



Unimag+

The domestic single jet

Unimag+ is a new Single Jet water meter designed for domestic use which can be transformed anytime into an advanced communicating device thanks to the application of the whole range of Itron Cyble communicating modules.

FEATURES AND BENEFITS

- » Accuracy Performance:
 - Stable and long term accuracy
 - Reduced risk of meter blocked
 - Low starting flow
- » Suitable for all installations and use:
 - Compact, short length
 - Cold and Hot Water
 - Composite and brass bodies
- » Robustness to tampering:
 - Enhanced magnetic and mechanical protection
- » Pre-equipped for Communication:
 - Radio mobile and fixed network
 - Wired pulse and M-bus output

The Technology

Unimag+ is a velocity meter with turbine Single-Jet principle combined with the well-known Itron extra-dry register technology. No parts of the register are in contact with the water flow.

Metrological Performance

The meter exceeds the MID accuracy Ratio 100 for horizontal position, and keeps R63 for vertical position.

Excellent accuracy at low flow rate, with a low starting flow value to detect little leakages.

New features

- » The hydraulic with double pivoting principle has been conceived to increase the resistance against particles and deposit and assure more constant accuracy in the time. With more error curve stability, Unimag+ is able to count flow rate below 8 l/h, thanks to friction-less materials used for bearings and contacts.
- » The body is available in composite and brass materials to answer different customer requirements. For both, the Itron severe internal and field validation protocols assure equivalent robustness to high network pressure (PN16 bar), water hammers, external environmental conditions and high water temperatures.
- » The meter is protected by magnetic tampering interferences through a design which has been validated against most known standardized magnets. Additional magnetic shielding is available as option.
- » A security ring has been placed under the cap to provide better resistance and more evidence to mechanical fraud tentative
- » The meter closure with shock-resistant plastic material is suitable for easy marking and customization.

A wide lid is available to preserve the index reading.

Three robust fixation points to fit the Itron AMR-AMI modules

Easy reading

- » Clear and high contrast Serial Number
- » 360° possible rotation of the register for comfortable reading in any position
- » 8 numbered rollers with high contrast for easy and error-free reading up to 99999,999 m³

Compliance with Standards

- » Metrology, approved according to:
 - MID - 2014/32/EU
 - ISO 4064
 - OIML R49
 - EN 14154
- » Materials
 - Unimag+ use certified materials specific for contact with potable water (ACS-Fra, KIWA-NL, KTW-De, WRAS-Uk, CCT-It)
 - All meter materials are compliant with RoHS normative.
- » Manufacturing, 100% manufactured in the EEC
 - ISO 9001:2008
 - ISO 14001: 2004
 - MID H1

PRODUCT CHARACTERISTICS

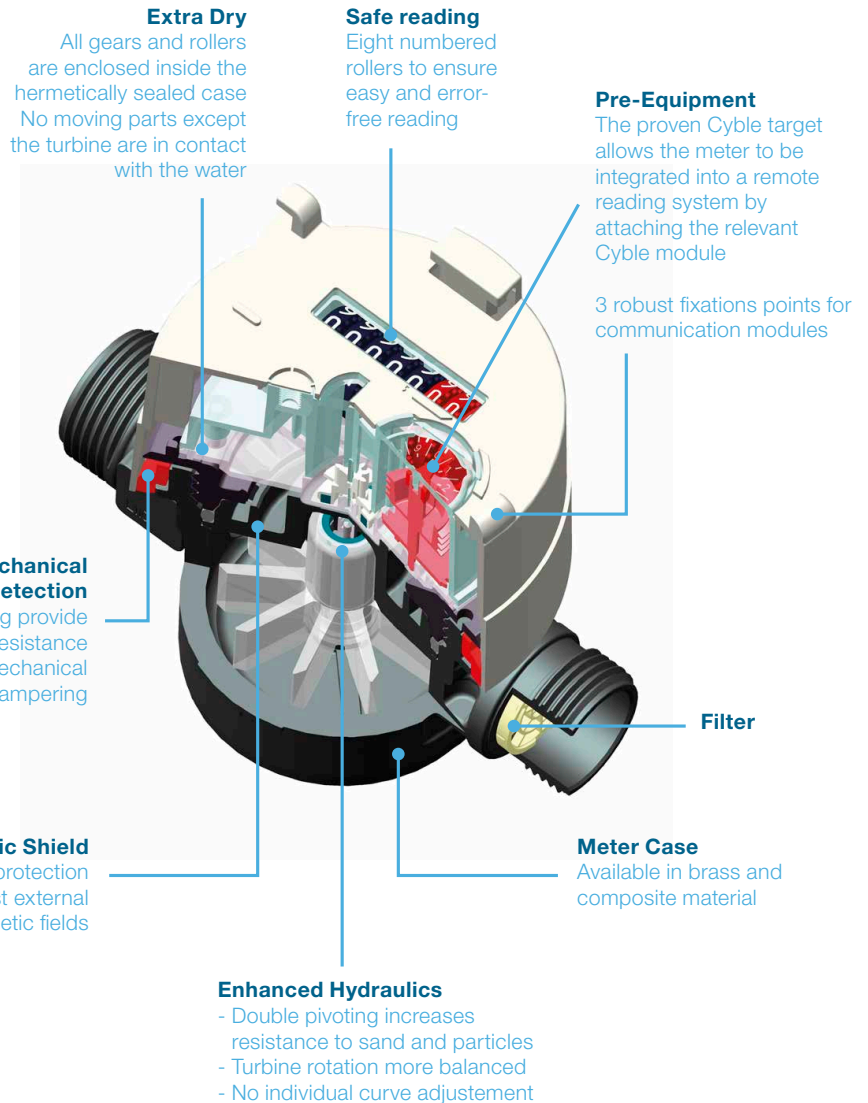
Unimag+ is composed of two main sections: the hydraulic part that allows the measurement of the water flow and the register that totalizes and displays the measured water volume.

Transmission between the two parts is achieved by magnetic coupling, without any mechanic connection between the wet and the dry parts.



Brass Case

- Compliant with DIN normative for low lead brass (DIN 50930-6:2001-08).
- Material traceability.



Composite Case

KEY ADVANTAGES OF COMPOSITE MATERIAL

- » Lighter (30% less of brass) and Ergonomic
- » More suitable to be used with potable water (Lead free)
- » Not affected by corrosion (dezincification immunity)
- » No value for theft

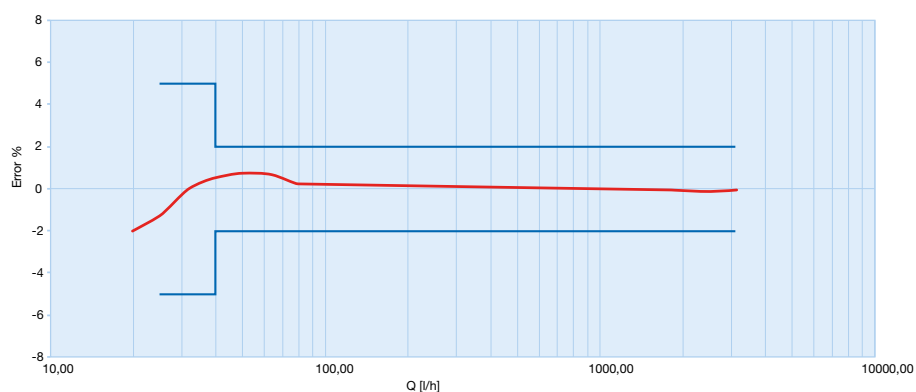
MATERIAL CHARACTERISTICS

- » Polymer fiber glass reinforced
- » High resistance to chemicals
- » High dimensional stability to temperature
- » Robustness to handling and installation

Technical characteristics

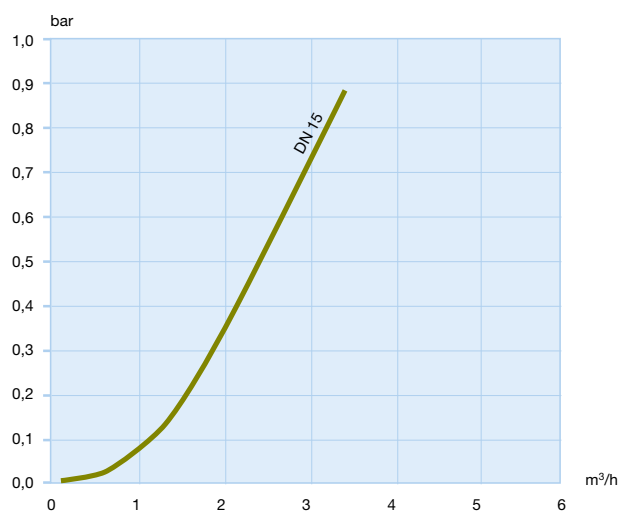
Nominal diameter (DN)		mm inches	Cold Water		Warm Water	
			15 ½"	15 ½"	15 ½"	15 ½"
MID approval			LNE certificate pending			
Water Temperature Range	(T)	°C	T30 - T50		T90	
MID Metrology class (horizontal)	(Q3/Q1)		R63	R100	R63	R100
Permanent Flow Rate	(Q3)	m³/h	1.6	2.5	1.6	2.5
Overload Flow Rate	(Q4)	m³/h	2.0	3.125	2.0	3.125
Minimum Flow Rate	(Q1)	L/h	25	25	25	25
Transitional Flow Rate	(Q2)	L/h	40	40	40	40
Starting Flow Rate		L/h	< 8			
MID Metrology class (other positions)			R40V	R63V - R50	R40	R63V - R50
Max Pressure Loss Class at Q3		bar	0.25	0.63	0.25	0.63
Maximum Admissible Pressure	MAP		16			
Flow Sensitivity Class U0/D0			U0/D0			
Indicating Range		m³/h	99999.999			
Minimum Scale Interval	(I)		0.05			
Mechanical Environment Class M1			Class B/O			
Climatic Environment	(T)	°C	-10/+70			
Pre-equipment for communication			Itron Full Set of Communication Devices			

TYPICAL ACCURACY CURVE Q3=2,5 m³/h - R100



Unimag+ Cold water version

HEAD LOSS

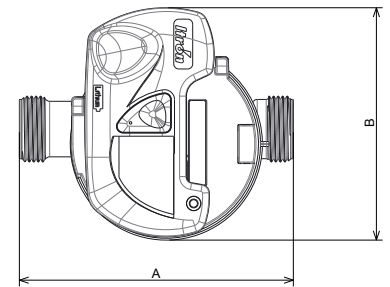
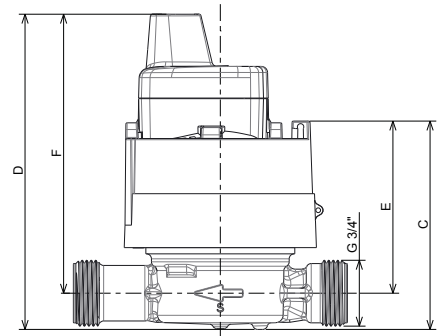


Unimag+ Warm water version

Dimensions

Nominal diameter (DN)	mm	15
Meter Thread		G 3/4"
A	mm	80 - 100 - 105 - 110 - 115*
B	mm	93
C	mm	84
D	mm	127
E	mm	69
F	mm	112

* For other lengths, contact your local Itron representative



COMMUNICATION

The Unimag+ is ready to be equipped with the proven Cyble technology, allowing to mount Cyble modules at any time in field, enabling instantaneously the remote communication function.

This opens the meters up to a large range of advanced and reliable AMR systems:

- » Radio walk-by systems
- » Radio fixed data collection systems
- » M-Bus wire systems
- » Any other system based on universal pulse outputs



Cyble RF (wireless, radio frequency)



Cyble M-Bus



Cyble sensor (Pulse output)



Unimag+ Composite cold water equipped with EverBlu cyble

ACCESSORIES

- » Brass connection set
- » Liner extensions
- » Non-return valve
- » Connection plastic seal



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