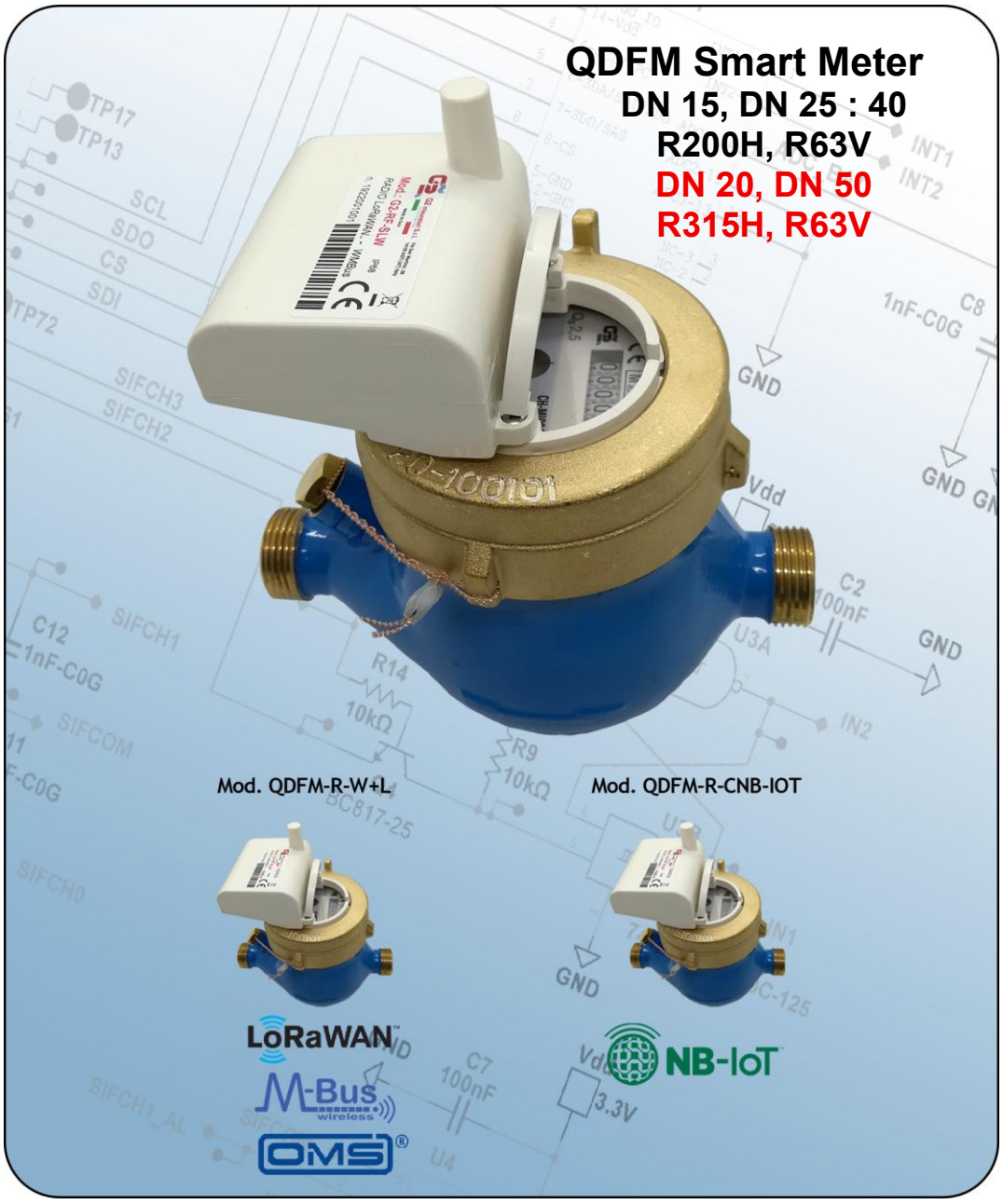
G2 misuratori

THE VALUE OF METERING

CE MID

Made in ITALY

SMART METERS



- Direct-reading smart meters with radio data transmission:

  - Meter with radio module, model **QDFM-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 **QDFM-R-CNBIOT**, with **MQTT protocol***
- Multi-jet counter with **fully liquid sealed counter type**, with mechanical transmission, **R200H R63V,** UO-D0, T50
- All models can be fitted with a serial number and the corresponding barcode or QR code, permanently engraved on the dial and on the radio label
- 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

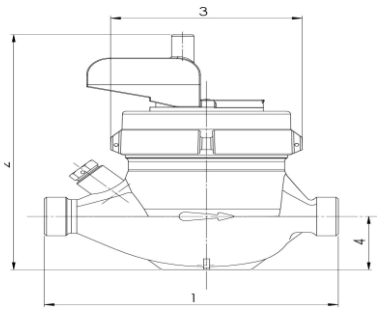
CE MID

Technical specifications for 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"	50 - 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 Q2 with measurement range R200H [MPE ±2%] (l/h)	20	32	50,40	80	128	200
Minimum flow rate Q1 with measuring range R200H [MPE ±5%] (l/h)	12,50	20	31,50	50	80	125
Starting flow with R200H measurement range (l/h)	3	5	8	8	15	18
Accuracy class	2					
Environmental class	C (-25°C + 55 °C)					
Pressure loss class ΔP (bar)	0,63					
Maximum permissible operating pressure MAP (bar)	16 (25 on request)					
1) Length of the meter excluding fittings (mm)	110-115-130 145-165-170 190	130-160-165 190	160-220-260	160-220-260	200-300	300
Length of the meter, including fittings (mm)	190-195-210 225-245-250 270	260-265 290	320-360	320-360	440	460
2) Maximum height with lid open (mm)	162	162	177	177	187	197
3) Maximum overall diameter (mm)	96	96	100	100	136	136
4) Distance between the pipe and the meter mounting surface (mm)	35	35	40	40	60	70
Weight including fitting kit (kg)	1,650	1,800	3,200	3,500	6,100	9,700
Weight excluding fittings (kg)	1,500	1,550	2,750	2,800	5,100	7,400

From R40H to R315H, from R40V to R63V – to be specified when ordering –

The following options are available on request:

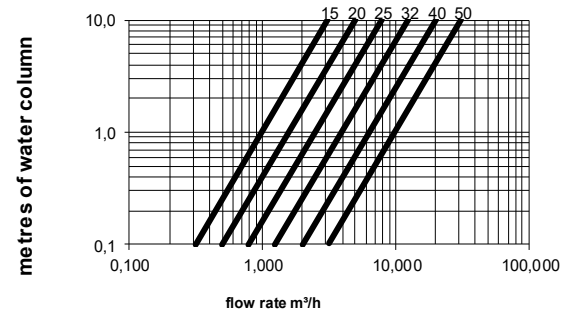
- ❑ Non return valve incorporated in the oulet duct
- ❑ Resin coating
- ❑ LoRaWAN protocol operating at 915 MHz



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

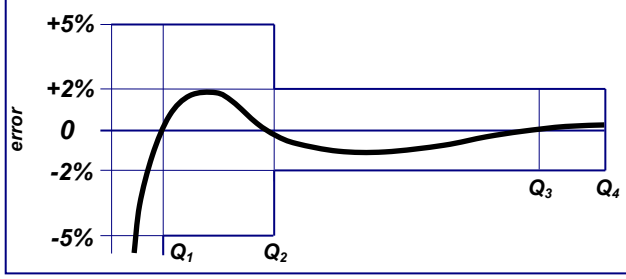
Head loss diagram



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

Graphical representation of a typical error curve



Technical specifications of the Wireless M-Bus 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

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

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

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AQUA European Association of Smart Meter Manufacturers