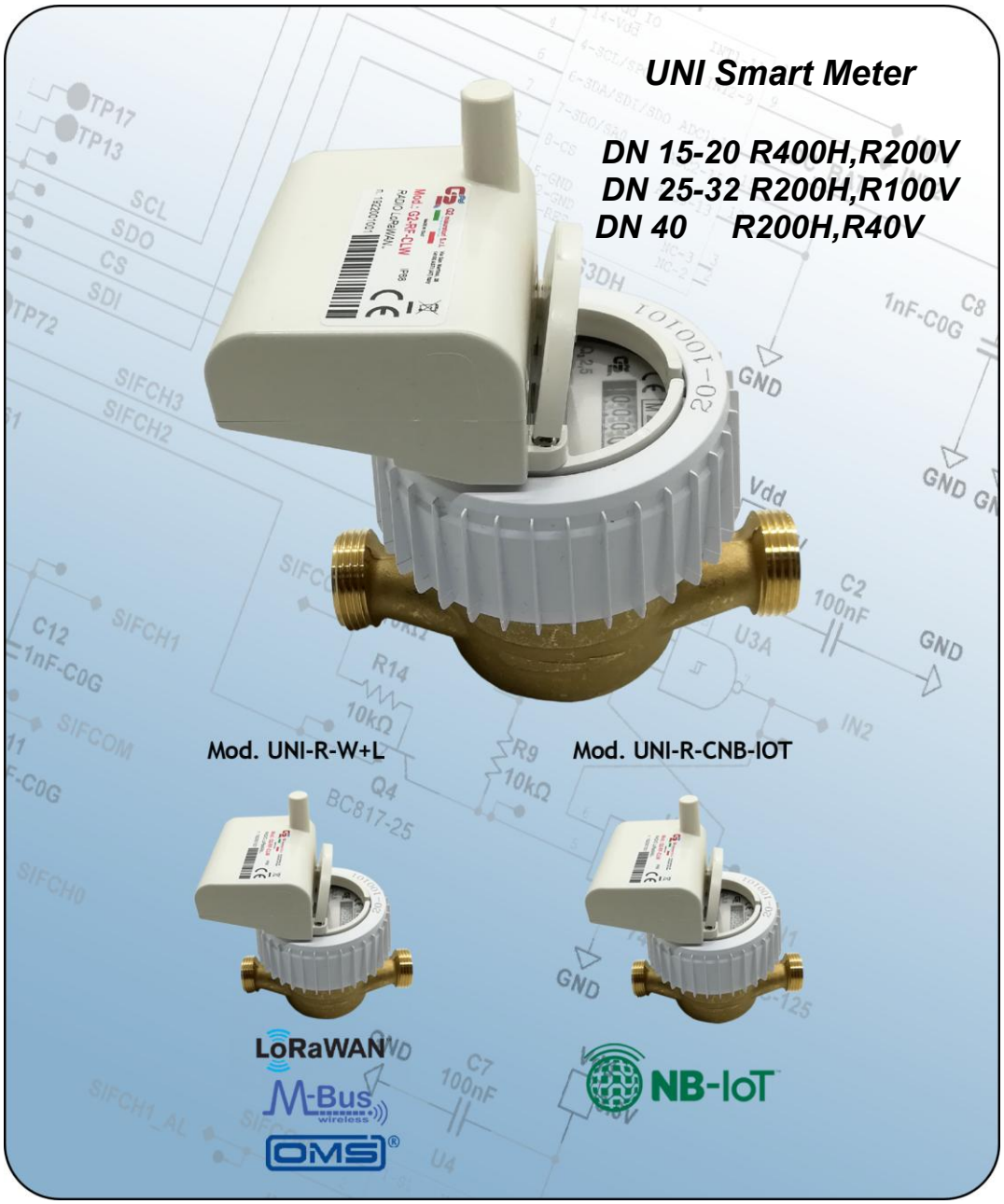
G2 misuratori

THE VALUE OF METERING

CE MID

Made in ITALY

SMART METERS



- ❑ Direct-reading smart meters with radio data transmission**:**

  - Meter with radio module, model **UNI-R-W+L**, featuring **the LoRaWAN** protocol **for fixed networks** and the **OMS W-Mbus** protocol **for walk-by/drive-by**: the system **automatically** switches between the fixed-network protocol and the walk-by/drive-by protocol
  - Meter with radio module, model **UNI-R-CNB-IOT**, with **MQTT*** protocol

- ❑ Single-jet meter with fully liquid filled sealed counter type, featuring mechanical transmission, available in DN 15–20 **R400H,R200V**, DN 25–32 **R200H,R100V**, and DN 40 **R200H,R40V**, UO-D0, T50
- ❑ Inductive transmission between the mechanical and electronic components. **The radio module can be replaced**
- ❑ All models are **MID**-approved in accordance with the current Directive
- ❑ All models are certified for use with drinking water in accordance with Ministerial Decree **174 of 6 April 2004**
- ❑ Transmitted consumption data, net of any reverse flows
- ❑ Multi-layered cryptographic data security
- ❑ Available in a LoRaWAN-only or W-Mbus OMS-only version

SMART METERS

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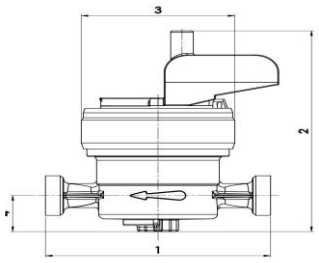
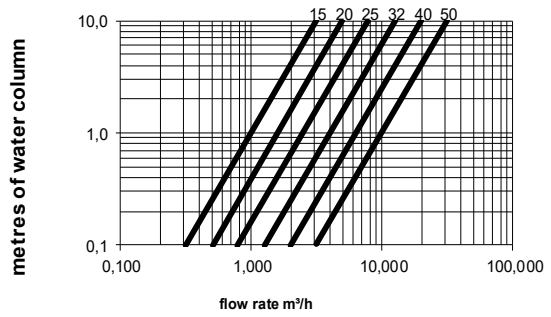
Technical specifications of the mechanical part of the meter DN in mm - inches	*15 - 1/2”*	*20 - 3/4”*	*25 - 1”*	*32 - 1.1/4”*	*40 - 1.1/2”*
Permanent flow rate Q_3 (m^3/h)	***2,5***	***4,0***	***6,3***	***10***	***16***
Overload capacity Q_4 (m^3/h)	*3,125*	*5,0*	*7,875*	*12,5*	*20*
Transition flow rate Q2 with measuring range R200H [MPE ±2%] (l/h)	20	32	*50,4*	*80*	*128*
Minimum flow rate Q1 with measuring range R200H [MPE ±5%] (l/h)	12,5	20	*31,5*	*50*	*80*
Transition flow rate Q2 with measurement range R125V [MPE ±2%] (l/h)	32	51,2	-	-	-
Minimum flow rate Q1 with measuring range R125V [MPE ±5%] (l/h)	20	32	-	-	-
Transition flow rate Q2 with measuring range R100V [MPE ±2%] (l/h)	-	-	*100,8*	*160*	
Minimum flow rate Q1 with measuring range R100V [MPE ±5%] (l/h)	-	-	*63*	*100*	
Transition flow rate Q2 with measuring range R40V [MPE ±2%] (l/h)					*640*
Minimum flow rate Q1 with measuring range R40V [MPE ±5%] (l/h)					*400*
Starting flow (l/h)	*1,5*	*2*	*5*	*7*	*15*
Accuracy class	*2*				
Environmental class	*C (-25°C + 55)*				
Pressure loss class ΔP (bar)	*0,63*				
Maximum permissible operating pressure MAP (bar)	*16*				
1) Length of the meter excluding fittings (mm)	*110-115*	*130*	*160*	*160*	*200*
Length of the meter, including fittings (mm)	*190-195*	*228*	*260*	*280*	*340*
2) Maximum height (mm)	*130*	*130*	*150*	*150*	*165*
3) Maximum overall diameter (mm)	*80*	*80*	*100*	*100*	*110*
4) Distance between the pipe and the meter mounting surface (mm)	*24*	*24*	*34*	*34*	*42*
Weight including fitting kit (kg)	*0,850*	*1,10*	*1,75*	*2,0*	*3,46*
Weight excluding fittings (kg)	*0,690*	*0,86*	*1,28*	*1,33*	*2,42*

The following options are available on request:

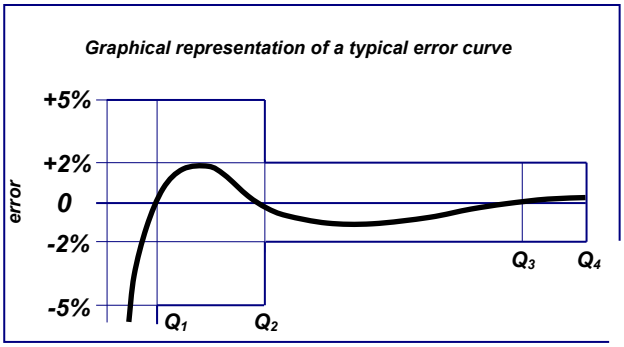
- ❑ Resin coating
- ❑ LoRaWAN protocol operating at 915 MHz



Head loss diagram



Graphical representation of a typical error curve



Technical specifications of the radio module

Meter reading	Inductive sensor
Battery life	13 years
Operating environmental conditions	-10 °C … +55 °C
Enable radio transmission	Via an actuator integrated into the instrument body
Storage temperature	-20 °C … +60 °C
Protection rating	IP68
Certification	EC, European Directive on Electromagnetic Compatibility, LoRaWAN-certified product and OMS

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 M-Bus

	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

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

Made in ITALY

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AQUA European Association of Smart Meter Manufacturers