ULTRASONIC WATER METER

QALCOSONIC W1 Sizes DN25 – DN50

APPLICATION

Ultrasonic water meter QALCOSONIC W1 is designed for accurate measurement of cold and hot water consumption in households, apartment buildings and small 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 3 l/h
- Ready for AMR with NFC, w-MBus, LoRa and NB IoT technologies

APPROVALS

- MID 2014/32/EU approval in progress
- OIML R49 Compliant
- RoHS Directive Reach

TECHNICAL FEATURES

- Temperature class T30, T50, T30/90, T90
- Nominal flow 6.3 / 10 / 16 / 25 m^3/h
- Wide measurement range Q3/Q1 = R 250/400/800/1000 (optional)
- No straight sections required
- Installation in any position
- No measurement of air
- Environment class E2/M1
- Protection class IP68
- Nominal pressure PN16 (PN25 for flange version)
- Internal datalogger
- Maintenance free device, battery lifetime > 16 years
- Bi-directional flow measurements
- Flow direction indication
- Meter parametrisation and archive reading via NFC or optical interface
- Durable composite body
- Measurement units: m^3-m^3/h

AMR READY

- W-MBus 433 or 868 MHz OMS T1; 868 MHz S1
- LoRa WAN (EU868, AS923, AU915 channel plans)
- NB IoT
- NFC

PARAMETRISATION OF THE METER

NFC and optical interface is integrated into the top front panel of calculator. It is designed for data reading via M-bus protocol and parameterisation of the meter

RADIO INTERFACE

Integrated radio communication allows data reading via WMBUS telegram: 433 MHz or 868 MHz, OMS S1, T1 mode, LoRa WAN or NB IoT.

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
- Water temperature indication

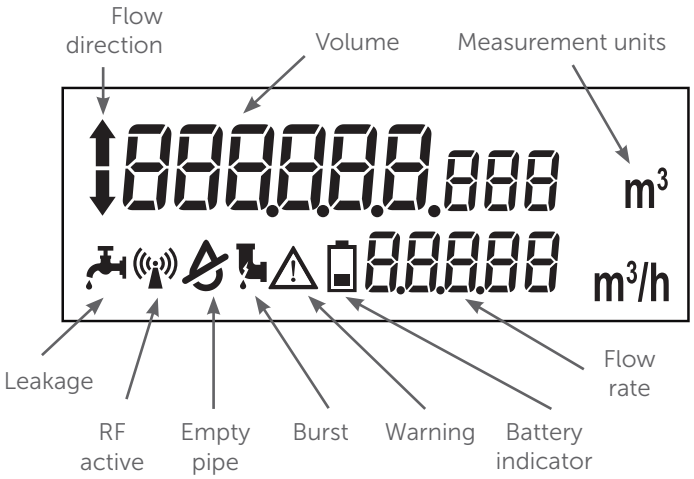
DATA LOGGER – HISTORICAL VALUES

- Hourly, daily, monthly values of the measured parameters are stored in internal memory
- All data from archive can be read by means of the remote reading

LCD INDICATIONS AND ALARM

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]	6.3 / 10 / 16 / 25
	R Q3 / Q1	250 / 400 / 800 / 1000 (optional)
	Medium Temp. (operating 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	0.25 / 0.40
	Battery lifetime	>16 years
	Units	m³/h - l/h - m³

TECHNICAL DATA:

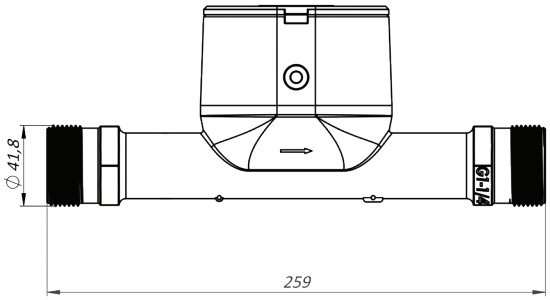
	Permanent Q^3, m^3/h	R Q3/ Q1	Maximum Q4, m^3/h	Minimum Q1, m^3/h	Transitional Q2, m^3/h	Starting flow m^3/h	Connections	Overall length, mm	*ΔP (bar x 100)*	Temperature class
AVAILABLE FROM Q4/2020	6.3	250	7,875	0.0252	0.040	0.003	G 1 ¼" (DN25)	260	*ΔP* 25	T30; T50; T30/90; T90
	6.3	400	7,875	0,016	0,026	0.003	G 1 ¼" (DN25)	260	*ΔP* 25	T30; T50; T30/90; T90
	6.3	800	7,875	0,008	0,013	0.003	G 1 ¼" (DN25)	260	*ΔP* 25	T30
	10	250	13	0.04	0.064	0.003	G 1 ¼" (DN25)	260	*ΔP* 63	T30; T50; T30/90; T90
	10	400	12,5	0,025	0,04	0.003	G 1 ¼" (DN25)	260	*ΔP* 63	T30; T50; T30/90; T90
	10	800	12,5	0,0125	0,02	0.003	G 1 ¼" (DN25)	260	*ΔP* 63	T30
	10	1000	13	0.01	0.016	0.003	G 1 ¼" (DN25)	260	*ΔP* 63	T30
	6.3	250	7,875	0.0252	0.040	0.005	G 1 ½" (DN32)	260	*ΔP* 25	T30; T50; T30/90; T90
	6.3	400	7,875	0,016	0,026	0.005	G 1 ½" (DN32)	260	*ΔP* 25	T30; T50; T30/90; T90
	10	400	12,5	0,025	0,04	0.005	G 1 ½" (DN32)	260	*ΔP* 40	T30; T50; T30/90; T90
	10	800	12,5	0,0125	0,02	0.005	G 1 ½" (DN32)	260	*ΔP* 40	T30
AVAILABLE FROM Q1/2021	10	250	12.5	0.04	0.064	0.01	G 2" (DN40)	300	*ΔP* 16	T30; T50; T30/90; T90
	10	400	12,5	0,025	0,04	0.01	G 2" (DN40)	300	*ΔP* 16	T30; T50; T30/90; T90
	16	250	20	0.064	0.102	0.01	G 2" (DN40)	300	*ΔP* 16	T30; T50; T30/90; T90
	16	400	20	0.04	0.064	0.01	G 2" (DN40)	300	*ΔP* 16	T30; T50; T30/90; T90
	16	800	20	0,02	0,05	0.01	G 2" (DN40)	300	*ΔP* 16	T30
	25	250	31	0.1	0.160	0.01	G 2" (DN40)	300	*ΔP* 25	T30; T50; T30/90; T90
	25	400	31	0.0625	0,05	0.01	G 2" (DN40)	300	*ΔP* 25	T30; T50; T30/90; T90
	25	800	31	0.03125	0.050	0.01	G 2" (DN40)	300	*ΔP* 25	T30
	40	250	50	0.16	0.256	0.01	G 2" (DN40)	300	*ΔP* 63	T30; T50; T30/90; T90
	40	400	50	0.1	0.160	0.01	G 2" (DN40)	300	*ΔP* 63	T30; T50; T30/90; T90
	40	800	50	0.05	0.080	0.01	G 2" (DN40)	300	*ΔP* 63	T30
	40	1000	50	0.04	0.064	0.01	G 2" (DN40)	300	*ΔP* 63	T30
	16	250	20	0.064	0.102	0.016	DN50	200	*ΔP* 25	T30; T50; T30/90; T90
	25	250	31	0.1	0.160	0.016	DN50	200	*ΔP* 25	T30; T50; T30/90; T90
	25	400	31	0.0625	0.100	0.016	DN50	200	*ΔP* 25	T30; T50; T30/90; T90
	25	800	31	0.03125	0.050	0.016	DN50	200	*ΔP* 25	T30
	40	250	50	0.16	0.256	0.016	DN50	200	*ΔP* 40	T30; T50; T30/90; T90
	40	400	50	0.1	0.160	0.016	DN50	200	*ΔP* 40	T30; T50; T30/90; T90
	40	800	50	0.05	0.080	0.016	DN50	200	*ΔP* 40	T30
	40	1000	50	0.04	0.064	0.016	DN50	200	*ΔP* 40	T30
	16	250	20	0.064	0.102	0.016	G2½" (DN50)	300	*ΔP* 25	T30; T50; T30/90; T90
	25	250	31	0.1	0.160	0.016	G2½" (DN50)	300	*ΔP* 25	T30; T50; T30/90; T90
	25	400	31	0.0625	0.100	0.016	G2½" (DN50)	300	*ΔP* 25	T30; T50; T30/90; T90
	25	800	31	0.03125	0.050	0.016	G2½" (DN50)	300	*ΔP* 25	T30
	40	250	50	0.16	0.256	0.016	G2½" (DN50)	300	*ΔP* 40	T30; T50; T30/90; T90
	40	400	50	0.1	0.160	0.016	G2½" (DN50)	300	*ΔP* 40	T30; T50; T30/90; T90
	40	800	50	0.05	0.080	0.016	G2½" (DN50)	300	*ΔP* 40	T30
	40	1000	50	0.04	0.064	0.016	G2½" (DN50)	300	*ΔP* 40	T30

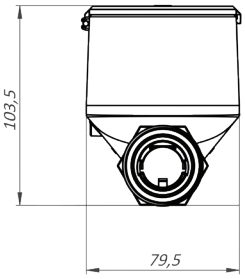
REMARK – technical data in the table above is preliminary, and can be changed without any notice

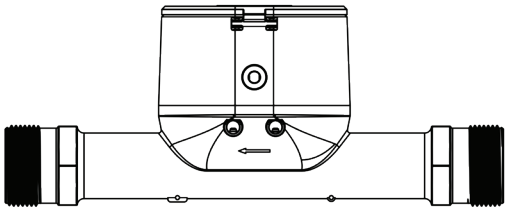
SIZE AND DIMENSIONS:

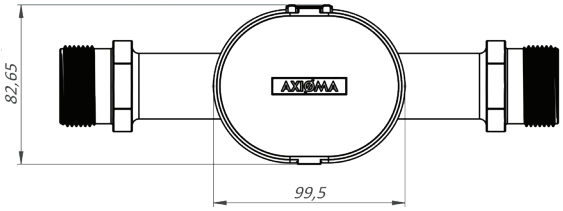
DN [mm]	25	32	40	50	50
L [mm]	260	260	300	200	300
Connection	G 1 ¼"	G 1 ½"	G 2	DN50 (flange)	G 2 ½"

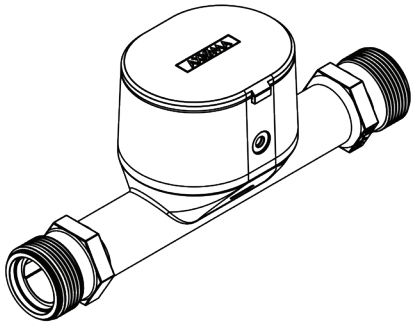
SIZE DN25



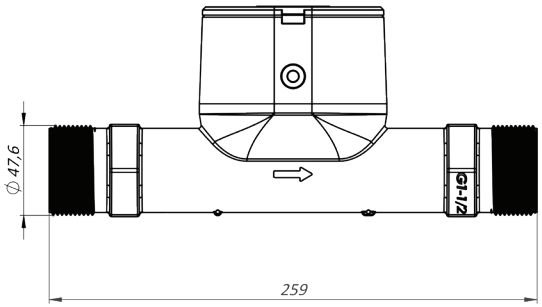


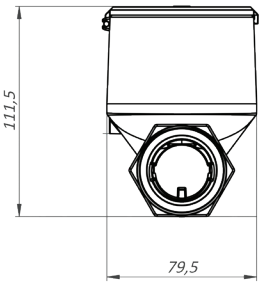


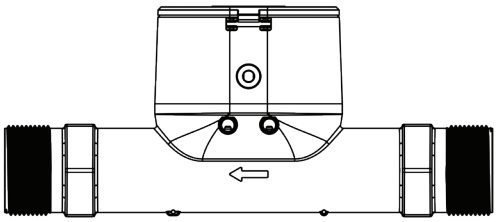


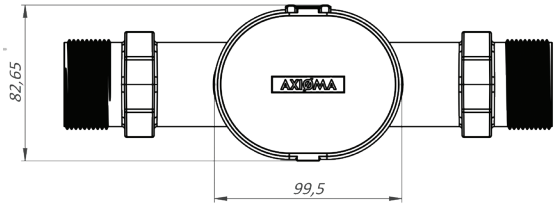


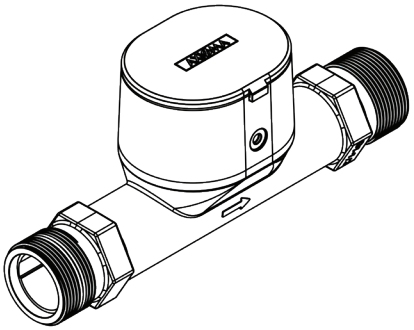
SIZE DN32











AXIOMA METERING UAB / Veterinarų str. 52 / Biruliškių k., Kauno r. LT-54469 / Lithuania / metering@axioma.eu / axiomametering.com