



Multimag TMII

Multijet Water Meter - DN15 & DN40

Multimag TM II is a velocity meter multi-jet type, for cold water application. It has been developed based on years of experience in the metering business and considering several different demands, creating a whole product family. The value of the whole family is not only all the additional features presented in each version, but the metrology performance and the high robustness and durability.

FEATURES AND BENEFITS

- » Multijet velocity meter
- » Direct magnetic transmission
- » Ease of maintenance
- » Outstanding metrology
- » Operate in several conditions / environments
- » Register with moisture or wet indicator
- » Reliability
- » Robustness
- » Different versions

Technology

Using high quality materials and exclusive measuring elements design, the water flows into the meters keeping the turbine balanced, reducing the wear and assuring stable metrological Performance. In addition to that the extra-dry registers, combined with magnetic transmission guaranty very durable accuracy.

Metrology

Multimag TM II is available in two different metrology classes (ratio / range). R50 and R100 in horizontal position according to ISO 4064 : 2014 or OIML R49 : 2013.

Main Characteristics

- » Enhanced design and technologies with long-term reliability
- » High quality engineering materials
- » Register can be oriented to allow easily reading
- » 100% of the products are calibrated on electronic test benches and all results can be provided
- » Robust against different types of frauds

Adaptability

Multimag range enables different configuration for same hydraulic performance, according to different installation conditions or customer Requirement. Adapted to any condition of use in difficult environments. Body in bronze or brass painted externally compose standard configuration.

Communication

Copper can with glass register and pre-equipped for future needs of communication thanks to Cyble™ technology.

Approvals

- Comply with different international standards, such as.
- » ABNT NM212 (South America)
 - » EEC 75/33 (Europe)
 - » IS:779:1994 (India)
 - » ISO 4064 (and derived standards)
 - » NOM-012-SCFI (Mexico)
 - » Portaria INMETRO 246 (Brazil)
 - » SANS 1529-1:2003 (South Africa)
 - » SNI 2547-2008 (Indonesia)

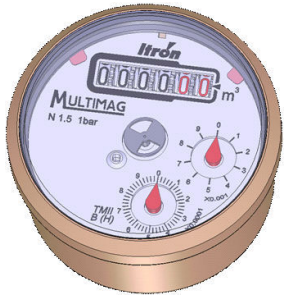
Register

The Multimag TMII meters can be equipped with different registers types, allowing different configurations appropriate to each installation conditions.

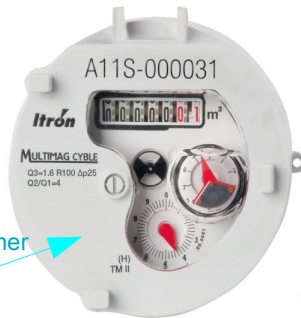


» Copper Can Registers

Very robust against frauds, completely hermetical, indicated for severe environmental conditions, and pits subjected where the meters get submersion.



Multimag register with leakage indicator



Customer logo

» Cyble Versions

Pre-equipped registers (Copper can Cyble or Plastic Cyble), with cyble target, ready for installation of cyble modules, for AMR (Automatic Meter Reading)

All registers manufactured by Itron are certified in International Protection Rating.

- Plastic Registers – Protected against temporary immersion (IP67)
- Copper Can – Protected against prolonged effects of immersion under pressure (IP68)

Available Versions



Standard Version

The Standard version is the simplest one in the family. The meter has a plastic cover that is fixed through plastic lock. It allows easy maintenance.



Anti Fraud 3G

The Anti-Fraud 3G version was developed in order to prevent and identify frauds attempt. It has a red ring placed under the cover which can not be disassembled without breaking it. If any attempt of opening the meter, the cover gets broken and the red ring can easily be viewed.



Robust Version

This version is fully metallic body, being the most robust against tamperers, and severe environmental conditions. The opening of the meter is only possible by using special and dedicated tools.



Multimag Cyble

The increase of automated metering reading (AMR) required the Multimag Cyble that uses pre-equipped register. It is anti fraud meter ready to remote reading and a cover with four safe points to fix the Cyble modules.



Multimag TMII Cyble DN15mm - DN40mm

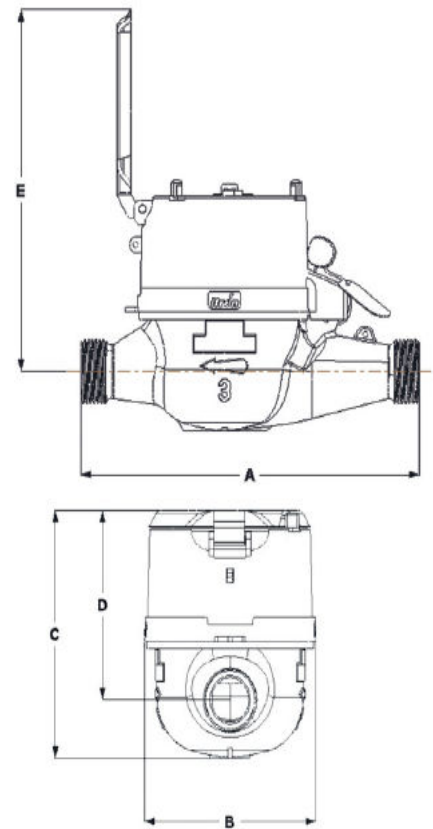
Technical Characteristics

Nominal Diameter (DN)	mm inches	15 1/2"				20 3/4"				25 1"		40 1 1/2"	
Model reference :		ISO4064:2014											
Accuracy Ratio	mm	R50		R100		R50		R100		R50	R100	R50	
Minimum flowrate - Q1	L/h	32	50	16	25	50	80	25	40	80	40	200	320
Transitional flowrate - Q2	L/h	51.2	80	25.6	40	80	128	40	64	128	64	320	512
Permanent flowrate - Q3	m ³ /h	1.6	2.5	1.6	2.5	2.5	4.0	2.5	4.0	4.0	10.0	16.0	
Maximum flowrate - Q4	m ³ /h	2.0	3.1	2.0	3.1	3.1	5.0	3.1	5.0	5.0	12.5	20.0	
Model reference :		ISO4064:1993											
Accuracy class		Class B		Class C		Class B		Class C		Class B		Class B	
Minimum flowrate - Qmin	L/h	30		15		50		25		70		200	
Transitional flowrate - Qt	L/h	120		22.5		200		37.5		280		800	
Permanent flowrate - Qn	m ³ /h	1.5				2.5				3.5		10.0	
Maximum flowrate - Qmax	m ³ /h	3.0				5.0				7.0		20.0	
Starting flow	L/h	< 10				12				25		70	
Metrological temperature	°C	30											
Maximum temperature (>1h)	°C	50								40			
Maximum operating pressure	bar	16											
Maximum Head loss at - Q4	bar	< 1.0											
Sensitivity class		U0 / D0											
Maximum reading	m ³	9999 or 99999						99.999					
Minimum reading	L	0.02											
Considering horizontal installation													

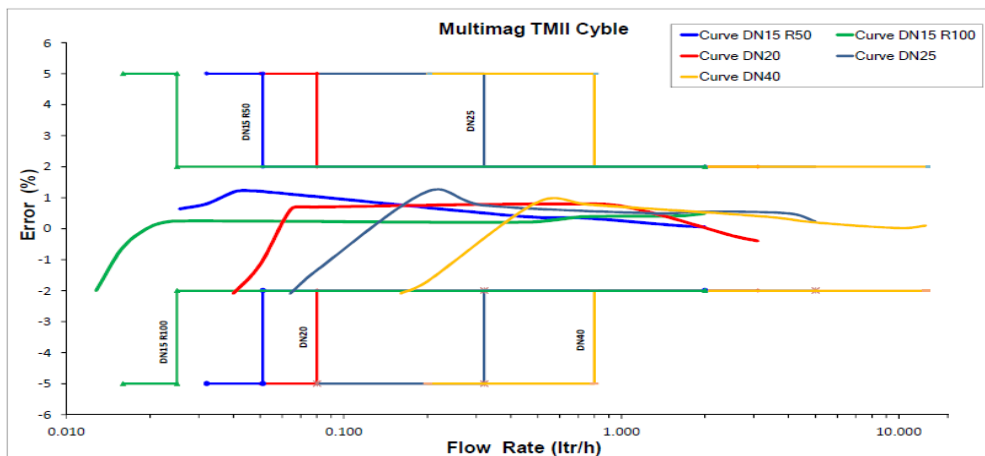
Dimensions

Nominal Diameter (DN)	mm	15	20	25	40	13 / 15	20	25	40
	inches	1/2"	3/4"	1"	1 1/2"	1/2"	3/4"	1"	1 1/2"
		Standard / 3G / cyble version				Robust / full brass version			
Weight	Kg	1.00	1.19	2.62	4.62	1.43	1.61	1.87	3.24
Thread connections	Inches	G 3/4" B	G 1" B	G 1 1/4" B	G 2" B	G 3/4" B or Taiwan std	G 1" B or Taiwan std	G 1 1/4" B or Taiwan std	G 2" B or Taiwan std
A (Body Length)	mm	165 or 170	190	260	300	165	190	210	245
B	mm	85	94	129	148	73.8	75.3	88.4	126.4
C	mm	104	120	148	175	101.3	114.1	144.7	175
D	mm	80	85	103	115	76.8	81.1	100.7	115
E	mm	148	153	175	195	152	156.3	175.9	195

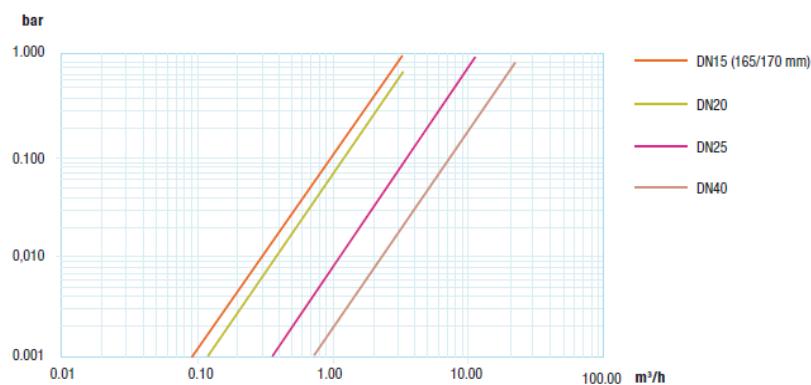
» In line version



Metrology Curve



Head loss Curve



ADAPTABILITY

Multimag TMII meters can be equipped with Cyble remote reading interfaces for automatic meter data collection offering:

- » Optimal reading and billing
- » Leak detection
- » Reverse flow detection
- » Fraud detection
- » Study of consumer habits

Cyble technology was designed to be adapted on every ITRON meter with a pre-equipped register.

Cyble technology advantages:

- » Reliability
- » Non sensitive to magnetic fraud
- » Field tested for more than 20 years



EverBlu Cyble



Cyble Sensor



Cyble M-Bus



Multimag Cyble is equipped with EverBlu Cyble

Transmission of data via radio frequency



Smartphone

Body Features

- » Painting: made in epoxy blue color (it can be done without color painting).
- » Available in difference bronze or brass body
- » It allows Non Return Valve installation.
- » Difference thread connections available.



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