



Main Characteristics

- DN15 to DN50, PN16.
- Tempered glass register lens.
- Internal and external 60-70 micron fusion bonded epoxy coated brass body (OT58).
- Horizontal installation only.
- OIML R49 (R200) and ISO 4064 Class C pattern approval.
- Low flow performance with high flow and pressure resistance.
- Inductive pulse and radio read module options.
- Quiet Multi-Jet operation and reliability.
- No straight pipe is required.
- TRP = Totalizer Register Protection, ensures reading accuracy.

Application

- DS TRP is a reliable long life precision Multi-Jet Meter.
- Residential, Commercial, Rural metered connections, Industrial Process, Agricultural and Irrigation Resources Consent Meter.
- Large in-built strainer protection, Stainless Bearing Pins, Protected register prepared for automatic meter reading.
- Large Flow range characteristics with low starting flow.
- Tamper Proof design.

Approvals

EEC Pattern Approval:

in conformity with:

- 75/33/EEC and ISO 4064 Class C
- For DN15, DN20, DN25, DN30, DN40, DN50
EEC approval no B89 317.01 to 05

EC type-examination certificate:

in conformity with:

- 2004/22/EC (MID) Annex M1-001
- EN 14154:2007
- OIML R49:2006 certified R200

Module B no. TCM 142/08-4604

Module D no. 0119-SJ-A010-08

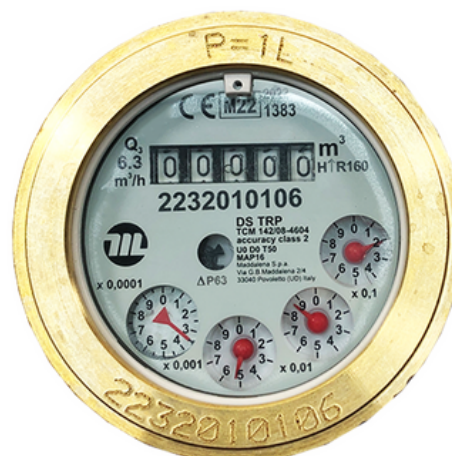
DN15, DN20, DN25, DN30, DN40, DN50

Compliance for Portable drinking water:

KTM / DVGM (D) ACS (F)

WRAS (UK) Hydrocheck

Typical Marking



Maddalena Factory Marking is available to either ISO 4064 Class C or OIML R49 Class 2 R200 pattern approval certifications.

Accuracy and Reliability

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 for reading when used with scaling or sand particles suspended in the water. Stainless Steel 18/8 numbered drum and bearing shafts ensure accuracy is maintained for long meter life.

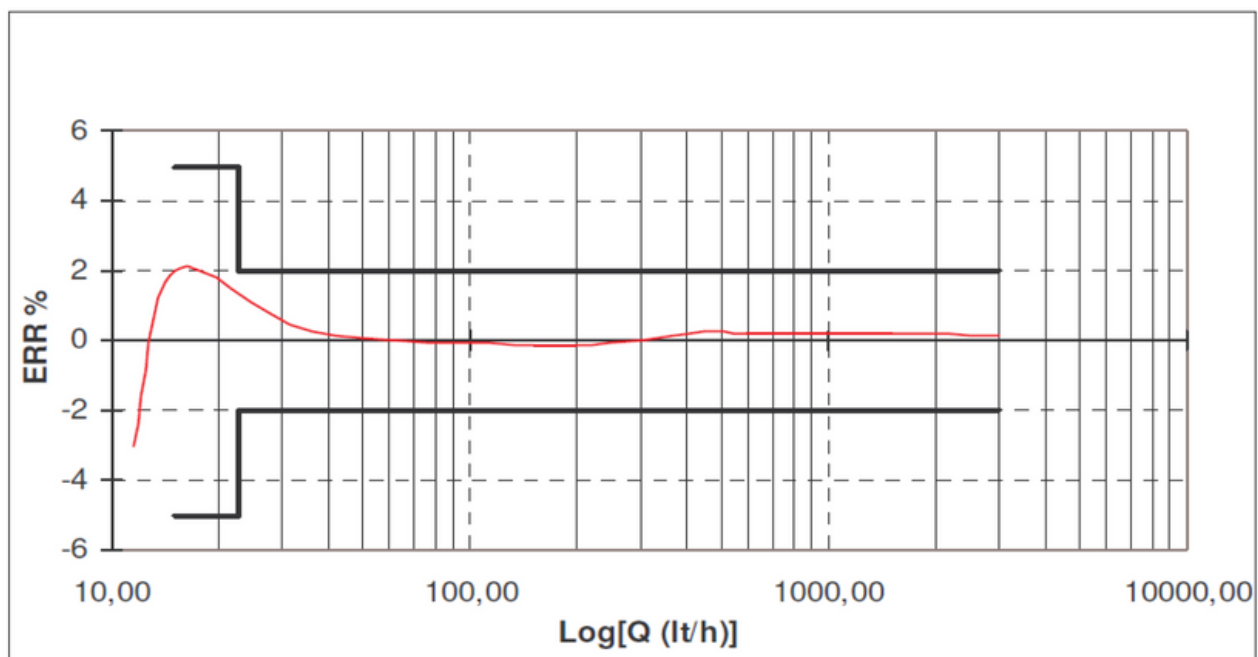
Internal components are made of unhygroscopic, anti-scaling and wear-resistant plastic materials. Each meter is hydraulically tested at three flow rates (Q1, Q2, Q3) on 100% of the production.

Meter performance exceeds previous ISO 4064 Class C.

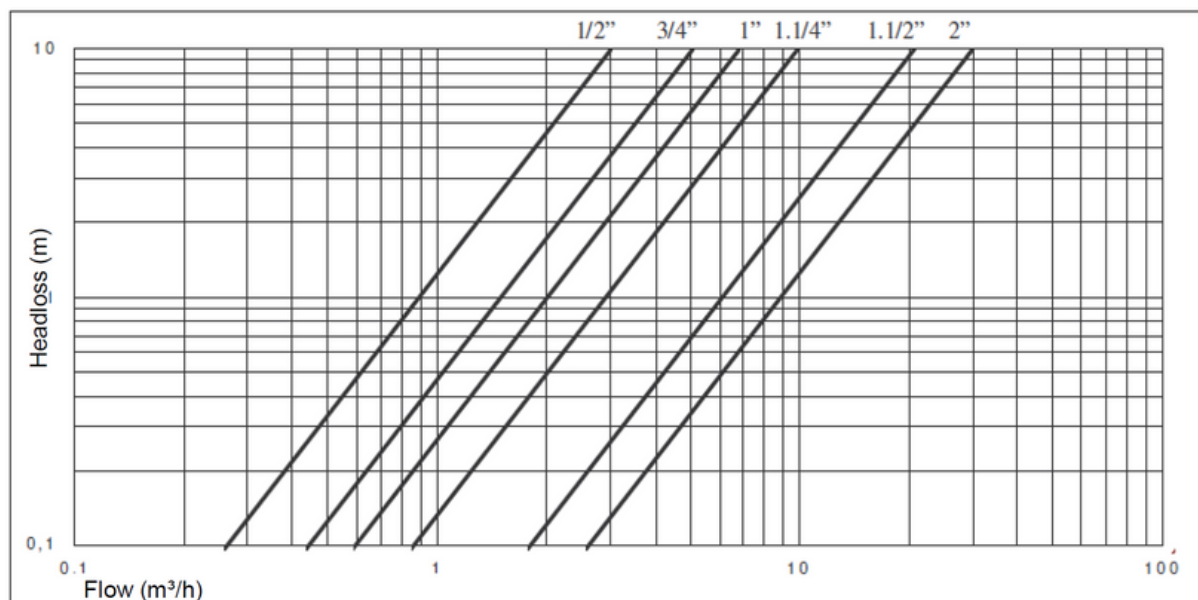
Legibility

The display on five drums for m³ and four pointer dials for litres ensures perfect reliability. The lowest resolution is 0.1 litres. The dial has a central disc for leak detection. The register is within a dry-protected housing isolated from water flow to ensure clear readings over the life of the meter.

Typical Accuracy Curve



Typical Headloss Curve



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 (Q1, Q2, Q3) 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

Diameter	mm	15	20	25	30	40	50
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

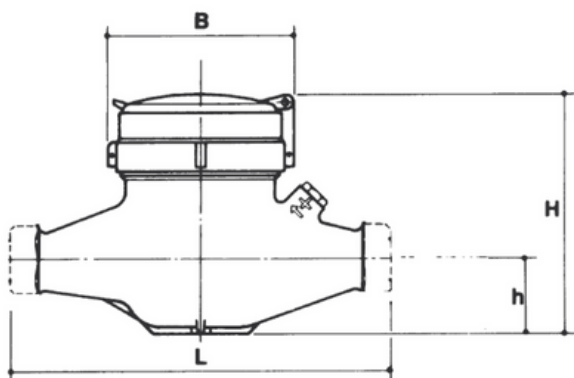
Q3 - m3/h	2.5	4.0	6.3	10.0	16.0	25.0
Q4 - m3/h	3.3	5.0	7.9	12.5	20.0	31.0
R160						
Q1 - l/h	15.6	25	39.4	62.5	100	156.2
Q2 - l/h	25	40	63	100	160	250
R100						
Q1 - l/h	25	40	63	100	160	250
Q2 - l/h	40	64	100.8	160	256	400

Technical Data

Maximum Permissible error between Q1 and Q2 (excluded)	+/-5%
Maximum Permissible error between Q2 (included) and Q4	+/-2% with water temperature $\leq 30^{\circ}\text{C}$ +/-3% with water temperature $\leq 50^{\circ}\text{C}$
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 ($\Delta P@Q3$) - Bar	$\Delta P 63$					
Nominal Pressure - Bar	16	16	16	16	16	16
Maximum Reading - m ³	100,000	100,000	100,000	100,000	100,000	100,000
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 14.500 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	114	114	123	123	163	175
h	36.5	36.5	43	43	64.5	77
B	97.5	97.5	97.5	97.5	130	154

Pulse Options

- Single Reed Switch Pulse Emitter

