



CRL-H Residential Ultrasonic Heat Meter

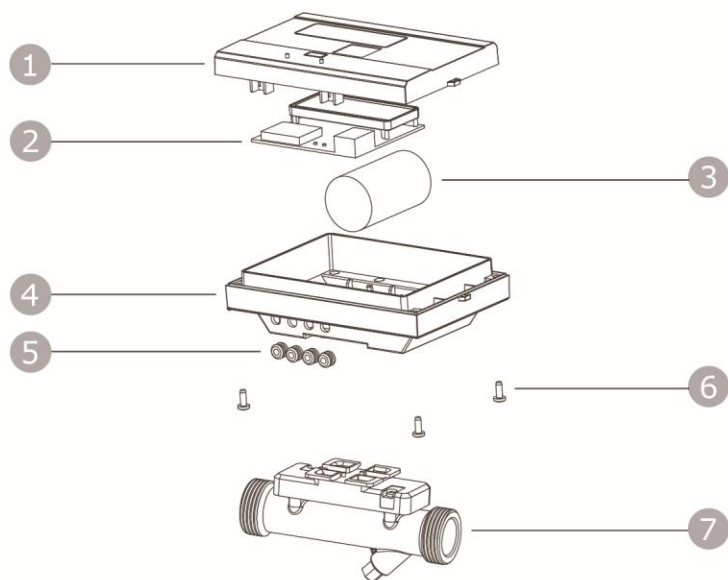
Scope of Application:

Suitable for measuring the energy consumption in heating/cooling application for billing purpose.

Features:

- Utilize quality transducer and advanced measuring technology, high measuring accuracy.
- No mechanical moving parts and pressure loss, long serving life.
- Not effect by poor water quality and low maintenance fee.
- Micro power consumption technology, one battery can work continuously over 10 years.
- Mounting in any installation position in difficult circumstances.
- Photoelectric interface, RS-485, M-Bus and NB-IoT interface to achieve remote meter reading for easier centralized management.
- Heating/cooling system.
- Rich daily historial data and log record.

No.	Name
1	Upper Case
2	PCB
3	Battery
4	Lower Case
5	Sealing Plug
6	Screw
7	Transducer

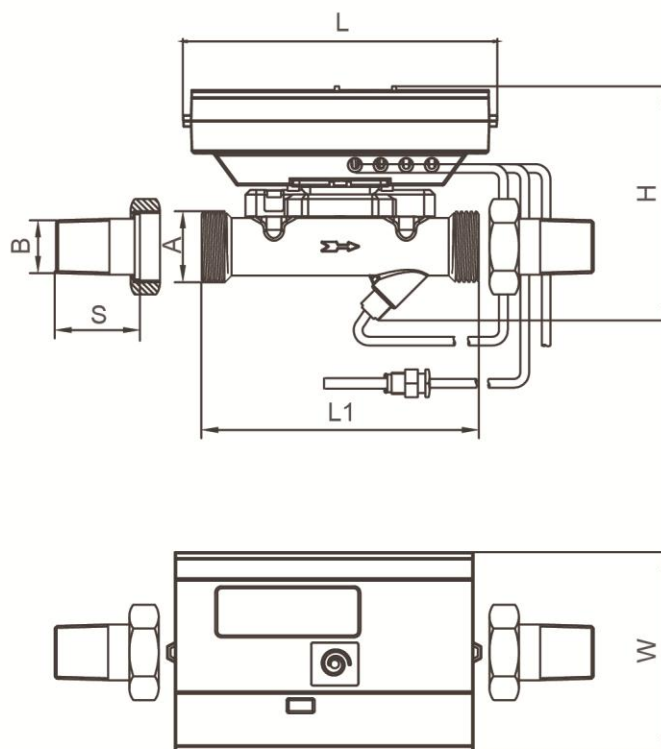




Technical Parameters:

Item		Parameter				
Nominal Diameter		DN15	DN20	DN25	DN32	DN40
Dynamic Range		100				
Permanent Flowrate (m ³ /h)		1.5	1.5	2.5	3.5	10
Minimum Flowrate (m ³ /h)		0.015	0.015	0.025	0.035	0.1
Overload Flowrate (m ³ /h)		3.0	3.0	5.0	7.0	20
Measuring Range	Temperature Range(°C)	4~95				
	Temperature Difference(K)	3~70 (Min.value of ex-factory is 0.2K)				
	Min.Temperature Pair Error(°C)	±0.1				
	Maximum Working Pressure(MPa)	1.6				
Accuracy		Class 2				
Type of Temperature Sensor		Pt1000 , DIN/IEC751B				
Protection Class		IP66/IP68(Standard is IP66)				
Power Supply		Battery DC3.6V (One battery can work continuously over 10 years)				
Working Environment		Class A/Class B				
Communication Methods		Photoelectric Interface, RS-485, M-Bus, NB-IoT				
Values Displayed		NB-IoT: LCD, 10-digital+prompting character RS-485/M-Bus: LCD, 8-digital+prompting character Heat quantity (kW·h or MJ) (NB-IoT: Range of display 0~999999999.9, RS-485/M-Bus: Range of display 0~9999999.9), Thermal power (kW)、 Instantaneous flowrate (m ³ /h)、 Cumulative flowrate (m ³)、 Supply water temperature (°C) Return water temperature (°C)、 Temperature difference (K)、 Accumulated effective running time (h)、 Date (Year/Month/Date)、 Time (Hour/Minute/Second)				
Display Resolution		Heat quantity: 0.1kW·h or 1MJ、 Cumulative flowrate 0.001m ³ ; Temperature: 0.01°C ; Temperature difference: 0.01K				
Data Communication	Photoelectric Interface	Baudrate: 2400bps, CJ-T188 protocol				
	M-Bus/RS-485	Baudrate: 2400bps、 4800bps、 9600bps selectable , default: 2400bps , Transmission distance ≤1200m Huizhong protocol, CJ-T188 protocol, Modbus protocol selectable , default: CJ-T188 protocol				
	Wireless Communication	Narrow Band Internet of Things (NB-IoT)				
Data storage(EEPROM)		Heat quantity, accumulative flowrate and corresponding time and the max. thermal power of the current month stored by month, latest 24 months' data can be stored				
Storage Temperature(°C)		-25~+55				
Pressure Loss at Permanent Flowrate(MPa)		≤0.025				
Cable Length of Temperature Sensor(m)		1.3 (The supply water temperature sensor shall be mounted on the flow transducer before delivery)				
Mounting position		On supply water pipe (For special requirement, please specify on ordering)				

Dimension (mm):



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Nominal Diameter(mm)	15	20	25	32	40
A without Connections	G $\frac{3}{4}$ B	G1B	G1 $\frac{1}{4}$ B	G1 $\frac{1}{2}$ B	G2B
B with Connections	R $\frac{1}{2}$ B	R $\frac{3}{4}$ B	R1B	R1 $\frac{1}{4}$ B	R1 $\frac{1}{2}$ B
L	147	147	147	147	147
L1	110	130	160	180	200
H	110	115	120	125	135
W	94	94	94	94	94
S Connection Length	45	51	59	60	62



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HUIZHONG INSTRUMENTATION CO., LTD.