



ULTRASONIC WATER METER QALCOSONIC

W1

Sizes DN25 - DN50

AXIOMA
METERING

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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 3 l/h

AMR INTERFACES, OPTIONAL



TECHNICAL FEATURES

- Temperature class T30, T50, T30/90, T90
- Nominal flow 6.3 / 10 / 16 / 25 m³/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 (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

APPROVALS

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

AMR READY

- wMBus 433 or 868 MHz OMS T1; 868 MHz S1
- LoRa WAN (EU868, AS923, AU915, US915 channel plans)
- NB IoT

PARAMETERISATION OF THE METER

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

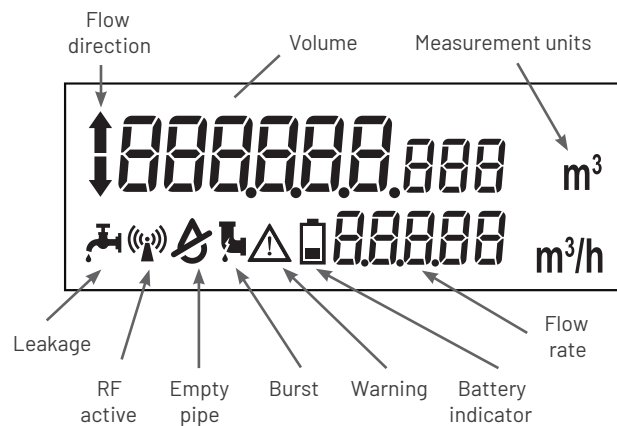
DATA LOGGER - HISTORY VALUES

- 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 [m ³ /h]	6.3 / 10 / 16 / 25
	R Q3 / Q1	250 / 400 / 800
	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	0.16 / 0.25 / 0.40 / 0.63
	Battery lifetime	>16 years, depending on communication options
Units	m ³ /h - m ³	

TECHNICAL DATA:

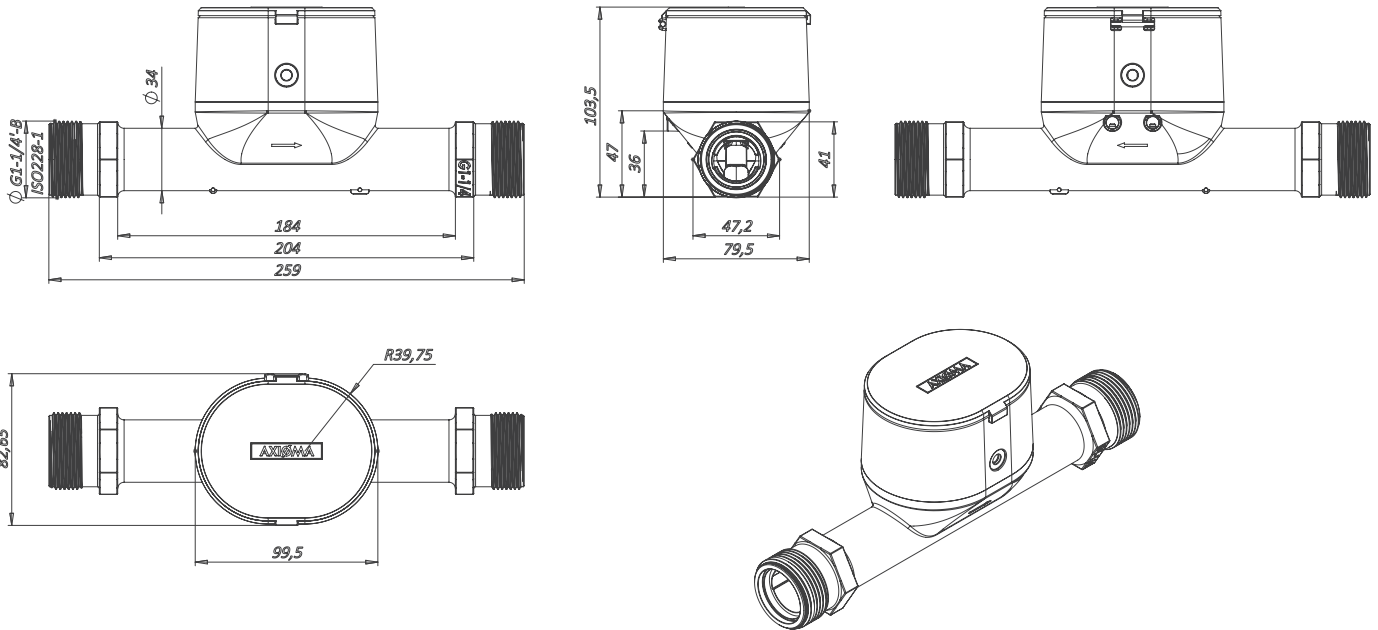
	Permanent Q ³ ,m ³ /h	RQ3/ Q1	Maximum Q4,m ³ /h	Minimum Q1,m ³ /h	Transitional Q2,m ³ /h	Starting flow m ³ /h	Connections	Overall length, mm	ΔP (bar x 100)	Temperature class
AVAILABLE FROM Q4/2020	6.3	250	7,875	0.0252	0.040	0.003	G 1¼" (DN25)	260	ΔP 25	T30; T50; T30/90; T90
	6.3	400	7,875	0,016	0,026	0.003	G 1¼" (DN25)	260	ΔP 25	T30; T50; T30/90; T90
	6.3	800	7,875	0,008	0,013	0.003	G 1¼" (DN25)	260	ΔP 25	T30
	10	250	12,5	0.04	0.064	0.003	G 1¼" (DN25)	260	ΔP 63	T30; T50; T30/90; T90
	10	400	12,5	0,025	0,04	0.003	G 1¼" (DN25)	260	ΔP 63	T30; T50; T30/90; T90
	10	800	12,5	0,0125	0,02	0.003	G 1¼" (DN25)	260	ΔP 63	T30
	6.3	250	7,875	0.0252	0.040	0.005	G 1½" (DN32)	260	ΔP 16	T30; T50; T30/90; T90
	6.3	400	7,875	0,016	0,026	0.005	G 1½" (DN32)	260	ΔP 16	T30; T50; T30/90; T90
	10	400	12,5	0,025	0,04	0.005	G 1½" (DN32)	260	ΔP 25	T30; T50; T30/90; T90
	10	800	12,5	0,0125	0,02	0.005	G 1½" (DN32)	260	ΔP 25	T30
AVAILABLE FROM Q2/2021	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
	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
	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	

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 1/4"	G 1 1/2"	G 2	DN50 (flange)	G 2 1/2"

SIZE DN25



SIZE DN32

