QALCOSONIC

W1

SMART ULTRASONIC WATER METER

APPLICATION

Ultrasonic water meter **QALCOSONIC W1*** is designed for accurate measurement of cold and hot water consumption in households, apartment buildings, and commercial premises.

- Static method of water flow measurement, no moving parts
- High accuracy calculation of water consumption
- Eliminates measuring deviations caused by sand, suspended particles or air pockets
- Long-term measurement stability and reliability
- 9 digits, multi-line LCD. Total volume and instantaneous flow rate indication
- Sensitive and accurate in low flows, down to 1 l/h
- Ready for AMR with NFC, wM-Bus, LoRa technologies

** - Qalcosonic W1 modification for Belgium, Netherlands, France, Germany, Denmark, Norway, Finland, Poland.*

AMR READY

- wM-Bus 868 MHz OMS T1
- LoRaWAN (EU863-870)
- NFC

PARAMETERISATION OF THE METER

NFC and optical interfaces are integrated into the top panel of the meter. They can be used for data reading and parameterisation of the meter.

TECHNICAL FEATURES

- Temperature class T30, T50, T30/90, T90
- Nominal flow 1.6 / 2.5 / 4.0 m^3/h
- Wide measurement range Q3/Q1 = R 250/400/800 (optional)
- No straight sections required
- Installation in any position
- No measurement of air
- Environment class E2/M1
- Protection class IP68
- Nominal pressure PN16
- Internal datalogger
- Maintenance free device, battery lifetime > 16 years
- Bi-directional flow measurements
- Flow direction indication
- Meter parameterisation and archive reading via NFC or optical interface
- Durable composite body
- Measurement units: m^3-m^3/h

AMR INTERFACES, OPTIONAL

LoRaWAN CERTIFIED™ M-Bus wireless

DATA REGISTRATION

- Total volume
- Forward volume
- Reverse volume
- Maximum flow rate value and date
- Minimum flow rate value and date
- Operating time without an error
- Operating time
- Error code

DATA LOGGER - HISTORY VALUES

- Hourly, daily, monthly values of the measured parameters are stored in internal memory

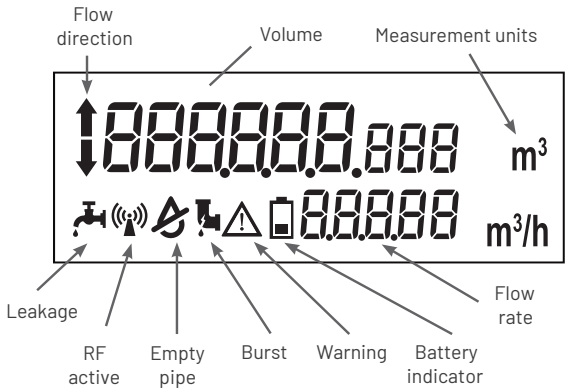
RADIO INTERFACE

Integrated radio communication allows data reading via wM-Bus telegram: 868MHz OMS T1 mode, LoRaWAN.

LCD INDICATIONS AND ALARMS

MULTIPLE ALARMS AND EVENTS, INCLUDING:

- Flow direction indication
- Battery level indication
- Leakage
- Burst
- Backflow
- Empty pipe
- Radio communication
- Warning indication
- Low-temperature warning



TECHNICAL DATA:

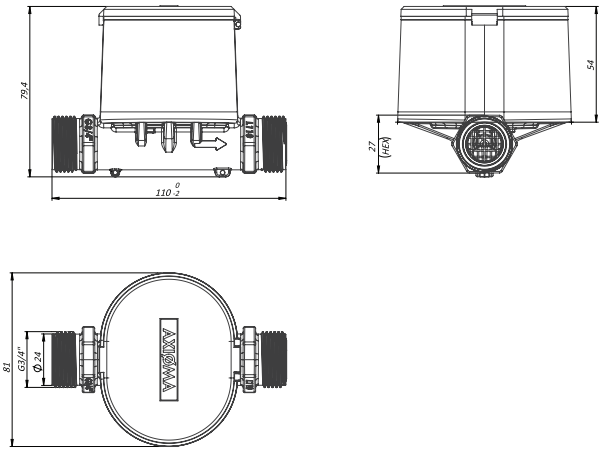
Flow sensor	Q3 [m³/h]	1.6 / 2.5 / 4.0
	R Q3 / Q1	80 / 160 / 250 / 315 / 400 / 800
	Water temperature	0,1 – 90°C
	LCD Display	9-digits
Flow measurement	Protection class [IP]	IP68
	Ambient class	Class C / EN 14 154
	Ambient temperature	-15°C ... +70°C
	Installation position	All installation positions (vertical, horizontal, rising pipe, down pipe)
	Nominal pressure [bar]	PN16 bar
	Pressure loss	0.16 / 0.25
	Battery lifetime	16 years LoRa/wM-Bus (depending on communication settings)
	Units	m³/h - m³

Nominal flow rate Q3, m³/h	**1,6**					**2,5**									**4,0**				
Overall length, mm	110					110					105, 130, 165, 190				105, 130, 165, 190				
Nominal diameter	**DN15**					**DN15**					**DN20**				**DN20**				
Connection	G ¾"					G ¾"					G 1"				G 1"				
Dynamic range R, Q3/Q1	80	160	250	315	400	80	160	250	400	800	80	160	250	400	80	160	250	400	800
Minimum flow rate Q1, m³/h	0,020	0,010	0,0064	0,005	0,004	0,031	0,0156	0,010	0,0062	0,0031	0,031	0,0156	0,010	0,0062	0,050	0,025	0,016	0,010	0,050
Transitional flow rate Q2, m³/h	0,032	0,016	0,010	0,008	0,0064	0,050	0,025	0,016	0,010	0,005	0,050	0,025	0,016	0,010	0,080	0,040	0,026	0,016	0,080
Starting flow rate, m³/h	0,001					0,001					0,001				0,002				
Maximum flow rate Q4, m³/h	2,0					3,125					3,125				5,0				
Pressure loss class Δp, bar x 100	Δp16					Δp25					Δp16				Δp25				

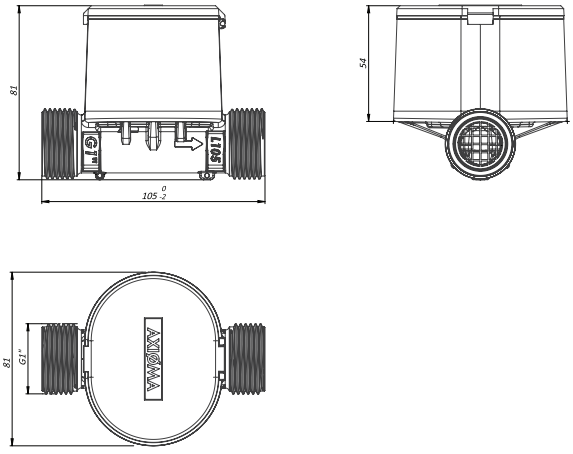
SIZE AND DIMENSIONS:

DN [mm]	15	20
L [mm]	110	105, 130, 165, 190
Connection	3/4“	1“

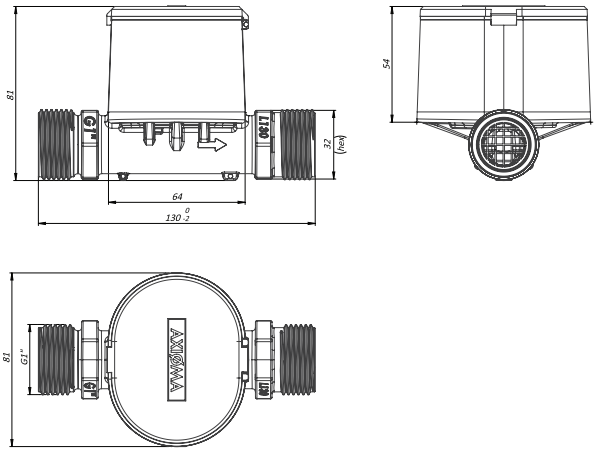
W1 DN 15 / L110



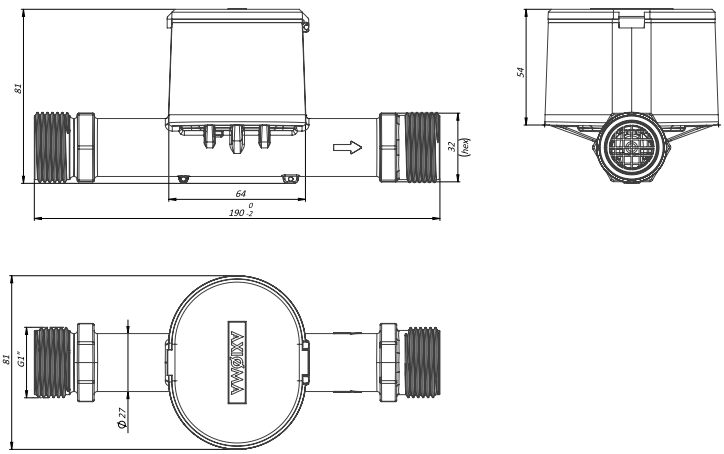
W1 DN 20 / L105



W1 DN 20 / L130



W1 DN 20 / L190



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