

Residential Use

# DS TRP MID WATER METER



## Multi-jet sealed register water meter

DSTRP MID is the latest range of multi-jet sealed register water meters by Maddalena designed to meet the strict requirements of Directive 2004/22/EC on measuring instruments and of European Standard EN 14154.

DSTRP MID combines high performances at low flow rates and maximum resistance to high flow rates and pressure.

DSTRP MID may be equipped with pulse emitters of the latest generation and with radio modules for remote reading.

DSTRP MID is guaranteed by Maddalena: manufacturer of high quality measuring instruments for the past century.

# DS TRP MID WATER METER

**DS TRP MID is a multi-jet sealed register water meter.** The register mechanism is housed in a dry compartment meaning that it does not come into contact with the flowing water. As a result it remains perfectly clear ensuring reading with scaling water or where sand particles or small debris may be suspended in the water.

DS TRP MID water meters are certified in accordance with Directive 2004/22/EC, Annex MI-001, and have undergone conformity assessment procedure B + D. The **maximum measuring range Q3/Q1 (R) certified is 200** which allows to obtain water meters with lower R values (160, 125, 100. etc.)

DS TRP MID water meters are available in a pre-equipped version for the future installation of a **bi-directional static pulse emitter**. **The pulse emitter can be fitted maintaining the meter characteristics and without replacing the mineral glass lens.** DS TRP MID water meters are also certified for use with potable water in accordance with Italian and international regulations.

## Technical specifications



- Tempered glass lens of adequate thickness
- The register can be customized with a **bar code** representing the water meter serial number
- Cast brass body (OT58)
- Hot forged brass closing ring (OT58)
- Internal and external epoxy powder coating (60-70 micron thick)
- Stainless steel 18/8 numbered drums' shaft
- Inlet strainer with wide straining area
- Internal components made of anhygroscopic, anti-scaling and wear resistant plastic materials
- Nominal working pressure: 16 bar
- Upstream or downstream straight lengths are not required
- Maximum water temperature: 50° C
- **Cubic metre fractions and MID inscriptions are in the sealed register which ensures reading in any operating conditions**
- 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
- Non-return valve available upon request
- PiiP certification mark available upon request on Q3 2.5 water meters



## HYDRAULIC PERFORMANCES

Diameter	mm	15	20	25	30	40	50
	inches	½	¾	1	1¼	1½	2

Module B no. TCM 142/08-4604

Module D no. 0119-SJ-A010-08

Metrological class - MID R (Q3 / Q1) ≤ 200

### Performances in accordance with Directive 2004/22/EC

Q <sub>3</sub>	m <sup>3</sup> /h	2.5	4.0	6.3	10.0	16.0	25.0
Q <sub>4</sub>	m <sup>3</sup> /h	3.3	5.0	7.9	12.5	20.0	31.0
<b>R160</b>							
Q <sub>1</sub>	l/h	15.6	25	39.4	62.5	100	156.2
Q <sub>2</sub>	l/h	25	40	63	100	160	250
<b>R100</b>							
Q <sub>1</sub>	l/h	25	40	63	100	160	250
Q <sub>2</sub>	l/h	40	64	100.8	160	256	400

Other values of R available upon request

## TECHNICAL DATA

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  
 +/- 3% with water temperature ≤ 50° C

Temperature class T30 and T50

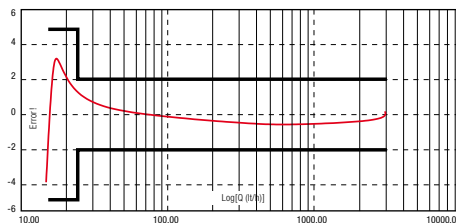
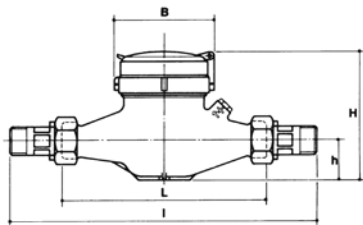
Flow profile sensitivity classes U0 - D0  
 (upstream or downstream straight lengths not required)

Starting flow rate	l/h	4-5	7-9	16-18	22-24	28-30	28-30
Pressure loss class (ΔP @ Q <sub>3</sub> )	bar	Δ P 63					
Nominal pressure	bar	16	16	16	16	16	16
Maximum reading	m <sup>3</sup>	100,000	100,000	100,000	100,000	1,000,000	1,000,000
Minimum reading	l	0.05	0.05	0.05	0.05	0.05	0.05
Turbine revolutions per litre		25.31	19.41	11.22	10.04	4.40	3.16
Weight	kg	1.450 (for L=145mm)	1.610 (for L=190mm)	2.300	2.400	4.500	9.500 threaded 14.000 flanged

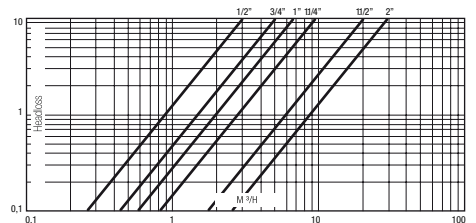
## DIMENSIONS

Length	mm	110-130-145 160-165-170 190	160-190	220-260	220-260	300	300
Length with couplings	mm	210-225 240-245-250	258-288	338-378	338-378	438	461 (Flanged 300)
H	mm	114	114	123	123	163	175
h	mm	36.5	36.5	43	43	64.5	77
B	mm	97.5	97.5	97.5	97.5	130	154

Typical error curve



Headloss diagram



# ACCESSORIES



## SINGLE REED SWITCH PULSE EMITTER

Suitable for industrial batching.



## QUADRAPLUS PULSE EMITTER

Static bi-directional pulse emitter, equipped with false pulse detection device, battery-powered.



## ARROW RADIO MODULE

In combination with Quadraplus static pulse emitter it enables the remote reading of water meters.



## NON-RETURN VALVE

Fitted into the water meter outlet it prevents flow return that may damage the water meter.



## COUPLING KIT

It includes two nuts, two tail pieces and two gaskets.



## SEALS

Designed to secure the water meter to the pipe.

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



ISO 9001 - Cert. n° 0773/4



[www.maddalena.it](http://www.maddalena.it)

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