



Multimag TM II

Multijet Water Meter for Residential DN15-20

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.

Communications

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:
- » MID - Directive 2014/32/EU (Europe)
 - » ISO 4064 (and derived standards)
 - » OIML R-49
 - » SNI 2547-2008 (Indonesia)

Register

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

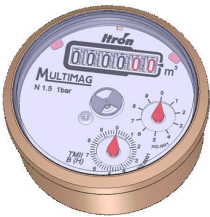


» Plastic Registers



» Copper can and Glass Registers

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



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.



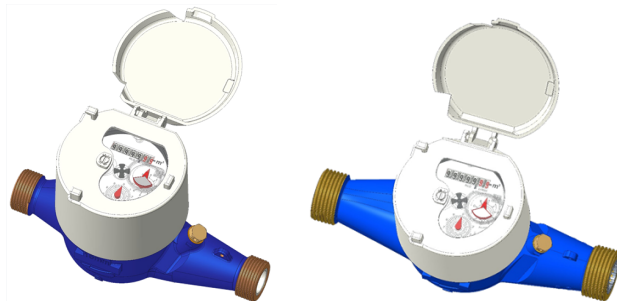
Anti Fraud 3G

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.



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 - DN20mm

METROLOGICAL CHARACTERISTICS

Nominal Diameter (DN)		mm inches	15 1/2"		20 3/4"				
According to MID/ISO Approval									
Ratio (R)	(Q3/Q1)		50	100	50	100	50	100	
Approval							MID/ISO4064*		
Minimum Flowrate	(Q1)	l/h	32	50	25	50	25	80	40
Transitional Flowrate	(Q2)	l/h	51	80	40	80	40	128	64
Permanent Flowrate	(Q3)	m ³ /h	1.6	2.5	2.5	2.5	2.5	4.0	
Maximum Flowrate	(Q4)	m ³ /h	2.0	3.125	3.125	3.125	3.125	5.0	
Typical Starting Flow		l/h	< 10			12			
Accuracy Class						2			
Temperature Class		°C				T50			
Installation Position						Horizontal			
Pressure Loss Class (at Q3)		bar				ΔP63			
Maximum Admissible Pressure (MAP)		bar				16			
Sensitivity Class						U0D0			
Minimum Reading		l				0.02			
Maximum Reading		m ³				9999.99 or 99999.99			
Climatic Environment		°C				-10 / +70			

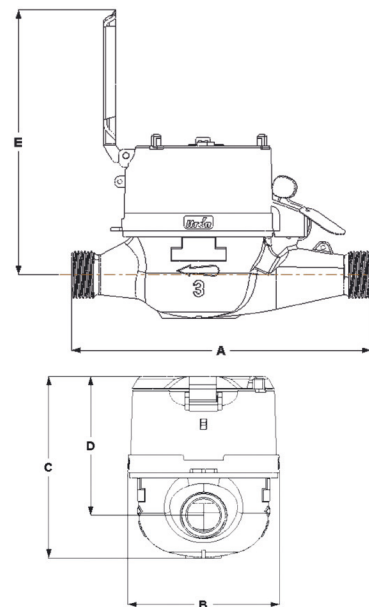
(*) MID: LNE-18726 rév. 5 / ISO 4064/2017: LNE-35521 rév. 1

DIMENSION

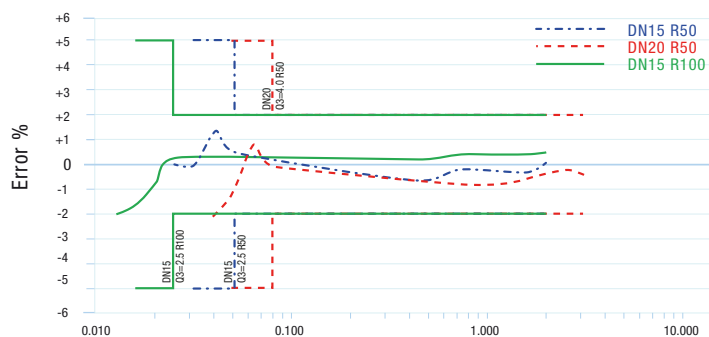
Nominal Diameter (DN)	mm inches	15 1/2"	20 3/4"
Thread Connections*		G 3/4" B	G 1" B
A (Body Length)	mm	165	190
B	mm	85	
C	mm	104	
D	mm	80	
E	mm	148	
Weight**	Kg	0.90	1.19

(*) Other standards may also be available. Please contact Itron for more information.
 (**) Weight may vary depending on meter configurations

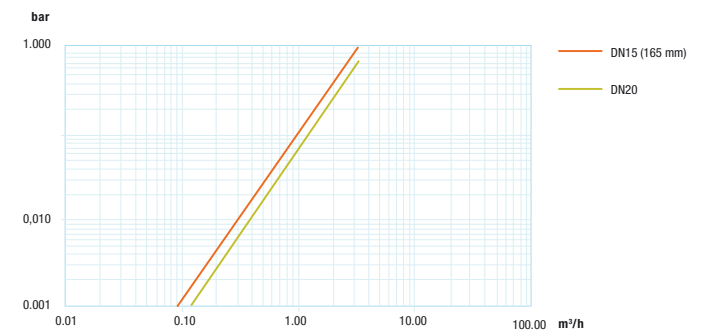
» Dimension



ACCURACY CURVE



HEAD LOSS CURVE



COMMUNICATIONS

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:

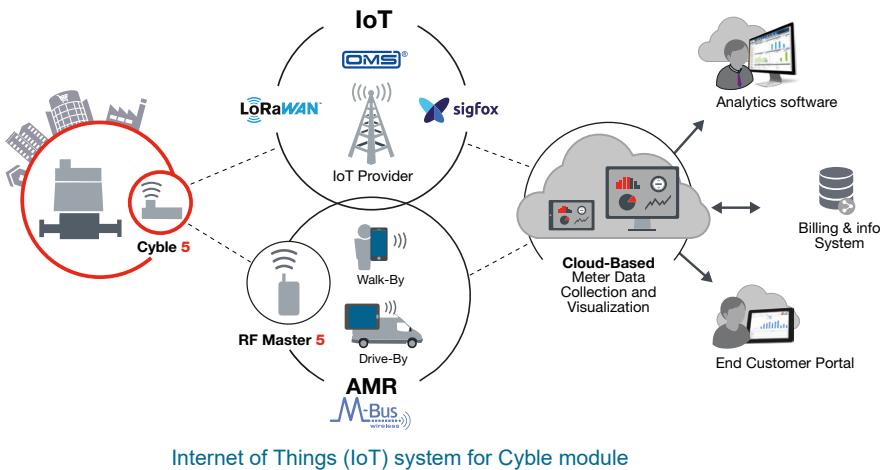
- » Reliability
- » Non sensitive to magnetic fraud
- » Field tested for more than 20 years



Cyble RF / IoT (wireless)



Cyble Sensor / MBus



Internet of Things (IoT) system for Cyble module



Multimag with Cyble module

Other Features

- » Body painting: made in epoxy blue color provides better surface layer protection.
- » Non Return Valve installation is supported.
- » Fully protected adjuster plug with seal placement.
- » Inlet filter protection with optimized contact surface: filtering unwanted particles while straightening the flow and maintaining low pressure loss.
- » Other features may be provided. Please contact Itron for further information.



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