



Qalcosonic W1 B design DN15-20 BRASS

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 and NB-IoT technologies.

AMR Ready

- wM-Bus 868 MHz OMS T1
- LoRaWAN (EU863-870, IN865-867)
- NB-IoT (CoAP)
- 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.

Approvals

- MID (2014/32/EU)
- LoRa WAN compliance certificate
- OMS compliance certificate
- WRAS (UK)
- ACS (France)
- ICIM (Italy)
- KIWA (the Netherlands)
- OIML

Technical features

Temperature class
T30, T50, T70, T30/90, T90

Nominal flow 1.6 / 2.5 / 4.0 m³/h

Wide measurement range
 $Q_3/Q_1 = 160 / 250 / 400 / 500 / 800$
(optional)

No straight pipe sections required
before or after the meter

Installation in any position

No measurement of air

Electromagnetic environment class E2
Mechanical environment class M1

Protection class IP68

Nominal pressure PN16

Internal datalogger

Maintenance free device, battery
lifetime up to 16 years*

Bi-directional flow measurements

Flow direction indication

Meter parameterisation and archive
reading via NFC or optical interface

Brass body

* - depending on communication settings.

Data logger – history values

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

AMR interfaces, optional



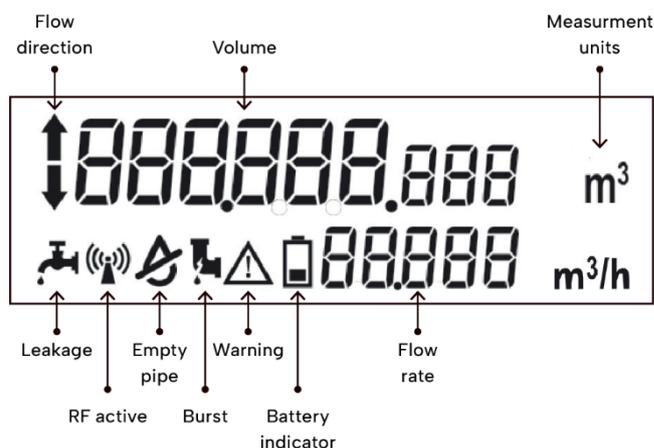
Radio interface

Integrated radio communication allows data reading via wM-Bus telegram (868MHz OMS T1 mode), LoRaWAN or NB-IoT.

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	160 / 250 / 400 / 500 / 800
	Water temperature	0,1 – 90°C
	LCD Display	9-digits
Flow measurement	Protection class [IP]	IP68
	Environmental class	B (Indoors) / O (Outdoors) / ISO 4064
	Ambient temperature	-15°C ... +70°C
	Installation position	All installation positions (vertically, horizontally, diagonally)
	Nominal pressure [bar]	PNI6 bar
	Pressure loss	0.16 / 0.25
	Battery lifetime	up to 16 years LoRa/wM-Bus version (depending on communication settings)
	Units	m³ – m³/h

Nominal flow rate	1,6	2,5	2,5	4,0
Overall length, mm	110, 165	110, 165	105, 110, 130, 190	105, 110, 130, 190
Nominal diameter	DN15	DN15	DN20	DN20
Connection	G ¾"	G ¾"	G 1"	G 1"
Dynamic range R, Q3/Q1	160 / 250 / 400	160 / 250 / 400 / 500 / 800	160 / 250 / 400	160 / 250 / 400 / 500 / 800
Minimum flow rate Q ₁ , m³/h	0,010 / 0,0064 / 0,004	/ 0,0156 / 0,010 / 0,0062 / 0,005 / 0,0031	/ 0,0156 / 0,010 / 0,0062	/ 0,025 / 0,016 / 0,010 / 0,008 / 0,005
Transitional flow rate Q ₂ , m³/h	0,016 / 0,010 / 0,0064	0,025 / 0,016 / 0,010 / 0,008 / 0,005	0,025 / 0,016 / 0,010	0,040 / 0,026 / 0,016 / 0,0128 / 0,008
Starting flow rate, m³/h	0,001	0,001	0,001	0,002
Maximum flow rate Q ₄ , m³/h	2,0	3,125	3,125	5,0
Pressure loss class Δp, bar x 100*	Δp16	Δp25	Δp16	Δp25

* - for direct flow, without optional strainer

Size & dimensions:

DN15 / L [mm]: 110, 165
DN15 / connection: 3/4"

DN20 / L [mm]: 105, 110, 130, 190
DN20 / connection: 1"