

- >> Works with both heating and cooling systems
- >> High accuracy
- >> No moving parts
- >> Minimal pressure loss
- >> Horizontal or vertical installation
- >> M-bus communication
- >> Optional Modbus communication
- >> Automatic diagnostic function



## Ultrasonic cooling/heating energy metering

Cooling/Heating Energy Meter FX-BTU-DNxx-xx-M is energy measuring equipment which uses transient time ultrasonic signal and two temperature sensors to continuously measure, record and display energy consumption rate. Meter is available from DN20 pipe size with nominal flow of 1.5 m<sup>3</sup>/h up to DN200 pipe size and nominal flow of 250 m<sup>3</sup>/h. Pipe size from DN20 to DN40 come with external threaded screw connection and from pipe size DN50 to DN200 have flanges to connect to pipelines. Meters come with M-bus communication. Optional standalone meters with pulse outputs and networked models with Modbus communication are available.

### Technical features

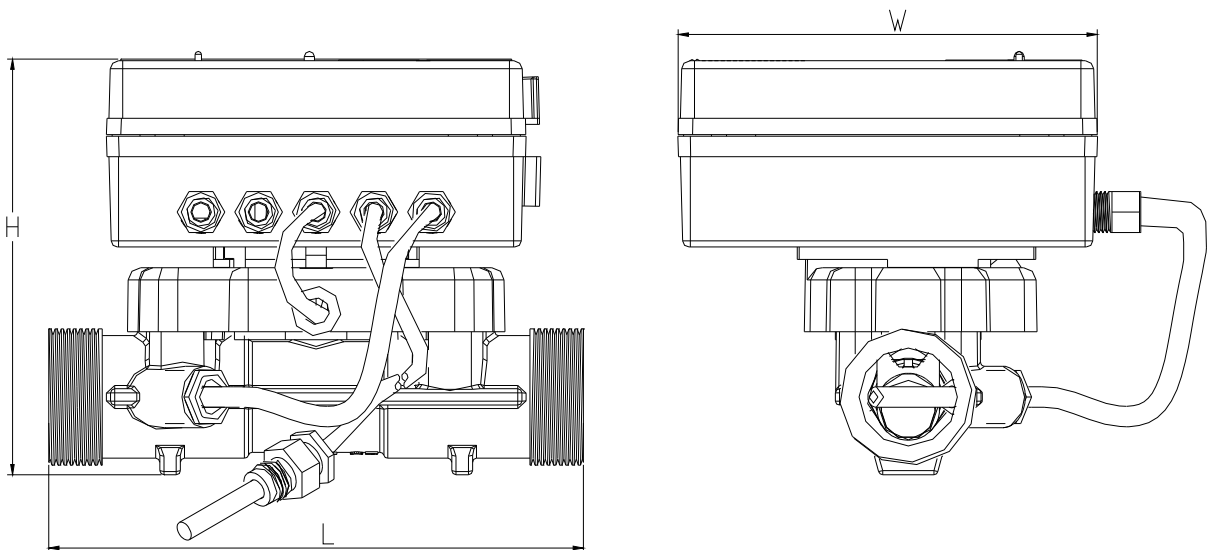
Heat or cooling conveying liquid:	Water (Clean)
Wetted Materials:	Brass
Range:	Qmin:Qmax = 1:100 (see Qmax on chart)
Accuracy Flow Meter:	±(2+0.02 Qp / Q)%
Accuracy Temperature:	±(0.3 + 0.05 * T)K; ΔT = T ± 0.1K
Process Temperature range:	2~95°C
Operating Temperature:	5~+55°C
Storing Temperature:	5~+55°C
Operating Humidity:	<93%RH
Enclosure protection:	IP65
Pressure loss:	<1.5psi (10 kPa)
Maximum admissible working pressure:	1.6MPa (16 bar)
Display:	8 digit LED
Temperature resolution:	0.01°C
Power supply:	24 VAC/DC
Installation	Horizontal or vertical
Straight pipe section:	Mount a straight pipe section up to 10D upstream the meter and a straight pipe section up
Approvals:	CE
Manufacturing Process:	ISO9001

Model LX-BTU-	DN20-1.5	DN20-2.5	DN25-3.5	DN32-6.0	DN40-10
Flow-rate	1.5	2.5	3.5	6.0	10.0
DN	20	20	25	32	40
$q_s$ (m <sup>3</sup> /h)	3.0	5.0	7.0	12.0	20.0
$q_p$ (m <sup>3</sup> /h)	1.5	2.5	3.5	6.0	10.0

$q_s$ ---The upper limit of the flow-rate (m<sup>3</sup>/h), at which the heat meter shall function for short periods, without the maximum permissible errors being exceeded.

$q_p$ ---The permanent flow-rate (m<sup>3</sup>/h), at which the heat meter shall function continuously without the maximum permissible errors being exceeded.

Model Number	Nominal Flow	DN (mm)	Flow Sensor Connection		Height	Width
	m3/h		Length, L (mm)	Thread, D (inch)	H(mm)	W(mm)
LX-BTU-DN20-1.5	1.5	20	130	G1B	101	102
LX-BTU-DN20-2.5	2.5	20	130	G1B	101	102
LX-BTU-DN25-3.5	3.5	25	160	G1 <sup>1</sup> / <sub>4</sub> B	106	102
LX-BTU-DN32-6.0	6	32	180	G1 <sup>1</sup> / <sub>2</sub> B	113	102
LX-BTU-DN40-10	10	40	200	G2B	121	102



## Part numbers

**FX-BTU-DN20-1.5-M**  
**FX-BTU-DN20-2.5-M**  
**FX-BTU-DN25-3.5-M**  
**FX-BTU-DN32-6.0-M**  
**FX-BTU-DN40-10-M**

DN20, Nominal flow 1.5 m<sup>3</sup>/h, Max flow 3.0 m<sup>3</sup>/h, M-bus  
 DN20, Nominal flow 2.5 m<sup>3</sup>/h, Max flow 5.0 m<sup>3</sup>/h, M-bus  
 DN25, Nominal flow 3.5 m<sup>3</sup>/h, Max flow 7.0 m<sup>3</sup>/h, M-bus  
 DN32, Nominal flow 6.0 m<sup>3</sup>/h, Max flow 12.0 m<sup>3</sup>/h, M-bus  
 DN40, Nominal flow 10.0 m<sup>3</sup>/h, Max flow 20.0 m<sup>3</sup>/h, M-bus

•Change -M ending to -MD ending to any type for Modbus or remove for standalone meter