Product Profile

CRL-G Ultrasonic Heat Meter

Scope of Application

Suitable for metering the energy consumption in apartments, high-rise buildings, heat-exchange stations and centralized heating/cooling systems.

Features

> Online flowrate self-verification function.

> No mechanical moving parts, no wear, long servicing life, no impact by poor water quality.

> Straight-through design without flow-restricting element, highly sensitive to a minimal flowrate.

> Micro-consumption technology, one battery can work continuously over 10 years.

> Integrated mechanical design with protection class of IP68, for effectively eliminating the effect on meter operating producted by vapours and condensate.

> Mounting in any installation position in difficult circumstances.

> Photoelectronic interface, RS-485 and M-Bus interface to achieve remote meter reading for easier centralized management.

> Recyclable stainless-steel pipe for the reduction of use costs.

> Energy saving and environmental protection, no casting, no pollution and material saving.

> High-quality seamless pipe made of stainless steel, precision machining by robot workstation.

> Intelligent manufacturing for flexible customization.

Product Profile

Technical Parameters

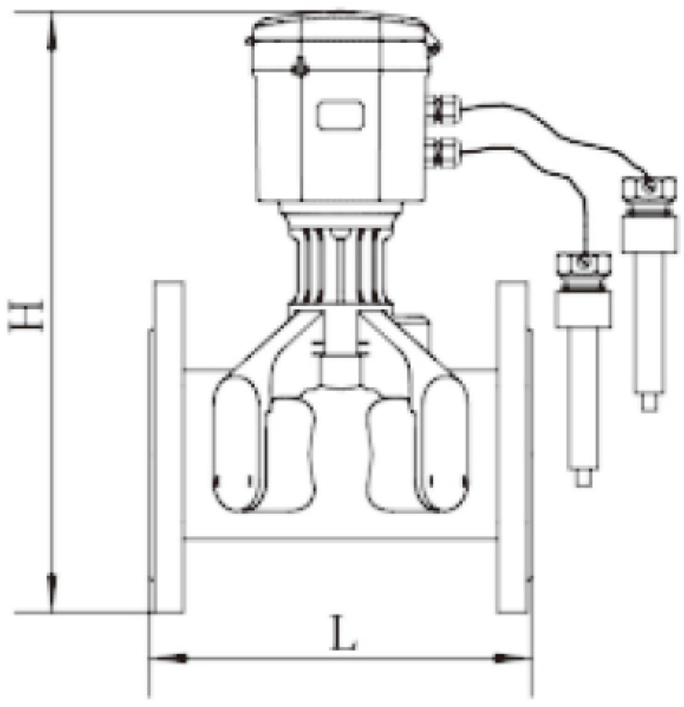
Item		Parameter
Material of Pipe Section		Steel or cast iron
Nominal Diameter（mm）		DN50～DN400
Measuring Range	Temperature Range（℃）	4～130 (Specify while exceeding the range)
	Temperature Difference Range（K）	3～70 (Min. value of ex-factory is 0.2K)
	Min. Temperature Pair Error（℃）	±0.1
	Max. Admissible Working Pressure（MPa）	1.6/2.5 (Standard is 1.6, specify while exceeding the range)
Accuracy Class		Class 2
Type of Temperature Sensor		Pt1000, DIN/IEC751B
Protection Class		IP68
Power Supply		Lithium battery powered 3.6V, one battery can work continuously over 10 years
		DC10V～36V (Specify while ordering)
		AC220V±10%, 50Hz (A power adapter is required, specify while ordering)
Power Consumption (mW)		<0.4
Working Environment		Class B/C/D
Data Communication	Photoelectric interface	Baudrate: 2400bps, GB/T 26831 protocol
	RS-485/M-Bus	Baudrate:2400bps, 4800bps, 9600bps selectable, default: 2400bps, Transmission distance≤1200m; GB/T 26831 protocol, CJ/T 188 protocol, Huizhong protocol, Modbus RTU protocol selectable, default: Huizhong protocol
Values Displayed		LCD, 10-digital + prompting character, word height 12mm
		Heat quantity MW·h or GJ, Thermal power MW
		Instantaneous flowrate m³/h, Cumulative flowrate m³, Supply water temperature℃, Return water temperature ℃, Temperature difference K, Accumulated effective running time h
		Date: Year/Month/Day, Time: Hour/Minute/Second
		Display range of cumulative heat quantity: 0～999999.99MW·h
Display Resolution		Heat quantity 0.01MW·h or 0.1GJ, Thermal power 0.1kW, Cumulative flowrate 0.1m³, Temperature 0.01℃, Temperature difference 0.01K
Storage Temperature（℃）		–25~55
Power Supply		Heat quantity, cumulative flowrate, corresponding time, maximum thermal power of current month can be stored by month. Latest 24 months' data can be stored
Installation Position		Water supply pipe (For special requirement please specify while ordering)

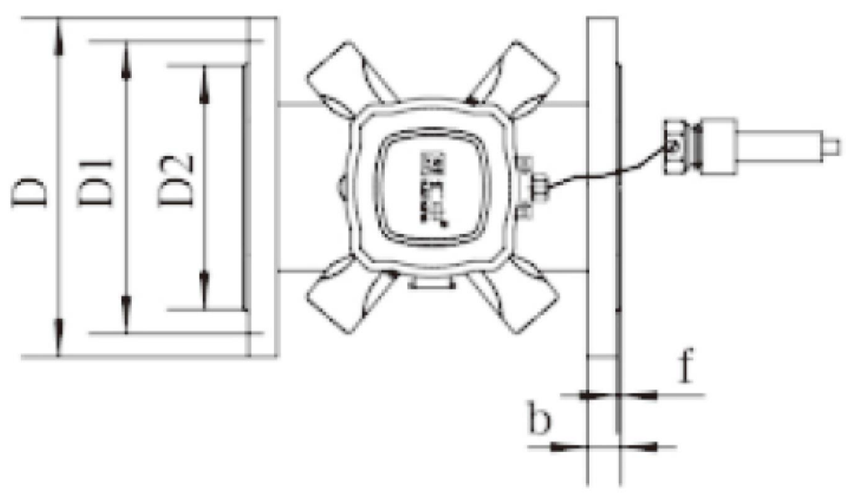
Product Profile

Flowrate and Heat Quantity Parameters:

Nominal diameter (mm)		DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN400
Dynamic Range (m^3/h)		100									
Starting Flowrate (m^3/h)		0.014	0.024	0.036	0.057	0.088	0.127	0.226	0.353	0.509	0.905
Min. Flowrate q_{min} (m^3/h)		0.15	0.25	0.40	0.60	1.00	1.50	2.50	4.00	6.00	10.00
Max. Flowrate q_{max} (m^3/h)		30	50	80	120	200	300	500	800	1200	2000
Permanent Flowrate q_p (m^3/h)		15	25	40	60	100	150	250	400	600	1000
Cumulative Flowrate	Max. Reading (m^3)	9999999.9									
	Min. Reading (m^3)	0.1									
Cumulative Heat Quantity	Max. Reading (MW·h)	999999.99									
	Min. Reading (MW·h)	0.01									

Dimension: (Plastic Casing)





Flange-connected version

Nominal Diameter (mm)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
D	165	185	200	220	250	285	340	405	460	520	580
D1	125	145	160	180	210	240	295	355	410	470	525
D2	99	118	132	156	184	211	266	319	370	438	490
f	3	3	3	3	3	3	3	3	4	4	4
b	20	22	20	22	22	24	24	26	28	35	38
nXd	4Xφ18	4Xφ18	8Xφ18	8Xφ18	8Xφ18	8Xφ23	12Xφ23	12Xφ27	12Xφ27	16Xφ26	16Xφ30
L	200	200	225	250	250	300	350	400	450	500	600
H	333	348	366	384	413	443	503	641	695	751	806
Pressure(MPa)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Remarks	d-Diameter of flange connection hole n-Number of flange connecting hole D1-Diameter of flange's central connection hole										

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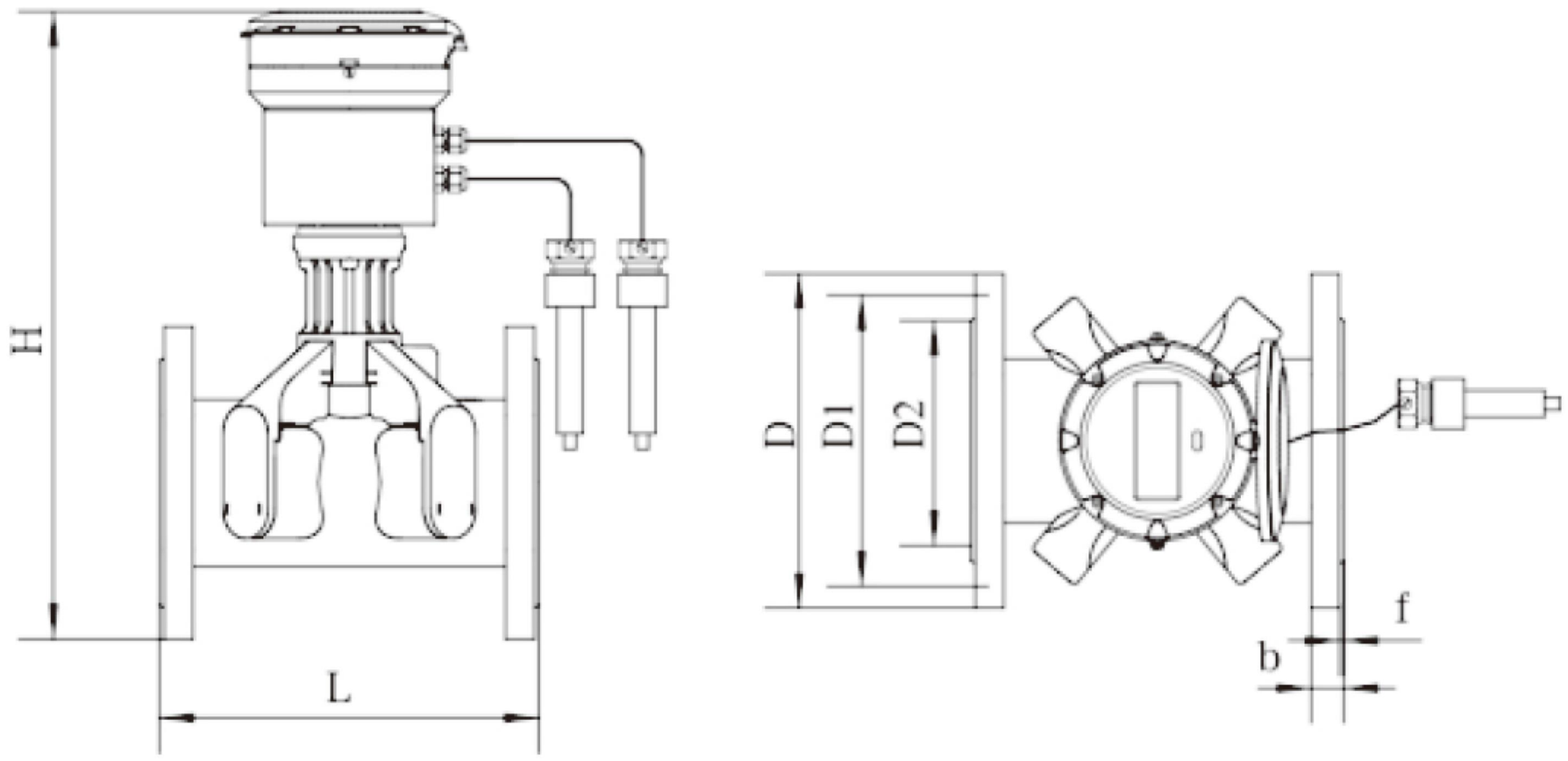
Flange-connected version

Nominal Diameter (mm)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
D	165	185	200	235	270	300	360	425	485	555	620
D1	125	145	160	190	220	250	310	370	430	490	550
D2	99	118	132	156	184	211	274	330	389	450	505
f	3	3	3	3	3	3	3	3	4	4	4
b	20	22	24	24	26	28	30	32	34	42	46
nXd	4Xφ18	4Xφ18	8Xφ18	8Xφ23	8Xφ27	8Xφ27	12Xφ27	12Xφ30	16Xφ30	16Xφ33	16Xφ36
L	200	200	225	250	250	300	350	400	450	500	600
H	333	348	366	388	419	449	510	652	708	769	826
Pressure(MPa)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Remarks	d-Diameter of flange connection hole n-Number of flange connecting hole D1-Diameter of flange's central connection hole										

Dimension: (Metal Casing)



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D1	125	145	160	180	210	240	295	355	410	525
D2	99	118	132	156	184	211	266	319	370	490
f	3	3	3	3	3	3	3	3	4	4
b	20	22	20	22	22	24	24	26	28	38
nXd	4Xφ18	4Xφ18	8Xφ18	8Xφ18	8Xφ18	8Xφ23	12Xφ23	12Xφ27	12Xφ27	16Xφ30
L	200	200	225	250	250	300	350	400	450	600
H	372	387	405	423	452	482	542	669	723	833
Pressure(MPa)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Remarks	d-Diameter of flange connection hole n-Number of flange connecting hole D1-Diameter of flange's central connection hole									

Flange-connected version

Nominal Diameter (mm)	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN400
D	165	185	200	235	270	300	360	425	485	620
D1	125	145	160	190	220	250	310	370	430	550
D2	99	118	132	156	184	211	274	330	389	505
f	3	3	3	3	3	3	3	3	4	4
b	20	22	24	24	26	28	30	32	34	46
nXd	4Xφ18	4Xφ18	8Xφ18	8Xφ23	8Xφ27	8Xφ27	12Xφ27	12Xφ30	16Xφ30	16Xφ36
L	200	200	225	250	250	300	350	400	450	600
H	372	387	405	427	458	488	549	679	735	853
Pressure(MPa)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Remarks	d-Diameter of flange connection hole n-Number of flange connecting hole D1-Diameterof flange's central connection hole									