### DN25-DN50

