

Product Description

The NCMW20 is an ultrasonic water meter designed to measure consumption of hot and cold water. The meter is applicable for residential and commercial use alike and comes with standard M-Bus connectivity by default. Selectable communication options include MBus (default), WM-Bus, and LoRaIoT.

The DN20 sized meter has threaded end connections of G1" by default. Flanged connections of DN20 are available as optional. The meter is also available for various flow rates and other pipe sizes between DN15DN100.

The meter comprises ultrasonic flow sensor and M-Bus connectivity unit and is MID type approved and complies to EN 14154

Application

The NCMW20 range of water meters finds application within district cooling systems, homes, offices as well as industry application.

Approvals

MID type approval. Compliance to the standard EN1434.

Interfaces

- ▶ M-Bus / WM-Bus / Pulse Output / IoT (LoRa) / Optical.
- ▶ The optical interface is integrated into the front panel of the calculator & is designed for data reading via M-Bus protocol & parameterization of the meter.

Features and Benefits

- ▶ Ultrasonic Water Meter
- ▶ Highly Accurate Water Flow Measurement
- ▶ M-Bus connectivity
- ▶ MID approved
- ▶ Mounting in any installation position
- ▶ Available in various flow rates and pipe sizes

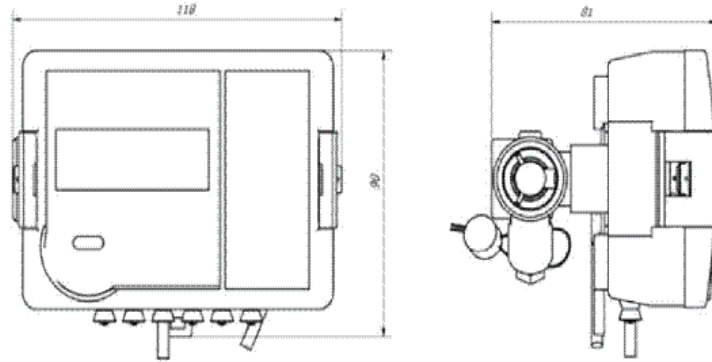
Technical Information

Approval	MID type approved. Compliance with EN14154
Q3 (nominal flow)	1.6 / 2.5 / 4.0 / 6.3 m³/h
Dynamic Range R	250/400
DN	20
Joining the pipeline	G1" (thread), DN20 (flanged)
Mounting Length	130/190 mm (see table)
Flow Sensor	Ultrasonic
Medium Temperature	0.1°C to 90°C
Nominal Pressure	PN16/25 Bar
Pressure Loss	0.63 / 0.25 Bar
Protection Class	IP65 (calculator), IP67 (flow sensor)
Environment Protection	Class B / EN 14154
Ambient Temperature	0°C to 65°C
Power Supply	Battery / External
Battery Lifetime	> 12 years
Calculator Dimensions	117mm x 44mm x 89.5mm
Mounting	In any installation position
Calculator Mounting	On meter body or separately on standard DIN rail

Nominal Flow Parameters

Meter Type	Flow Rate Q3, m3/h	Overall length (mm)	Joining the pipeline
NCMW20 - 1.6	1.6	190	G1"
NCMW20FL - 1.6	1.6	190	DN20FL
NCMW20 - 2.5	2.5	130 / 190	G1"
NCMW20FL - 2.5	2.5	190	DN20FL
NCMW20 - 4.0	4.0	130 / 190	G1"
NCMW20FL - 4.0	4.0	190	DN20FL
NCMW20 - 6.3	6.3	190	G1"
NCMW20FL - 6.3	6.3	190	DN20FL

Dimensions



	15	20	25	40	50	65	80	100
L (mm)	110	130 / 190	260	300	270	300	300	360
H (mm)	81	85	123 / 134	141 / 163	167	190	200	235
G (Thread) corr. DN (Flange)	G ³ / ₄	G1" DN20	G1 ¹ / ₄ " DN25	G2" DN40	DN50	DN65	DN80	DN100

Power Supply

Power Supply (one of the following - depending on meter configuration)

- ▶ AA battery 3.6V 2.5Ah (Li-SOC12) battery, operation time at least 11 years
- ▶ 12 to 42 V DC or 12 to 36V 50/60 Hz AC external power supply, used current 10mA and back up battery AA 3.6V (Li SOC12), operation time at least 11 years (without reading data through digital interfaces)
- ▶ 230V (+10% - 30%) 50/60 Hz C power supply, current consumption is not more than 10mA, the meter should be equipped with external power supply unit and an external transformer

Data Logger - History Values

- ▶ Every hour, day and month values of the measured parameters are stored in internal memory
- ▶ All data from archive can be read by means of the remote reading
- ▶ In addition, the data logger records of monthly parameters can be seen on the display

Wired M-Bus Interface

- ▶ The internal M-Bus module provides data reading possibility via M-Bus protocol

LCD Indicator

- ▶ The device is equipped with 8 digit 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



Ordering Codes

Water Meters - M-Bus

NCMW20 - 1.6	Ultrasonic water meter M-Bus, 1.6 m ³ /h, DN20, G1, 190mm
NCMW 20FL - 1.6	Ultrasonic water meter M-Bus, 1.6 m ³ /h, DN20 flanged, 190mm
NCMW20 - 2.5	Ultrasonic water meter M-Bus, 2.5 m ³ /h, DN20, G1, 190mm
NCMW 20FL - 2.5	Ultrasonic water meter M-Bus, 2.5 m ³ /h, DN20 flanged, 190mm
NCMW20-2.5 - 130	Ultrasonic water meter M-Bus, 2.5 m ³ /h, DN20, G1, 130mm
NCMW20 - 4.0	Ultrasonic water meter M-Bus, 4.0 m ³ /h, DN20, G1, 190mm
NCMW20-4.0 - 130	Ultrasonic water meter M-Bus, 4.0 m ³ /h, DN20, G1, 130mm
NCMW 20FL - 4.0	Ultrasonic water meter M-Bus, 4.0 m ³ /h, DN20 flanged, 190mm
NCMW20 - 6.3	Ultrasonic water meter M-Bus, 6.3 m ³ /h, DN20, G1, 190mm
NCMW 20FL-6.3	Ultrasonic water meter M-Bus, 6.3 m ³ /h, DN20 flanged, 190mm

Water Meters (Ultrasonic) WM-Bus (Wireless)

NCMW 20W-1.6	Ultrasonic water meter WM-Bus, 1.6 m ³ /h, DN20, G1, 190mm
NCMW 20W-2.5	Ultrasonic water meter WM-Bus, 2.5 m ³ /h, DN20, G1, 190mm
NCMW 20W-2.5-130	Ultrasonic water meter WM-Bus, 2.5 m ³ /h, DN20, G1, 130mm
NCMW 20W-4.0	Ultrasonic water meter WM-Bus, 4.0 m ³ /h, DN20, G1, 190mm
NCMW 20W-4.0-130	Ultrasonic water meter WM-Bus, 4.0 m ³ /h, DN20, G1, 130mm
NCMW 20W-6.3	Ultrasonic water meter WM-Bus, 6.3 m ³ /h, DN20, G1, 190mm
NCMW 20WFL-1.6	Ultrasonic water meter WM-Bus, 1.6 m ³ /h, DN20 flanged, 190mm
NCMW 20WFL-2.5	Ultrasonic water meter WM-Bus, 2.5 m ³ /h, DN20 flanged, 190mm
NCMW 20WFL-4.0	Ultrasonic water meter WM-Bus, 4.0 m ³ /h, DN20 flanged, 190mm
NCMW 20WFL-6.3	Ultrasonic water meter WM-Bus, 6.3 m ³ /h, DN20 flanged, 190mm

Water Meters (Ultrasonic) LoRa

NCMW 20L-1.6	Ultrasonic water meter LoRa, 1.6 m ³ /h, DN20, G1, 190mm
NCMW 20L-2.5	Ultrasonic water meter LoRa, 2.5 m ³ /h, DN20, G1, 190mm
NCMW 20L-2.5-130	Ultrasonic water meter LoRa, 2.5 m ³ /h, DN20, G1, 130mm
NCMW 20L-4.0	Ultrasonic water meter LoRa, 4.0 m ³ /h, DN20, G1, 190mm
NCMW 20L-4.0-130	Ultrasonic water meter LoRa, 4.0 m ³ /h, DN20, G1, 130mm
NCMW 20L-6.3	Ultrasonic water meter LoRa, 6.3 m ³ /h, DN20, G1, 190mm
NCMW 20LFL-1.6	Ultrasonic water meter LoRa, 1.6 m ³ /h, DN20 flanged, 190mm
NCMW 20LFL-2.5	Ultrasonic water meter LoRa, 2.5 m ³ /h, DN20 flanged, 190mm
NCMW 20LFL-4.0	Ultrasonic water meter LoRa, 4.0 m ³ /h, DN20 flanged, 190mm
NCMW 20LFL-6.3	Ultrasonic water meter LoRa, 6.3 m ³ /h, DN20 flanged, 190mm