

2-Wire RS485 Modbus ultrasonic calorimeter



The CRL-H calorimeters are water energy meters for measuring part-use (heating / cooling) in residential environments. The meter operates according to ultrasonic volume measurement principle, which allows the meter to be mounted in different angles without affecting the measurement. At the same time, pressure loss is also limited to a minimum.

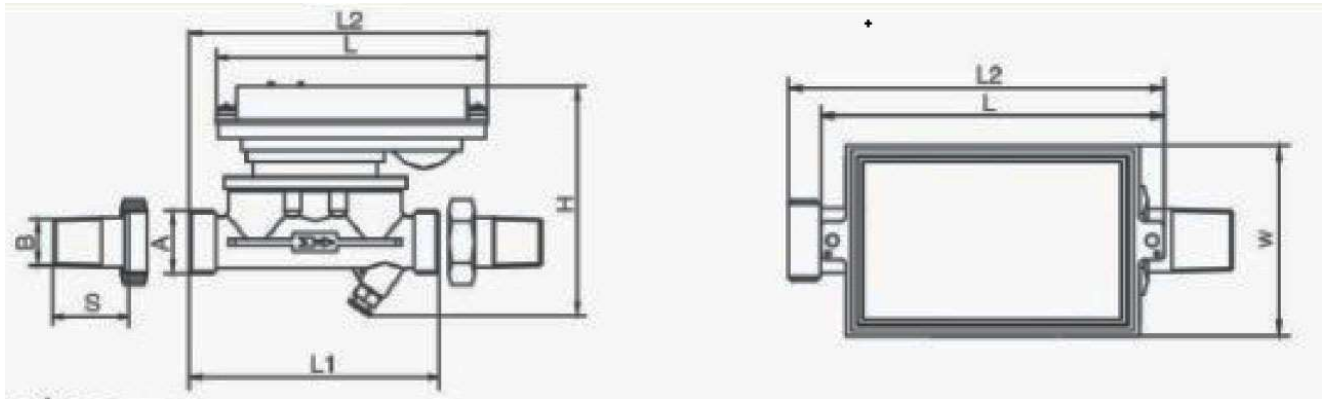
Features:

- Available in different sizes: DN 15, DN20, DN25, DN32 and DN40
- Water temperature: + 4 ° C. + 95 ° C
- High accuracy $\pm 2\%$ and high reliability thanks to its sophisticated metering technology.
- Integrated mechanical design with protection class IP68
- No moving parts to avoid mechanical wear and pressure loss
- Both horizontal and vertical mounting (on departure pipeline) is possible
- Replaceable lithium battery with extra long life of more than 10 years
- Communication interface: Optical and via RS485 Modbus
- Suitable for both heating and cooling applications

Technical features:

Pipe Size		DN15		DN20			DN25		DN32	DN40
Dynamic Range Q3/Q1		50	100	50	100	100	50	100	50	50
Normal Flowrate(m ³ /h)		1.0	1.5	1.5	1.5	2.5	3.5	3.5	6	10
Min. Flowrate(m ³ /h)		0.02	0.015	0.03	0.015	0.025	0.07	0.035	0.12	0.2
Max. Flowrate(m ³ /h)		2.0	3.0	3.0	3.0	5.0	7.0	7.0	12	20
Measuring Range	Temp. Range	4°C~95°C								
	Temp. Difference Range	3°C~70°C(Min. value of ex-factory is 0.2k)								
	Min. Temp. Difference	±0.1°C								
	Working Pressure	1.6Mpa								
Accuracy		Class II(Standard CJ128-2007)								
Type of Temperature Sensor		Pt1000 DIN/IEC751B								
Protection Class		IP66/IP68								
Power Supply		3.6V lithium battery with a service life of over 10years								
Working Environment		Class A Standard CJ128-2007)								
Communication Mode		RS-485/ Photoelectric Interface								
Display	LCD: 8-digit+ prompting character									
	Power: kW, Cumulative Heat Quantity: kW·h or MJ, Display Range: 0-9999999.9, Instantaneous Flowrate: m ³ /h, Cumulative Flowrate: m ³ , Temperature of Supply & Return Water: °C Temperature Difference: °C									
	Cumulative Heat Supply Time: h, Date: Y/M/D, Clock: h/m/s									
Display Resolution		Heat Quantity: 0.1 kW·h, Cumulative Flowrate: 0.001 m ³ , Temperature: 0.01°C, Temperature Difference: 0.01°C,								
Data Storage		EEPROM(A max of 24 mouths' data and the max heat power each month can be stored and read via photoelectric interface)								
Storage Temperature		-30°C~+55°C								
Weight		0.94kg	1.02kg	1.91kg	2.65kg	3.32kg				
Cable Length of Temp. Sensor		1.3m(The supply water temp. sensor has already been mounted on the flowrate transducer)								
Mounting Position		On supply water pipe								

Dimensions:



	CRL-H-15	CRL-H-20	CRL-H-25	CRL-H-32	CRL-H-40
Pipe Size	DN15	DN20	DN25	DN32	DN40
A-without connecting element	$G\frac{3}{4}B$	G1B	$G1\frac{1}{4}B$	$G1\frac{1}{2}B$	G2B
B-with connecting element	$R\frac{1}{2}B$	$R\frac{3}{4}B$	R1B	$R1\frac{1}{4}B$	$R1\frac{1}{2}B$
L	147	147	147	147	147
L1	110	130	160	180	200
H	114	116	119	127	135
W	94	94	94	94	94
S: Length of connecting element	45	46	59	60	62