G2 misuratori

THE VALUE OF METERING

CE MID

SMART METERS

- Smart meter: a direct-reading rotary-piston volumetric meter with radio data transmission:

  -meter with radio module Mod. **VSF-R-W+L** protocol **LoRaWAN for fixed network** + protocol **W-Mbus OMS for Walk-by/Drive:** the system **automatically** switches between the fixed-network protocol and the walk-by/drive-by protocol.
  - meter with radio module Mod. **VSF-R-CNB-IOT** with protocol MQTT*
- Sizes DN 15-20, dry-dial, for clean water, temperature class T50
- All models are **MID-**approved in accordance with the current Directive (Module B+D), in compliance with standards **EN 14154** and **OIML R49**, achieving an R (Q3/Q1) rating of up to **1000**
- 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 No. **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

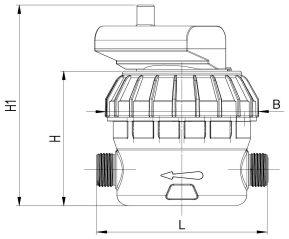
SMART METERS

Technical specifications – DN	15	20
Permanent flow rate Q_3 (m^3/h)	**2,5**	**4**
Overload capacity Q_4 (m^3/h)	3,125	5
Transition flow rate Q_2 (l/h)	8	12,8
Minimum flow rate Q_1 (l/h)	5	8
Measuring range R (**Other R models available on request**)	500 HV	500 HV
Starting flow (l/h)	0,5	0,5
Pressure loss class ΔP (bar)	0,63	0,63
Body material	Composite/Brass	Brass
Operating ambient temperature	-25° + 55°C	
Maximum permissible operating pressure MAP (bar)	16	16
Dial display range min / max (m^3)	0,0001 / 100.000	0,0001 / 100.000
L) Length of the meter excluding fittings (mm)	110-115-145-165-170	130-190
Length of the meter, including fittings (mm)	190-195-210-225-250	226-290
H) Maximum height of standard model (mm)	105	130
H1) Maximum height when pulses are being emitted (mm)	150	170
B) Maximum overall diameter (mm)	98,5	90
Weight including fitting (kg)	0,69	1.8
Weight excluding fittings (kg)	0,49	1.5

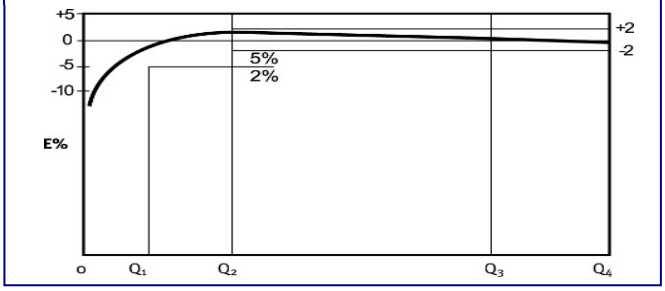
A newly designed model that ensures:
- maximum quietness (<20dB)
- compact dimensions,
- a filtration system designed to withstand high levels of airborne particles

The following options are available on request:

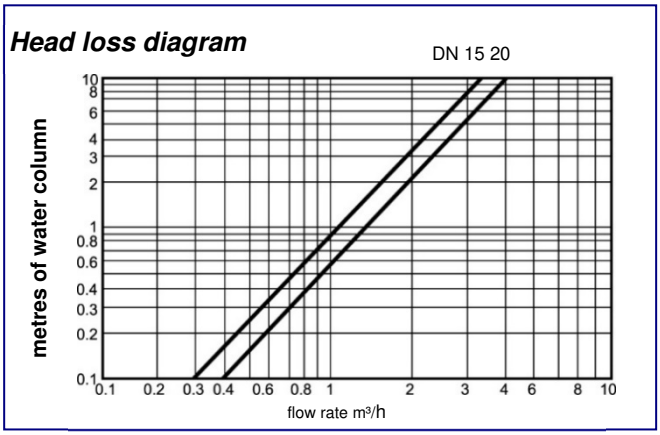
- ❑ Non-return valve built into the outlet
- ❑ Optional duct filter
- ❑ Resin coating on request
- ❑ LoRaWAN protocol operating at 915 MHz (on request)



Typical error curve



Head loss diagram



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
Degree of protection	IP68
Certification	EC, European Directive on Electromagnetic Compatibility

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 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

G2 misuratori S.r.l. -
Via San Martino, 38 – 14100 ASTI (AT) – ITALY
Tel. +39. 0141.721787– Fax +39.0141.702280
E-mail: info@g2misuratori.it
Http://www.g2misuratori.it

Filiale Centro-Sud
Via Fontanelle, 3 – 00020 RIOFREDDO
Città metropolitana di Roma Capitale – ITALY

Made in ITALY

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

AQUA European Association of Smart Meter Manufacturers