



HEME Electromagnetic Energy Meter

Electromagnetic BTU meter meter comprised of the magnetic flow meter and a pair of PT1000 temperature sensors for heating or cooling measurement. Widely used for apartment buildings, commercial & municipal buildings.

- Wide range of nominal diameters (DN15-1000)
- High accuracy
- Robust & reliable
- Open comms protocols for easy integration

Applications

- Hot water / chilled water energy metering
- Cost allocation/Sub metering
- Energy performance monitoring
- Condenser water monitoring

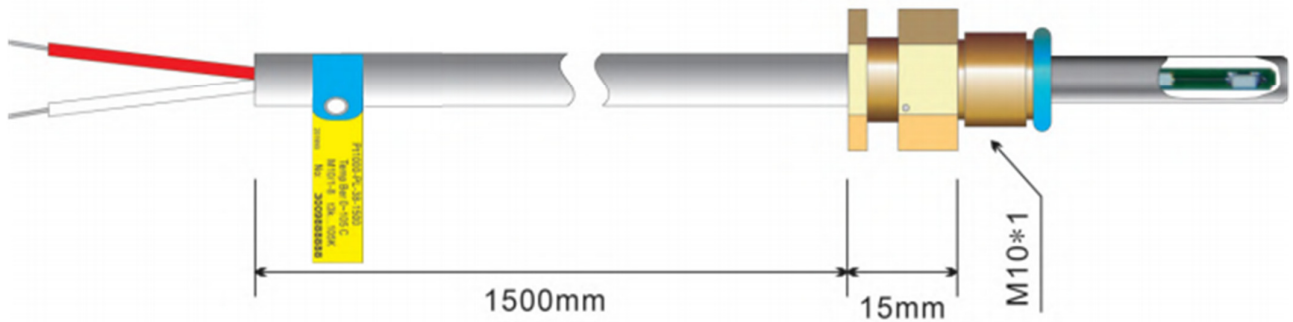


Technical Data

Size	DN15-DN1000 (1/2"-40")
Accuracy	±2% of reading at flow rate ≥0.5m/s
Temperature sensor	PT1000 with 3m cable, max 15m available
Velocity	0.1~15 m/s
Repeatability	±0.17% of reading
Structure	Compact / remote, cable: 10m (standard), max 100m available
Conductivity	≥20μS/cm. 5 μS/cm is optional
Protection Grade	Converter: IP65 std, IP67 optional
	Sensor: IP65 std, IP68 (submersible, only available for remote type)
Electrode	SS316L, Hastelloy C, Hastelloy B, Titanium, Tantalum, Platinoidium
Power Supply	8~36 VDC, 85~265 VAC, 3.6V lithium battery
Power Consumption	<20W
Signal Output and Communication	4~20 mA, Pulse, RS485
Ambient Temperature	-20°C~60°C
Fluid Temperature	Compact: -20~80°C, Remote: -20~120°C
Liner Material	PTFE (-20°C~120°C, DN15-DN1600)
	FEP (-20°C~120°C, DN25-DN1800)
	PFA (-20°C~120°C, DN3-DN800)
	Polyurethane (-10°C~60°C, DN40-DN1600)
	Ceramic (-20°C~180°C, DN15-DN200)
Process connection	Flange, tri-clamp, wafer, thread, insertion
Sensor Material	Measuring tube: SS304
	Flange & housing: carbon steel (std), SS304 / SS316 optional
Transmitter Material	Aluminium alloy with epoxy painting
Function	High and low alarm, exciting alarm, empty pipe alarm, self-diagnosis
Totalizers	Three built-in totalizers: forward flow, reverse flow and net flow
Display Unit	MJ, GJ, KWh, Mwh



PT1000 Temperature Sensor – DN15...32



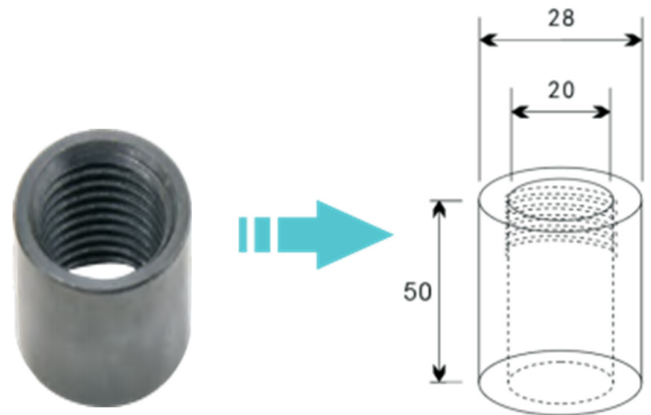
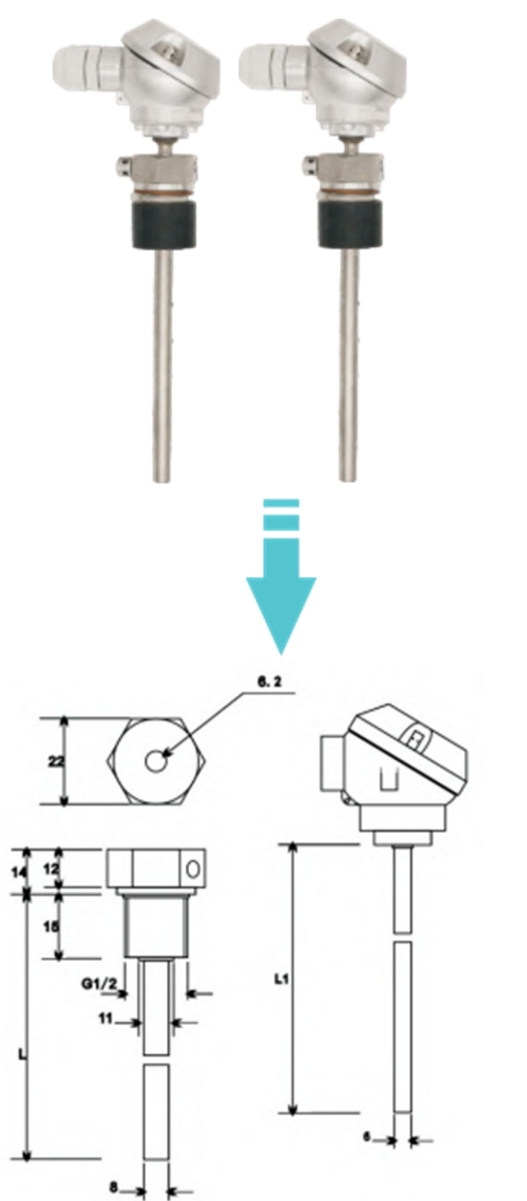
Standard: IEC751 and CJ128-2007
Tolerant Temperature range: 0~105°C
Accuracy: IEC class B
Test point: 0°C, 60°C, 95°C
Sensor diameter: 5mm

Sensor length: 45mm
Cable length: 1.5m standard, optional
Application pipe size: DN15, DN25, DN32
Material: SS304

DN15-DN32

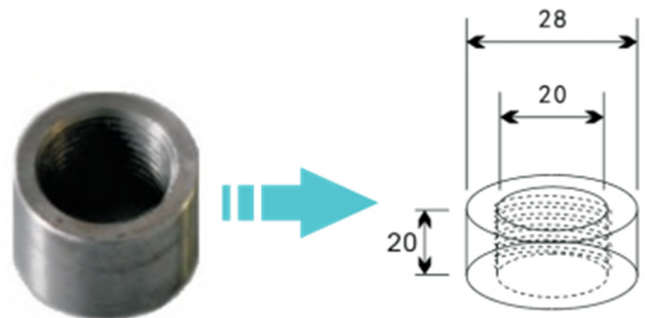


PT1000 Temperature Sensor – DN40...600



50mm Nipple (optional)

202500-1



20mm Nipple Union (standard)

202500-2

Length of measure temperature (L1)	Nominal Size	Thread
50mm	DN40-DN50	G1/2"
70mm	DN65-DN100	
90mm	DN125-DN150	
130mm	DN200-DN300	
210mm	DN350-DN600	

Standard: IEC751 and CJ128-2007

Tolerant Temperature range: 0~200°C

Accuracy: IEC class B

Test Point: 0°C, 60°C, 120°C

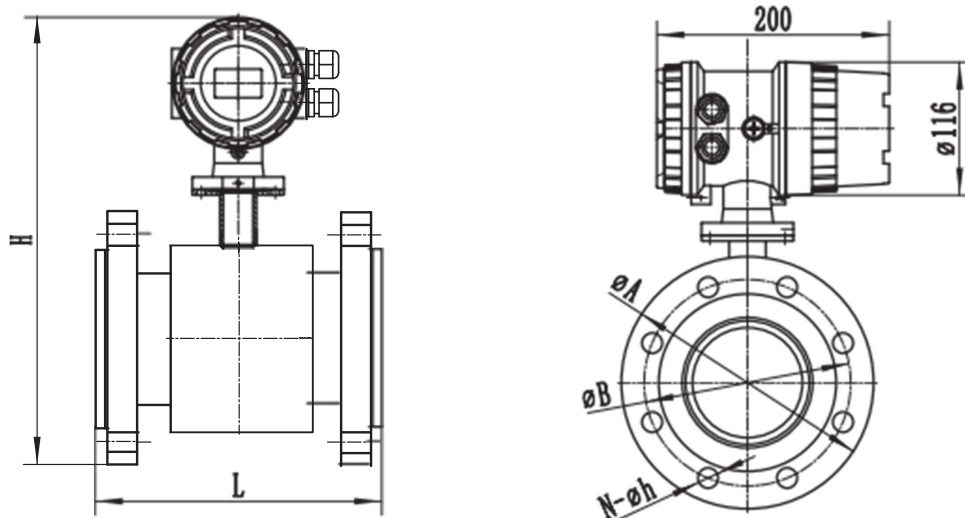
Sensor diameter: 8mm, 10MM

Cable length: 5m standard, optional

Material: SS304



Dimensions - Compact

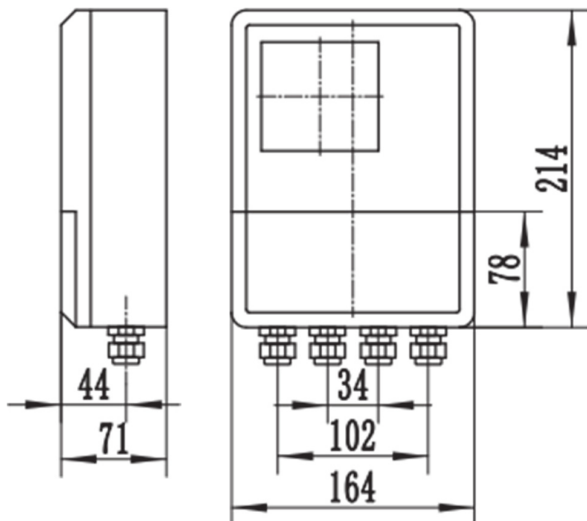
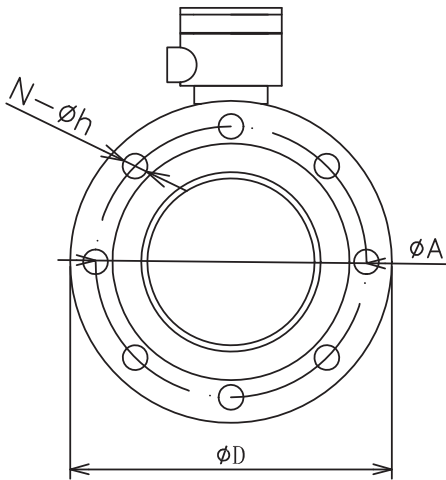
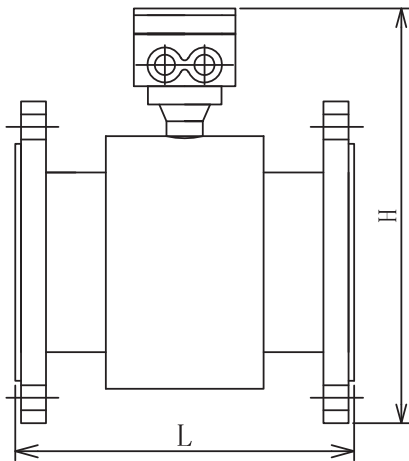


Nominal Size	Flange Standard	Nominal Pressure	H(mm)	L(mm)	ϕA (mm)	ϕB (mm)	N- ϕh (mm)
DN15	DIN	PN16	296	200	95	65	4- $\phi 14$
DN20	DIN	PN16	301	200	105	75	4- $\phi 14$
DN25	DIN	PN16	306	200	115	85	4- $\phi 14$
DN32	DIN	PN16	318	200	140	100	4- $\phi 18$
DN40	DIN	PN16	328	200	150	110	4- $\phi 18$
DN50	DIN	PN16	344	200	165	125	4- $\phi 18$
DN65	DIN	PN16	361	200	185	145	4- $\phi 18$
DN80	DIN	PN16	377	200	200	160	8- $\phi 18$
DN100	DIN	PN16	396	250	220	180	8- $\phi 18$
DN125	DIN	PN16	421	250	250	210	8- $\phi 18$
DN150	DIN	PN16	454	300	285	240	8- $\phi 22$
DN200	DIN	PN16	511	350	340	295	12- $\phi 22$
DN250	DIN	PN16	587	450	405	355	12- $\phi 26$
DN300	DIN	PN16	640	500	460	410	12- $\phi 26$
DN350	DIN	PN16	696	550	520	470	16- $\phi 26$
DN400	DIN	PN16	751	600	580	525	16- $\phi 30$
DN450	DIN	PN16	781	600	640	585	20- $\phi 30$
DN500	DIN	PN16	818	600	715	650	20- $\phi 33$
DN600	DIN	PN16	881	600	840	770	20- $\phi 36$

DN15-DN600 Compact Electromagnetic BTU Meter with DIN Drawing



Dimensions – Remote format

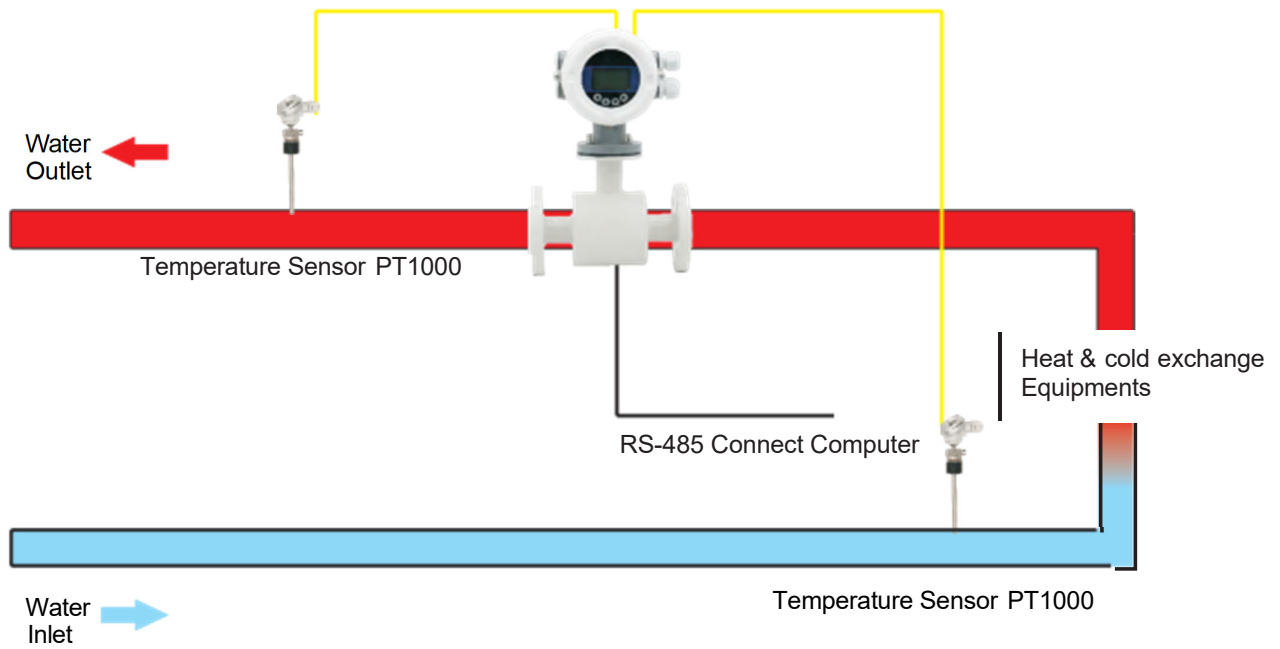


DN15-DN600 Remote Electromagnetic BTU Meter with DIN Drawing

Remote Mag Flow Meter Size							
Size	Nominal Pressure	L (mm)	φD (mm)	φA (mm)	H (mm)	N-φh (mm)	
15	PN16	200	95	65	220	4-φ14	
20		200	105	75	220	4-φ14	
25		200	115	85	223	4-φ14	
32		200	140	100	240	4-φ18	
40		200	150	110	250	4-φ18	
50		200	165	125	263	4-φ18	
65		200	185	145	283	4-φ18	
80		200	200	160	290	8-φ18	
100		250	220	180	310	8-φ18	
125		250	250	210	340	8-φ18	
150		300	285	240	373	8-φ22	
200		350	340	295	430	12-φ22	
250		450	405	355	495	12-φ26	
300		PN10	500	445	400	540	12-φ22
350			550	505	460	595	16-φ22
400	600		565	515	658	16-φ26	
450	600		615	565	708	20-φ26	
500	600		670	620	760	20-φ26	
600	600		780	725	882	20-φ30	



Typical Installation





Model Selection

HEME		x	x	x	x	x	x	x	x	x	x
Caliber size	DN15-DN1000 (1/2"-40")										
Structure	Compact	1									
	Remote	2									
	Compact with explosion proof	3									
	Remote with explosion proof	4									
Lining Material	PTFE	1									
	FEP	2									
	PFA	3									
	Neoprene	4									
	Polyurethane	5									
	Hard Rubber	6									
	Ceramic	7									
	Others	8									
Electrode Material	SS316L				1						
	Hastelloy B				2						
	Hastelloy C				3						
	Titanium				4						
	Tantalum				5						
	Platinum-iridium				6						
	Stainless steel covered with tungsten carbide				7						
	Others				8						
Sensor Material	Carbon steel					1					
	SS304					2					
	SS316					3					
Power Supply	20~36 VDC							G			
	85~265 VAC							E			
Signal Output / Communication	4~20 mA + Pulse + RS485 MODBUS								A		
Flange	DIN D10: DIN PN10, D16: DIN PN16, D25: DIN PN25, D40: DIN PN40									D**	
	ANSI A15: ANSI 150#, A30: ANSI 300#, A60: ANSI 600#									A**	
Process Connection	JIS J10: JIS 10K, J20: JIS 20K, J30: JIS 30K									J**	
	Others									O	
Protection Grade	IP65 Transmitter + IP65 sensor									1	
	IP65 Transmitter + IP68 sensor (remote)									2	
Transmitter	Square									A	
	Round									B	