

BTU - Ultrasonic Heat Meter



Features

- ◆ The ultrasonic compact energy meter can be used for measuring the energy consumption in Heating/cooling applications.
- ◆ Internal high capacity 3.6V lithium battery.
- ◆ Can be mounted on supply pipeline or on return pipeline, and can be mounted in either horizontal or vertical direction.
- ◆ Compatible with CJ188, EN1434 (GB/T26831) protocols.
- ◆ Having optical interface, RS485 or M-Bus interface.
- ◆ Compatible with NOWA protocol.
- ◆ MID certification approval.

* Please note Measurement Canada does not approve BTU Meters for Revenue or billing purpose

intellimeter
CANADA INC.
Innovative Metering Solutions

1125 Squires Beach Road, Pickering, ON L1W 3T9
Tel: (905) 839-9199 • Fax: (905) 839-9198intellimeter.ca

www.intellimeter.ca


i-meter
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Profile

Application	Heating, Cooling, Heating-Cooling Metering
Approval	MID
Mount Position	Vertical or Horizontal
Calculator Protection Class	IP 65
Battery Supply	3.6 lithium battery up to 11 year lifetime
Mains Supply	230 AC/110V DC 24V
Temperature Sensor Type	PT1000, PT500, PT100
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	IP65
Communication	2 Communication Interfaces e.g. M-Bus + M-Bus, M-Bus +
Integrated Radio	Wireless M-bus, Radio 868,434,169 MHz (OMS)
Standard Interface	Optical interface
Interfaces optional	2 slots for modules with M-Bus, RS485, Pulse Output, Pulse Input, 4-20mA GPRS
Temperature range heating	4~95°C, 130°C can be customized
Temperature range cooling	4~95°C
Extensive data memory	720 days flow data and heat data

Display

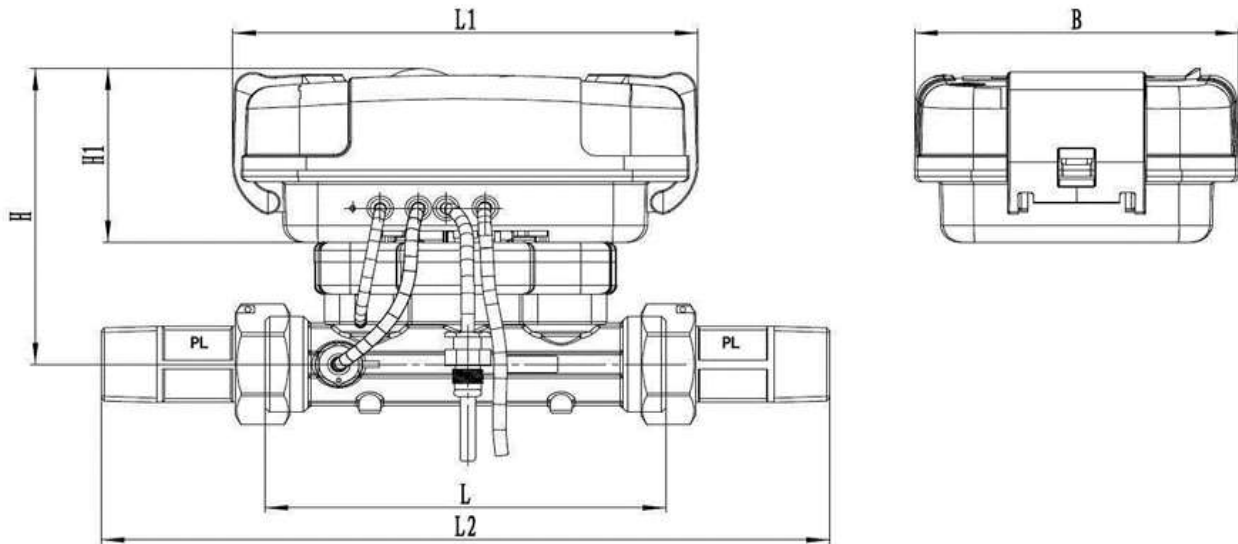
Display Indication	LCD, 8 Digits
Units	MWh –kWh –GJ – Gcal -°C -K – m ³ –m ³ /h
Total Values	99, 999, 999 – 9, 999, 999.9 – 999,999.99 – 99,999.999
Values Displayed	Energy – Power, Volume, Flow Rate – Temperature

Interfaces

Optical	Band rate 2400
M-Bus	Band rate 300-9600
RS485	Band rate 300-9600
Pulse Input and Pulse Output	With two pulse inputs and one pulse output

Temperature Input

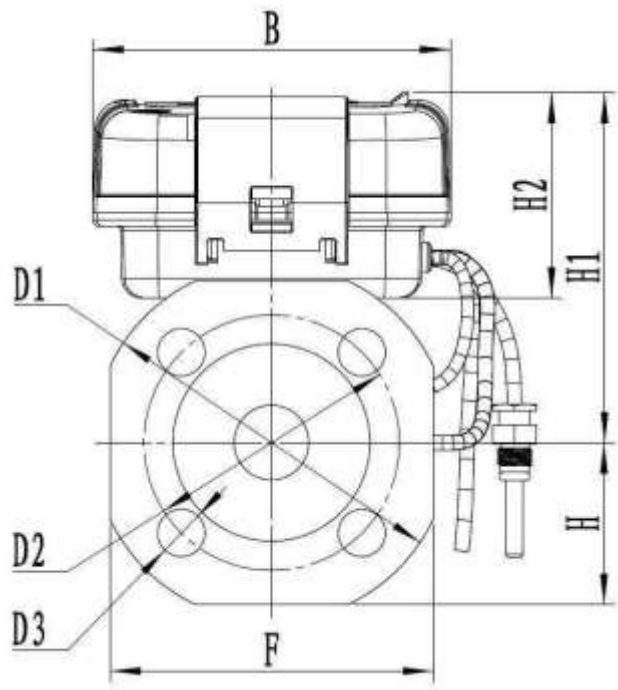
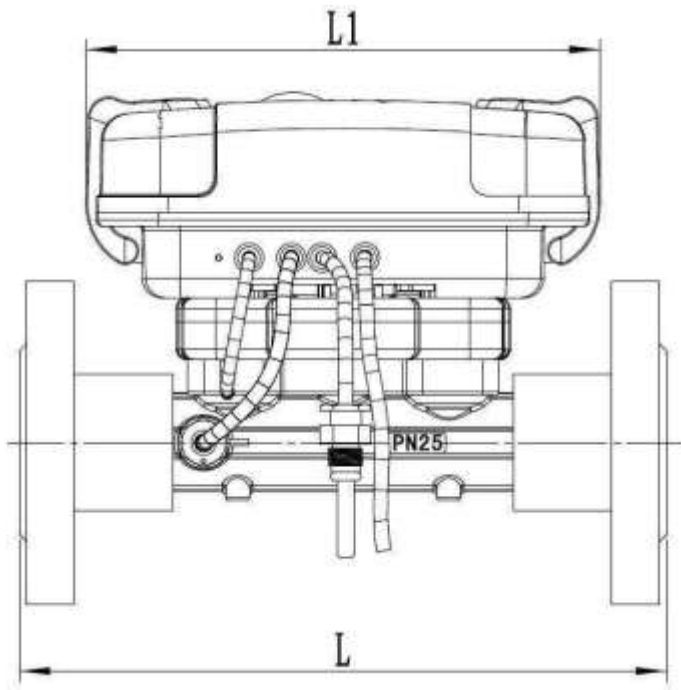
Starting temperature difference	$\Delta \Theta$	K	0.25
Min. temperature difference	$\Delta \Theta$ min	K	3 (2K can be customized)
Max. temperature difference	$\Delta \Theta$ max	K	60 (105 can be customized)
Absolute temperature measuring range	Θ	$^{\circ}\text{C}$	4 ~ 95 (4-130 can be customized)



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	20	230	290	230	290
Calculator length	L1	mm	150	150	150	150	150	150	150	150
Height	H	mm	100	103	103	100	103	103	103	103
Calculator height	H1	mm	60	60	60	60	60	60	60	60
Calculator width	B	mm	105	105	105	105	105	105	105	105
Screw thread on meter		inch	G3/4B	G1B	G1B	G3/4B	G1B	G1B	G1B	G1B
Screw thread of		inch	R½	R¾	R¾	R½	R¾	R¾	R¾	R¾
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	mm	106	106	109	113
Calculator height	H1	mm	60	60	60	60
Calculator width	B	mm	105	105	105	105
Screw thread on meter		inch	G1 ¼B	G1 ¼B	G1 ½B	G2B
Screw thread of		inch	R1	R1	R1 ¼	R1 ½
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	1.0	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
Height 1	H1	mm	103	103	103	103	106	106	109	109
Height of Calculator	H2	mm	60	60	60	60	60	60	60	60
Width of Calculator	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	inch	75	75	75	75	85	85	100	100
Screw hole diameter	D3	inch	14	14	14	14	14	14	18	18
Number of screw		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

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