

Dynasonics® UHC100

Ultrasonic heat meter / cooling energy meter



Every drop counts.

Efficient, effective and highly accurate energy measurements, mounted in any position.

The UHC100 series

The UHC100 series has been designed to measure heating and cooling energy. It can be used with heating/cooling media (water or glycol solution) in centrally heated or cooled spaces such as residential houses or buildings.

The UHC100 series has a flexible meter configuration with different parameters and features. It offers dual communication module options (RF/M-Bus, M-Bus/M-Bus, LoRa/M-Bus, etc.) and is suited for nominal flows from 0,6 to 60 m³/h.

The data registration parameter values can be hourly, daily and monthly. The data can be registered in integrated energy, cooling energy, billing energy, volume of liquid and also maximum thermal power value for heating/cooling and also date. Additional data registrations are also available.

The pulse output value can be configured for energy or for water quantity. The user can choose between battery or external supply. The battery life-time is 15 +1 years.

- Ultrasonic technology
- High accuracy
- MID DN15 – DN100
- No straight section required for DN15 – DN50
- 0 °C up to +90 °C or 0 °C up to +130 °C
- Nominal pressure PN 16 / 25 bar
- No measurement of air
- IP 65/67/68 protection class
- Optional communication modules

Approvals:

- MID
- EN1434
- 2014/32/EC

Communication interface:

- W-Mbus 868 MHz
- M-Bus
- Modbus
- BACnet[®]
- MiniBus
- LoRa
- Dual communication module options (board mounted) and one slot for plug-in module



UHC100 heat/cooling energy meter / Technical data

Flow rate sensor	q_p [m ³ /h] R q_p/q_i [m ³ /h] Resolution of flow rate indicators	0,6 / 1,0 / 1,5 / 2,5 / 3,5 / 6,0 / 10 / 15 / 25 / 40 / 60 100/250 00000.001 m ³
Technical data	LCD display	9-digit
	Protection class [IP]	IP65/67/68
	Ambient class	Class B / EN 14 154
	Ambient temperature	+5 °C to +65 °C
	Units (selectable by the user when installing)	kWh; MWh; GJ; Gcal; m ³
	Resolution of energy indicators (selectable by the user when installing)	0000000.1 kWh, 00000001 kWh, 00000.001 MWh (Gcal oder GJ) 000000.01 MWh (Gcal oder GJ)
	Installation position	All installation positions (vertical, horizontal, rising pipe, down pipe)
	Nominal pressure [bar]	PN16/25 bar
	Pressure loss	0.63 / (0.25) bar
	Battery lifetime	15+1 years
	Flow sensor cable length	1,2 m (2,5 m or 5 m – special order)
	Temperature sensor Pt500, two wire connection, cable length	Up to 5 m.
	Temperature measurement range	0 °C – 90 °C, 0 °C – 130 °C
Mounting of calculator	Mounting on standard DIN-rail or on the wall	
Number of configurable pulse inputs/outputs	2 or no (to be specified when ordering), OB – in the operating mode; OD – in the test mode	

Pulse value in the operating mode:

- When the output is configured for energy, the pulse value can be selected from the list below (depending on the rated flow q_p and energy measurement units):

Permanent flow rate, q_p , m ³ /h	0,6 – 6	10 – 60
Energy pulse value, when units are "kWh" oder "MWh"	0,001; 0,01; 0,1; 1 MWh/pulse	0,01; 0,1; 1 MWh/pulse
Energy pulse value, when units are "GJ"	0,001; 0,01; 0,1; 1 GJ/pulse	0,01; 0,1; 1 GJ/pulse
Energy pulse value, when units are "Gcal"	0,001; 0,01; 0,1; 1 Gcal/pulse	0,01; 0,1; 1 Gcal/ pulse

- When the output is configured for water quantity, the pulse value can be selected from the list below (depending on the permanent flow q_p):

Permanent flow rate, q_p , m ³ /h	0,6 – 6	10 – 60
Water volume pulse value, m ³ /Impuls	0,001; 0,01; 0,1; 1	0,01, 0,1, 1



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