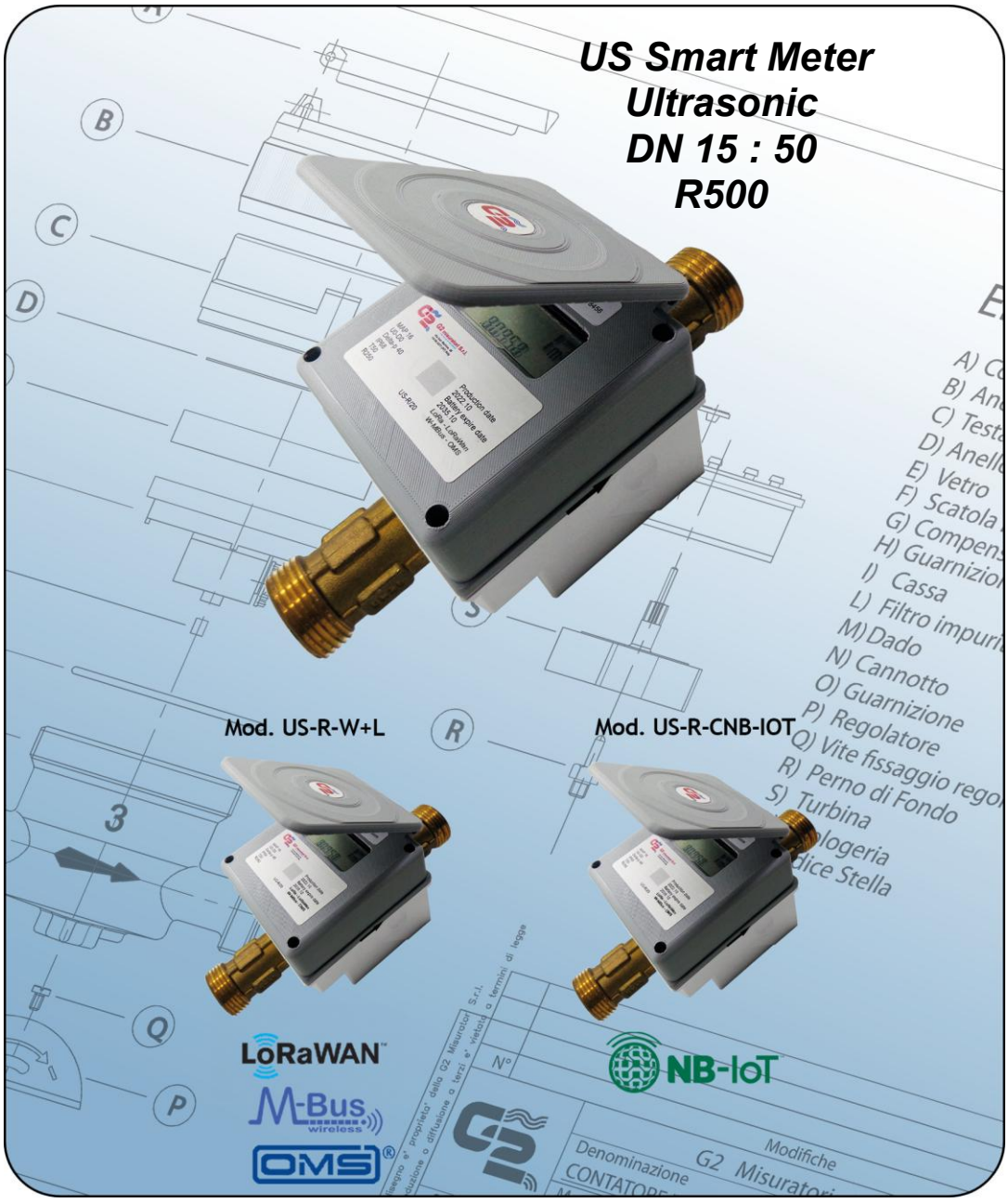
G2 misuratori

THE VALUE OF METERING

CE MID

Made in ITALY

SMART METERS



- Ultrasonic meter suitable for domestic and commercial outdoor applications, featuring static measurement technology with no moving parts
- Model US-R-W+L sizes from DN 15 to DN 50, temperature class T30/T50, measuring range in all positions R500 – Protection rating IP68: resin-coated, integrated wireless communication with **LoRaWAN/ OMS W-Mbus protocols** with **automatic switch**
- Model US-R-CNB-IOT with sizes from DN 15 to DN 50, temperature class T30/T50, measuring range in all positions R500 – IP68 protection rating: resin-coated, integrated **NBIoT** wireless communication **with MQTT* protocol**
- Bidirectional measurement
- Large **LCD** display showing total volume, instantaneous flow rate, battery indicator, alarms, flow direction, water temperature and display test
- Display options for the measured volume: net, normal flow only, alternating normal/reverse
- Battery life >13 years, under normal conditions of use, depending on the radio protocol
- Data logger function with optional NFC module
- Local communication: optical port
- Durable brass body, threaded connections
- U0-D0: No straight pipe runs are required upstream or downstream of the meter
- All models are certified for use with drinking water in accordance with Ministerial Decree **174 of 6 April 2004**
- All models are **MID**-approved in accordance with the current Directive (Module B+D), in compliance with **OIML R49** and **ISO 4064** standards
- Available in a LoRaWAN-only or W-Mbus OMS-only version

SMART METERS

Technical specifications – DN in mm	15	20	25	32	40	50
Threads	G ¾"	G1"	G 1" ¼	G 1" 1/2	G 2"	G 2.1/2"
Permanent flow rate Q_3 (m^3/h)	2,5	4,0	6,3	10	16	25
Overload capacity Q_4 (m^3/h)	3,125	5,0	7,875	12,5	20	31,25
Transition flow rate Q_2 [MPE ±2%] (m^3/h)	0,008	0,0128	0,02016	0,032	0,0512	0,08
Minimum flow rate Q_1 [MPE ±5%] (m^3/h)	0,005	0,008	0,0126	0,02	0,032	0,05
Electromagnetic Class	E1					
Accuracy class	II					
Operating environmental conditions	-25 °C … +55 °C					
Measuring range R *	500	500	500	500	500	500
Starting flow (m^3/h)	0,002	0,004	0,005	0,009	0,011	0,011
Maximum permissible operating pressure MAP (bar)	16	16	16	16	16	16
Pressure drop ΔP (bar)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Maximum reading for normal flow (m^3)	99999.99999	99999.99999	99999.99999	99999.99999	99999.99999	99999.99999
Smallest unit of measurement (l)	1	1	1	1	1	1
L (mm) **	110	190	260	260	300	300 Threaded/200 flanged
L1 (mm)	97	97	97	97	97	97
L2 (mm)	204	294	380	380	428	428
H) (mm)	91	91	91	128	139	139
H1 (mm)	31	28	25	29	36	36
W (mm)	90	90	90	90	90	90

* Other R models available on

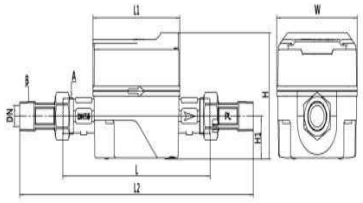
** Other lengths available on request

*** **Models available with a pulse emitter for connection to a separate radio module, on request**

Models:
US-AI-R-W+L
US-AI-R-CNB-IOT
DN 15: 20
R800
with a stainless steel measuring tube

display

Overall dimensions



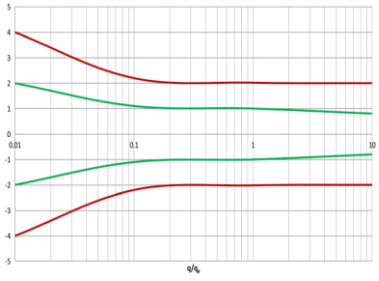
Technical specifications of the LoRaWAN protocol

	Fixed network
Network type	Frequency: 868 MHz, LoRaWAN certified protocol (915 MHz frequency on request)
Data transmitted	Sensor ID, consumption data, hardware status, battery level, alarms: tampering (removal), reverse flow, low battery, leaks, on-site temperature, on request
Edit configuration data	Possible from remote or via a radio terminal
Flexibility	On request the system automatically switches between the protocols LoRaWAN and W-Mbus OMS
Activation	OTAA-ABP
Transmission interval	1 daily reading and 2 daily history reports
Transmission distance	Up to 14 km in ideal conditions

Technical specifications of the OMS Wireless-Mbus protocol

	Walk-by/Drive-by
Network type	Frequency 868 MHz, W-MBus compliant with OMS
Data transmitted	Sensor ID, consumption data, hardware status, battery level, alarms: tampering (removal), reverse flow, low battery, leaks, on-site temperature, on request
Edit configuration data	Possible via radio terminal
Transmission distance	Up to 500 metres in ideal conditions

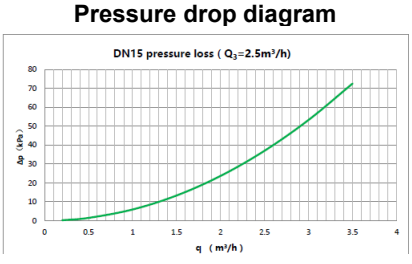
Typical error curve



Technical specifications for NB-IoT transmission

Transmission	Two-way communication over a fixed network using the NB-IoT cellular standard
Transmission interval	Each 3 days (customisable)
Communication protocol	MQTT
Edit configuration data	Available via remote access and/or local NFC
Data transmitted	Sensor ID, consumption data, hardware status, alarms,
Alarms transmitted	Mechanical tampering (removal), reverse flow, low battery, etc..
Communication interface	NFC for installation, configuration and data recovery
Data-logger	via NFC, with data recovery with mobile App

Pressure drop diagram



The Company reserves the right to make changes to technical specifications and product illustrations – 04/26

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Made in ITALY

ISO 9001 - ISO 14001 - ISO 45001
UNI/PdR 125:2022

AQUA European Association of Smart Meter Manufacturers