

Residential Use

DS SD MID WATER METER



Dry dial magnetic drive multi-jet meter

DS SD MID is the latest range of dry dial multi-jets by Maddalena designed to meet the strict requirements of the Directive 2014/32/EU on measuring instruments and European Standard EN 14154.

DS SD MID combines high performance at low flow rates and maximum resistance to high flow rates and pressure.

DS SD MID is designed for remote communication: a pulser of the latest generation and a radio module may be fitted maintaining the mechanical design, the metrological features and without affecting readability.

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

DS SD MID WATER METER

DS SD MID is a dry dial magnetic drive multi-jet meter. The impeller is the only part in contact with the water, **thus ensuring readability with scaling water or where debris or sand particles may be encountered.** Readability is also guaranteed by the mineral tempered glass lens. Unlike plastic lenses, its flat and smooth surface is scratch resistant and does not turn opaque. The metrological performance is unaffected by the installation conditions and the water characteristics.

A highly effective magnetic protection ensures insensitivity to external magnetic fields or particles suspended in water.

DS SD MID water meters may be equipped with a new generation bidirectional static pulser. It may be retrofitted on **pre-equipped water meters** maintaining the original features, the design and **the mineral glass lens.**

DS SD MID water meters are certified in accordance with the Directive 2014/32/EU (Annex MI-001) and have undergone conformity assessment procedure B + D. The **maximum measuring range Q_3/Q_1 (R) certified is 160.** As a result, water meters with a lower ratio (R 125, 100, 80 etc.) may also be manufactured.

DS SD MID water meters are also certified for use with potable water in accordance with the Italian ministerial decree 6 April 2004 no. 174.

Technical specifications

- The meters comply with the **Directive 2014/32/EU** (Annex MI-001)
- **Tempered mineral glass** lens of adequate thickness
- The pre-equipped meters maintain both the mineral glass lens and the standard inscriptions
- **Strong protection against external magnetic fields**
- The serial number is marked on the closing ring. It may be also marked on the dial (in bar code format)
- No upstream or downstream straight pipe requirements
- Hydraulic tests are carried out at three flow rates (Q_1 , Q_2 , Q_3) on 100% of the production. Our testing benches comply with the standards ISO 4064/3 and ISO 4185 (EN 14154/3) and are approved by a European notified body
- Cast brass body
- Hot forged brass closing ring
- Internal and external epoxy powder coating
- Inlet strainer
- Non-return valve available upon request
- Internal components made of anhygroscopic, anti-scaling and wear resistant plastic materials
- Maximum water temperature: 50 °C
- Nominal working pressure: 16 bar

HYDRAULIC PERFORMANCE

SIZE	mm	15	20
	in.	1/2"	3/4"
Module B no.		TCM 142/16 5358	
Module D no.		0119-SJ-A010-08	
Metrological class – MID		R (Q ₃ /Q ₁) ≤ 160 H	
Performance in accordance with Directive 2014/32/EU			
Q ₃	m ³ /h	2.5	4.0
Q ₄	m ³ /h	3.13	5.0
R160			
Q ₁	l/h	15.6	25
Q ₂	l/h	25	40
R100			
Q ₁	l/h	25	40
Q ₂	l/h	40	64

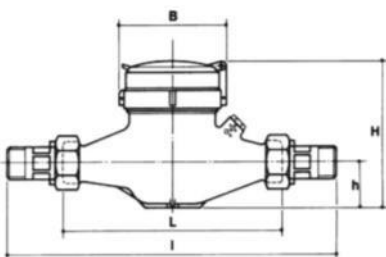
Other R options available upon request

TECHNICAL DATA

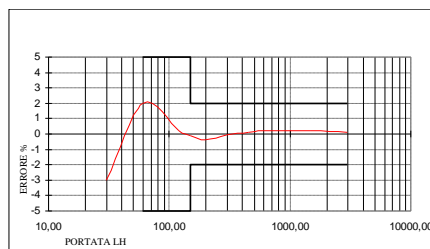
Maximum permissible error between Q ₁ and Q ₂ (excluded)		+/-5%	
Maximum permissible error between Q ₂ (included) and Q ₄		+/-2% with water temperature ≤30 °C +/-3% with water temperature >30 °C	
Temperature class		T30 and T50	
Flow profile sensitivity classes		U0 - D0 (no upstream or downstream straight lengths requirements)	
Starting flow rate	l/h	7-8	8-9
Pressure loss class (ΔP at Q ₃)		ΔP 63	
Nominal pressure	bar	16	16
Maximum reading	m ³	100,000	100,000
Minimum reading	l	0.05	0.05
Turbine revolutions/litre		36.39	25.00
Weight	kg	1,450 (L=145 mm)	1,610 (L=190 mm)
Pulse options	l/pulse	1/10 (Quadraplus); 1/10/100/1000 (reed switch)	

DIMENSIONS

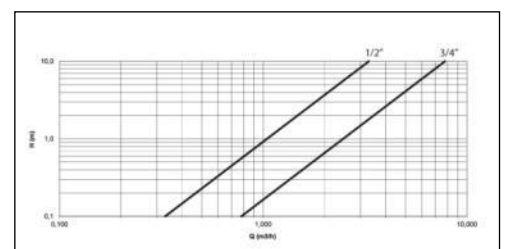
L	mm	105 (V)/110/130/145 160/165/170/190	160/190
Length with couplings	mm	210 / 225/240 / 245/250	258/288
H	mm	114	114
h	mm	36.5	36.5
B	mm	97.5	97.5



Typical error curve



Head loss diagram



ACCESSORIES



SINGLE REED SWITCH PULSER

Suitable for industrial batching.



QUADRAPLUS PULSER

Static bidirectional pulser, for detection of false pulses; battery-powered.



ARROW RADIO MODULE

Used with the Quadraplus static pulser for reading remotely water meters.



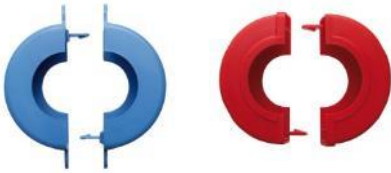
NON-RETURN VALVE

Fitted into the coupling for protection against backflow.



COUPLING KIT

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



SEALS

Designed to secure the water meter to the pipe.

Please refer to the individual data sheet for more information on the available accessories.



METERING EXPERTISE

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