

Residential Use

# CD ONE TRP MID WATER METER



## Single jet sealed register and fully protected dry dial water meters

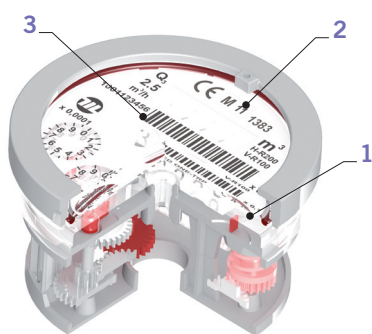
CD ONE TRP MID is the latest range of single jet water meters by Maddalena. CD ONE TRP MID meters feature a sealed register and a fully protected dry dial design. CD ONE TRP MID meters comply with the strict requirements of the Directive 2004/22/EC on measuring instruments and of European Standard EN 14154. CD ONE TRP MID meters combine high performance at low flow rates and maximum resistance to high flow rates and pressure. CD ONE TRP MID meters are designed for remote communication: they may be equipped with a latest generation pulse emitter and a radio module maintaining the mechanical and metrological features and without affecting readability. CD ONE TRP MID meters are guaranteed by Maddalena: manufacturer of high quality measuring instruments for the past century.

# CD ONE TRP MID WATER METER

CD ONE TRP MID is a single jet water meter for cold and hot water. It features a sealed register and a fully protected dry dial design. The totalizer and the dial face with the MID inscriptions and serial number are not in contact with the water thus ensuring readability with scaling or ferrous water or where small debris may be encountered. Readability is ensured by the tempered mineral glass lens. Unlike plastic lenses it is scratch resistant and does not turn opaque; the surface is also totally smooth for perfect visibility.

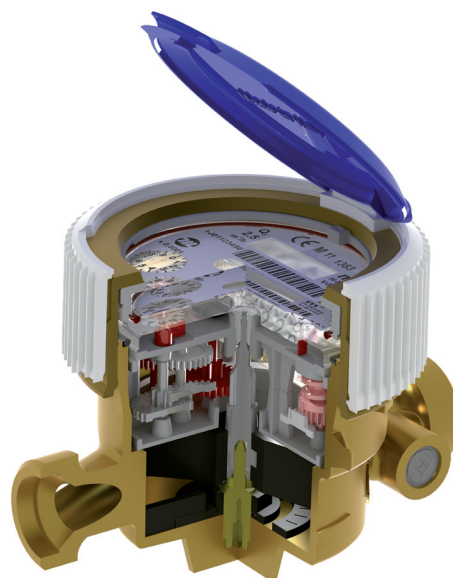
CD ONE TRP MID meters are tamperproof and insensitive to external magnetic fields. Metrological performance is not affected by the installation conditions and by the water characteristics. CD ONE TRP MID water meters may be equipped with a latest generation static bidirectional pulse emitter. They also come pre-equipped to retrofit the pulse emitter maintaining the meter's performance and design and the mineral glass lens.

CD ONE TRP MID water meters comply with Directive 2004/22/EC (Annex MI-001) and are certified in accordance with conformity assessment procedure B+D. The maximum measuring range Q3/Q1 (R) certified is 250 which allows to obtain water meters with lower R values (160, 125, 100, etc.). CD ONE TRP MID water meters are also certified for use with potable water in accordance with Italian (D.M. 6/4/2004 no. 174) and international regulations.



## Technical Specifications

- Tempered glass lens of adequate thickness (1)
- The totalizer, the fractional dials, the inscriptions (MID) and the serial number are in a dry compartment and remain always readable (2)
- The version retrofittable with the pulse emitter maintains both the mineral glass lens and inscriptions
- The serial number is marked on the dial both in numbers and in bar code format. It is also engraved on the closing ring (3)
- A non-return valve fitted into the coupling is available upon request
- Internal components are made of anhygroscopic, anti-scaling and hard-wearing plastic materials
- Maximum water temperature: 50°C (cold water) and 90°C (hot water)
- Nominal working pressure: 16 bar
- Installation: horizontal or vertical. No upstream and downstream straight pipe requirements.
- Hydraulic tests are carried out at three flow rates (Q1, Q2, Q3) on 100% of the production. Our testing benches comply with standards ISO 4064/3 and ISO 4185 (EN 14154/3) and are approved by a European notified body
- Hot forged brass body
- Hot forged closing ring
- Stainless steel numbered drums' shaft
- Inlet strainer with wide straining area



## HYDRAULIC PERFORMANCE

| SIZE  | mm                            | 15   | 20  | 25    |
|---|-------------------------------|------|-----|-------|
|   | in                            | ½    | ¾   | 1”    |
| Module B no.  | TCM 142/08-4627               |      |     |       |
| Module D no.  | 0119-SJ-A010-08               |      |     |       |
| Metrological class MID                              | R (Q3 / Q1) ≤ 250 H - ≤ 100 V |      |     |       |
| Performance in accordance with Directive 2004/22/CE |                               |      |     |       |
| Q3  | m³/h                          | 2.5  | 4.0 | 6.3   |
| Q4  | m³/h                          | 3.13 | 5.0 | 7.9   |
| R160  |                               |      |     |       |
| Q1  | l/h                           | 15.6 | 25  | -     |
| Q2  | l/h                           | 25   | 40  | -     |
| R100  |                               |      |     |       |
| Q1  | l/h                           | 25   | 40  | 63    |
| Q2  | l/h                           | 40   | 64  | 100.8 |

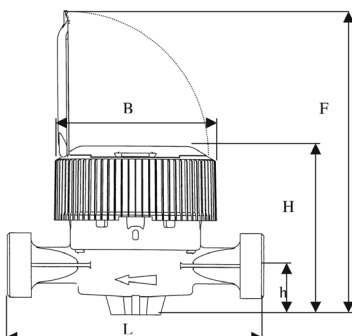
R options available upon request

## TECHNICAL SPECIFICATIONS

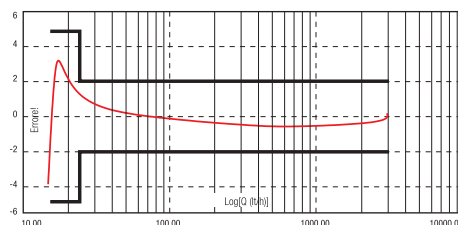
|  |  |   |         |         |
|--|--|---|---------|---------|
| Maximum permissible error between Q <sub>1</sub> and Q <sub>2</sub> (excluded) | +/- 5%   |   |         |         |
| Maximum permissible error between Q <sub>2</sub> (included) and Q <sub>4</sub> | +/- 2% with water temperature ≤ 30° C<br>+/- 3% with water temperature > 30° C |   |         |         |
| Temperature class  | T30, T50 and T30/90  |   |         |         |
| Flow profile sensitivity classes   | U0 - D0 (no upstream and/or downstream straight lengths requirements)          |   |         |         |
| Starting flow rate   | l/h  | 4-5                                     | 7-9     | 16-18   |
| Pressure loss class (ΔP at Q <sub>3</sub> )                                    | bar  | ΔP 63                                   |         |         |
| Nominal pressure   | bar  | 16                                      | 16      | 16      |
| Maximum reading  | m³   | 100,000                                 | 100,000 | 100,000 |
| Minimum reading  | l  | 0.05                                    | 0.05    | 0.05    |
| Turbine revolutions per litre  |  | 29.76                                   | 22.83   | 12.53   |
| Weight   | kg   | 0.75                                    | 0.92    | 1.25    |
| Pulse options  | l/pulse  | 1-10 (Quadruplus); 1-10-100-1000 (Reed) |         |         |

## DIMENSIONS

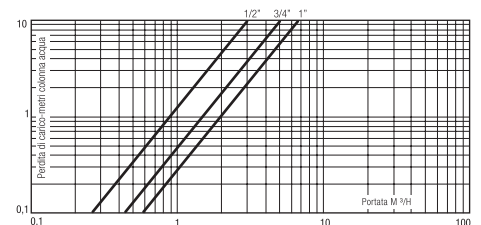
|                       |    |         |      |      |
|-----------------------|----|---------|------|------|
| L                     | mm | 110-115 | 130  | 160  |
| Length with couplings | mm | 190-195 | 228  | 260  |
| H                     | mm | 87      | 87   | 87   |
| h                     | mm | 25,5    | 25,5 | 25,5 |
| B                     | mm | 82,4    | 82,4 | 82,4 |
| F                     | mm | 158     | 158  | 158  |



## Typical error curve



## Headloss diagram



## ACCESSORIES



### REED SINGLE PULSE EMITTER

Suitable for industrial batching.



### QUADRAPLUS PULSE EMITTER

**Static** bidirectional pulse emitter; designed to detect false pulses; battery-powered.



### ARROW RADIO MODULE

Paired with the Quadrapuls static pulse emitter or reed single pulse emitter it enables the remote reading of water meters.



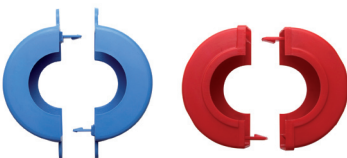
### NON-RETURN VALVE

Fitted into the coupling; designed to stop reverse flow that may damage the water meter.



### COUPLING KIT

It consists of two nuts, two tail pieces and two gaskets.



### SEALS

Designed to secure the water meter to the pipe.

For more information on the accessories please refer to the relevant data sheet.

 **maddalena®**  
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ISO 9001 - Cert. n° 0773/5

For more information, please contact your sales representative:

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