



Product Description

The NCMBU is an ultrasonic BTU meter designed to measure heating and cooling energy. The meter comes with temperature sensors and standard M-Bus connectivity and consists of a primary flow sensor and a calculator with approved type pair of temperature sensors with Pt500 elements.

The meter comes with standard M-Bus connectivity by default.

The meters have a steel housing and flanged connections and available in various flow rates and other pipe sizes up to DN400.

The meter is MID approved and complies with Standard EN1434 and is available in the following flow rates and pipe sizes:

- DN150 (steel housing, flanged connection)
- DN200 (steel housing, flanged connection)
- DN250 (steel housing, flanged connection)
- DN300 (steel housing, flanged connection)
- DN350 (steel housing, flanged connection)
- DN400 (steel housing, flanged connection)

Features and Benefits

- ▶ Ultrasonic BTU Meter
- ▶ Heating and cooling energy measurement
- ▶ Optional communication modules
- ▶ Two flow measurement channels
- ▶ Two pressure measurement channels
- ▶ Two pulse inputs for additional flow sensors
- ▶ MID approved
- ▶ Available in various flow rates and pipe sizes

Data Recording and Storage

- ▶ Following daily, weekly and monthly parameter values are recorded in heat meter memory
- ▶ Absolute integral instantaneous parameter values
- ▶ Hourly, weekly and monthly alterations of integral parameters
- ▶ Hourly, weekly and monthly average values for all measured temperature and pressure values
- ▶ Error (fault) and information codes that occurred during the last hour, day and month

Technical Information

Approval	MID compliance with EN1434
Accuracy Class	2
Qp (Nominal Flow)	See table
Range Qp/Qi	R 100/250 m ³ /h
Upper flow rate	See table
DN	See table
Joining the pipeline	Flanged connection, see table
Mounting length	See table
Flow Sensor	Ultrasonic, Cable length 3 Mtrs (Default)
Medium temperature	0° C to 130° C
Nominal pressure	PN16/25 Bar
Temp. Measurement	Pt500, 0° C to 180° C
Protection Class	IP65 (Calculator) IP65 (Flow Sensor default) IP67/68 Options available
Environment protection	Class C / EN 1434-1
Ambient temperature	5° C to 55° C (Calculator)
Battery lifetime	> 11 years
Calculator monitoring	On Meter body or separately on standard DIN rail
Power Supply	From internal battery or 230V AC Power Source

LCD Indicator

- ▶ The device is equipped with 8 digits Liquid Crystal Display (LCD) with special symbols to display parameters, measurement units and operation modes
- ▶ The following information can be displayed
 - ▶ integral and instantaneous measured parameters
 - ▶ archive data and set day data
 - ▶ device configuration information
- ▶ Programmable LCD displaying parameters

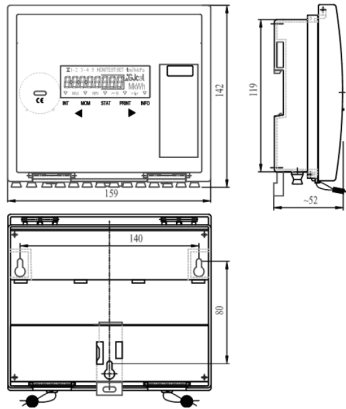


Supply Voltage

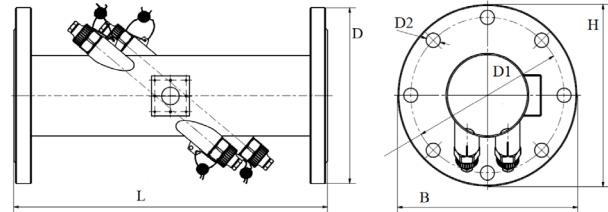
- ▶ Internal Battery 3.6 VDC, D-cell lithium
- ▶ Replacement interval not less than 11 years
- ▶ Main supply AC (50±2) Hz, 230V
- ▶ Power supply <3 VA (only for meter)

NCMBTU150-400 Ultrasonic BTU Meters DN150-400

Dimensions



Calculator Dimensions
159mm X 142mm X 52mm



Flow Sensor Dimensions
(refer table below)

Meter Type	DN150 PN16	DN150 PN25	DN200 PN16	DN200 PN25	DN250 PN16	DN250 PN25	DN300 PN25	DN350 PN25	DN400 PN25
L (mm)	500	500	500	500	600	600	500	555	620
D (mm)	280	300	340	360	425	425	485	555	620
H (mm)	280	300	340	360	425	425	485	555	620
D1 (mm)	240	250	295	310	355	370	430	490	550
B (mm)	280	300	340	360	425	425	485	555	620
D2 (mm)	18	26	18	26	26	30	30	33	36
n (mm)	8	8	8	8	8	8	8	8	8

Nominal Flow Parameters

Meter Type	Flow Rate Qp, m ³ /h	Upper Rate Qp, m ³ /h	Overall length (mm)	Joining the pipe line	Pressure Loss at Qp, Bar
NCMBTU150FL	150	300	500	DN150FL	0.2 Bar
NCMBTU200FL	250	500	500	DN200FL	0.1 Bar
NCMBTU250FL	400	1120	600	DN250FL	0.1 Bar
NCMBTU300FL	560	1560	500	DN300FL	0.15 Bar
NCMBTU350FL	750	2100	550	DN350FL	0.1 Bar
NCMBTU400FL	950	2660	600	DN400FL	0.1 Bar

Ordering Codes

NCMBTU150FL	Ultrasonic BTU meter M-Bus, DN150 flanged
NCMBTU200FL	Ultrasonic BTU meter M-Bus, DN200 flanged
NCMBTU250FL	Ultrasonic BTU meter M-Bus, DN250 flanged
NCMBTU300FL	Ultrasonic BTU meter M-Bus, DN300 flanged
NCMBTU350FL	Ultrasonic BTU meter M-Bus, DN350 flanged
NCMBTU400FL	Ultrasonic BTU meter M-Bus, DN400 flanged