

RC82 Serials Ultrasonic Heat(cooling) Meter

RC82 Series ultrasonic heating (cooling, heating-cooling) meters are used for energy measurement of heating or chilled water in residential and small commercial heating and air conditioning systems. They are available in DN15...40 and have an electronic energy calculator with separate register for heating and cooling energy. They are fitted with an M-Bus interface for integration into M-Bus networks.



Features

- Internal 3.6V lithium battery power supplying;
- Calculator case's unique design, users can meet multi-angle data is read;
- Support supply water and backwater pipeline position installation to satisfy users different requirements.
(Default installation: supply water position.)
- Support level and vertical installation to satisfy users' different requirements.
- Support optical interface, RS485 interface and M-Bus interface etc. multi-communication mode, easy for centralized data management by user.
- NOWA-testing in the parallel mode is applicable.

Technical Data

Profile

Application	Heating/cooling/heating-cooling metering
Approval	MID
Mount position	Vertical or horizontal
Calculator protection class	IP 65
Battery supply	3.6V lithium battery up to 8 years lifetime
Temperature sensor type	PT1000
Cable length of temperature sensor	1.5 meter (or customized)
Test possibilities	display, instruction (compatible with NOWA software)

Calculator basic features

Environmental class	EN1434/MID E1+M1
Ambient operating temperature	A Class (5 ~ 55) °C or B Class(-25 ~ +55) °C optional
Ambient storage temperature	-20 ~ +70 °C
Protection class	IP 65
Radio system	Wireless M-bus can be integrated by 868,434,169MHz (OMS)
Standard interface	Optical interface
Interfaces optional	1 Slots for modules with M-Bus, RS485, Pulse Output
Temperature range heating	4 ~ 95°C
Temperature range cooling	4 ~ 95°C
Extensive data memory	720 days flow data and heat data
RS485 communication	red is vcc(5~24VDC),white is B,green is A,black is GND
Pulse output	red is output and black is GND

Display

Display indication	LCD, 8 digits
Units	MWh - kWh - GJ - Gcal - °C -K - m ³ - m ³ /h
Total values	99,999,999 - 9,999,999.9 - 999,999.99 - 99,999.999
Values displayed	Energy /Power/Volume/ Flow Rate/Temperature and more

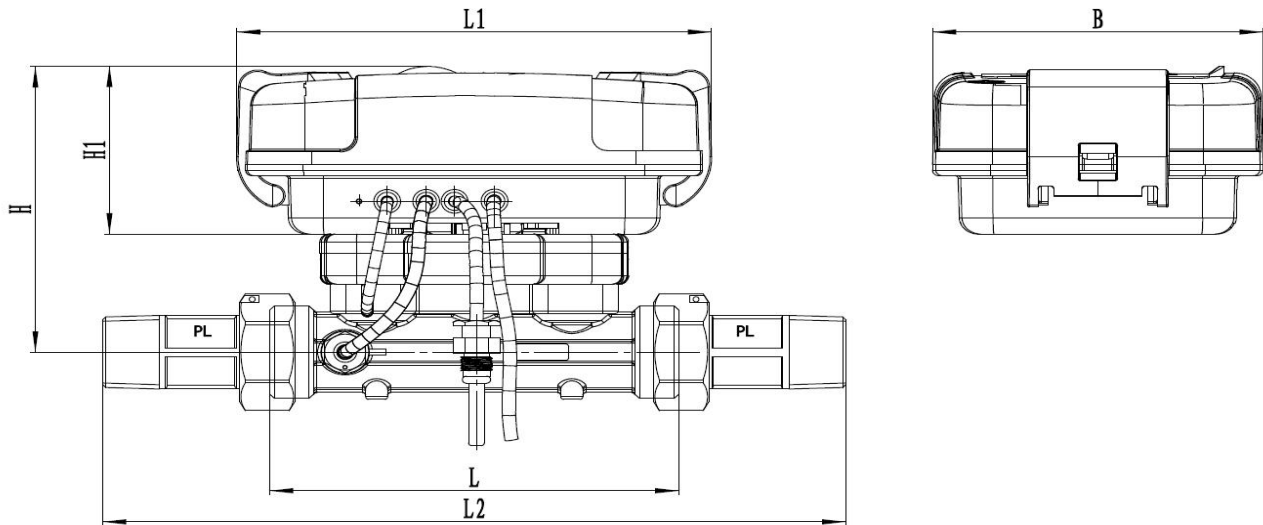
Interfaces

Optical	Band rate 2400
M-Bus	Band rate 300-9600
RS485	Band rate 300-9600
Pulse output	One pulse output

Temperature input

Starting temperature difference	$\Delta\Theta$	K	0.25
Min. temperature difference	$\Delta\Theta_{min}$	K	3 (2K can be customized)
Max. temperature difference	$\Delta\Theta_{max}$	K	60 (105 can be customized)
Absolute Temperature measuring range	Θ	°C	4 ~ 95 (4-130 can be customized)

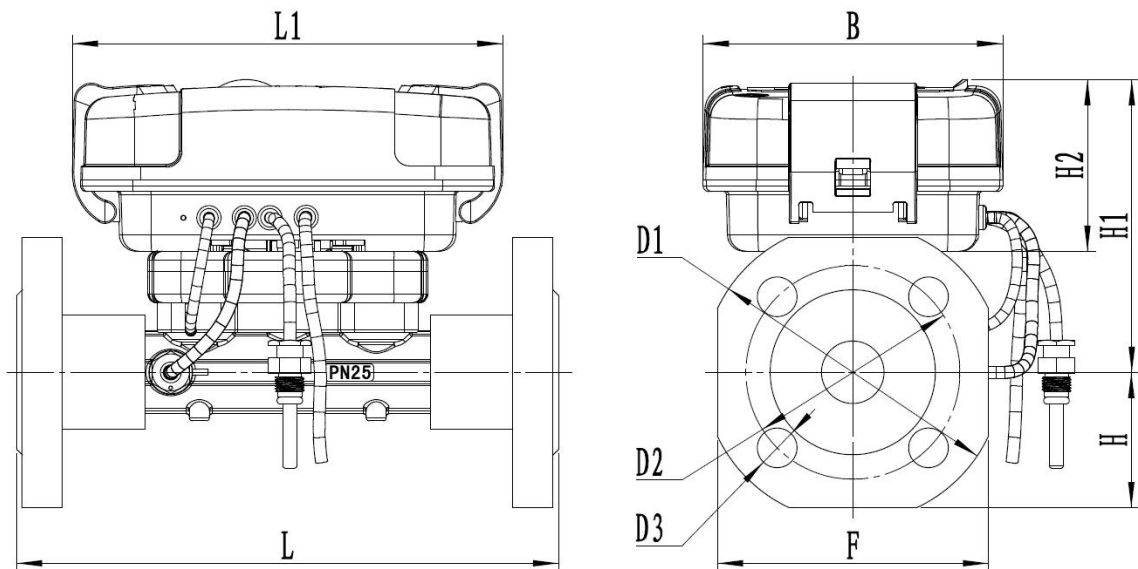
Screw thread connection version



Nominal flow rate	q _p	m ³ /h	0.6	0.6	0.6	1.5	1.5	1.5	2.5	2.5
Nominal diameter	DN	mm	15	20	20	15	20	20	20	20
Body Length	L	mm	110	130	190	110	130	190	130	190
Overall Length	L2	mm	200	230	290	200	230	290	230	290
Calculator length	L1	mm	150	150	150	150	150	150	150	150
Height	H		100	103	103	100	103	103	103	103
Calculator Height	H1		60	60	60	60	60	60	60	60
Calculator width	B		105	105	105	105	105	105	105	105
Screw thread on meter		inch	G3/4B	G1/4B	G1B	G3/4B	G1B	G1B	G1B	G1B
Screw thread of coupling		inch	R1/2	R3/4	R3/4	R1/2	R3/4	R3/4	R3/4	R3/4
Working pressure		Mpa	1.6/2.5							
Q _p :Q _i			50:1, 100:1, 250:1							

Nominal flow rate	q_p	m ³ /h	3.5	6	6	10
Nominal diameter	DN	mm	25	25	32	40
Body Length	L	mm	160	260	180/260	200/300
Overall Length	L2	mm	260	360	280/360	300/400
Calculator length	L1	mm	150	150	150	150
Height	H		106	106	109	113
Calculator Height	H1		60	60	60	60
Calculator width	B		105	105	105	105
Screw thread on meter		inch	G1 1/4B	G1 1/4B	G1 1/2B	G2B
Screw thread of coupling		inch	R1	R1	R1 1/4	R1 1/2
Working pressure		Mpa	1.6/2.5			
$Q_p : Q_i$			50:1, 100:1, 250:1			

Flange Connection Version



Nominal flow rate	q _p	m ³ /h	0.6	1	1.5	2.5	3.5	6	6	10
Nominal diameter	DN	mm	20	20	20	20	25	25	32	40
Overall Length	L	mm	190	190	190	190	260	260	260	300
Length of calculator	L1	mm	150	150	150	150	150	150	150	150
Height	H	mm	47.5	47.5	47.5	47.5	52.5	52.5	62.5	70
Height1	H1	mm	103	103	103	103	106	106	109	109
Calculator Height	H2	mm	60	60	60	60	60	60	60	60
Calculator width	B	mm	105	105	105	105	105	105	105	105
Flange dimension	F	mm	95	95	95	95	105	105	125	140
Flange diameter	D1	mm	105	105	105	105	115	115	140	150
Hole circle diameter	D2	mm	75	75	75	75	85	85	100	110
Screw hole diameter	D3	mm	14	14	14	14	14	14	18	18
Number of screw holes		pcs	4	4	4	4	4	4	4	4
Max working pressure		MPa	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5