



# Unimag+

The domestic single jet

Unimag+ is an innovative 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 blockage
  - Low starting flow
- » Suitable for all installations and use:
  - Compact, short length
  - Cold and hot water
  - Brass body
- » 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 register parts are in contact with the water flow.

## Metrological Performance

The meter exceeds the MID accuracy Ratio 100 in horizontal position, and keeps R63 in 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 over time. With more error curve stability, Unimag+ is able to count flow rates below 8 l/h, thanks to frictionless materials used for bearings and contacts.
- » The body is available in brass material. 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 magnets. Additional magnetic shielding is available as option.
- » 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 99,999,999 m<sup>3</sup>

## Compliance with Standards

- » Metrology, approved according to:
  - MID - 2014/32/EU
  - ISO 4064
  - EN 14154
- » Materials
  - Unimag+ use certified materials specific for contact with potable water (ACS-FRA, KTW-DE)
  - All meter materials are compliant with RoHS normative.
- » 100 percent manufactured in the EEC
  - ISO 9001
  - ISO 14001
  - MID H1

**PRODUCT CHARACTERISTICS**

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

The transmission between the two parts is achieved by magnetic coupling, without any mechanical connection between wet and dry parts.



**Brass Case**

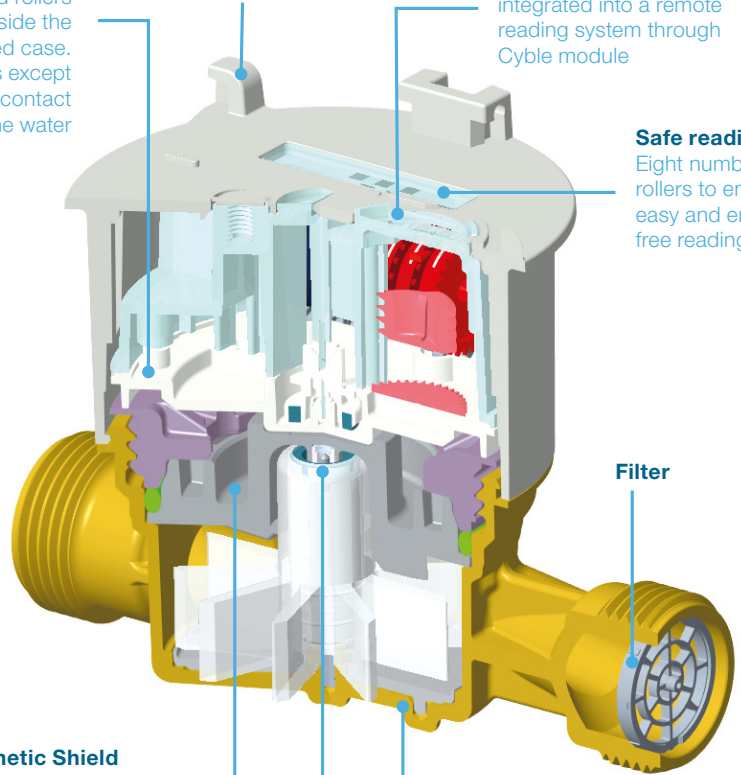
- Compliant with DIN normative for low lead brass (DIN50930-6:2013-10).
- Material traceability.

**Extra Dry**  
All gears and rollers are enclosed inside the hermetically sealed case. No moving parts except the turbine are in contact with the water

**Pre-Equipment**  
Three robust fastening points for communication modules

**Pre-Equipment**  
The proven Cyble target allows the meter to be integrated into a remote reading system through Cyble module

**Safe reading**  
Eight numbered rollers to ensure easy and error-free reading



**Magnetic Shield**  
Enhanced protection against external magnetic fields as an option

**Enhanced Hydraulics**  
- Double pivoting increases resistance to sand and particles  
- Turbine rotation more balanced  
- No individual curve adjustment

**Filter**

**Meter Case**  
Brass material

**COMMUNICATION**

The Unimag+ is ready to be equipped with the proven Cyble technology, allowing it 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



Unimag+ cold water equipped with Cyble 5



Cyble RF (wireless, radio frequency)



Cyble M-Bus



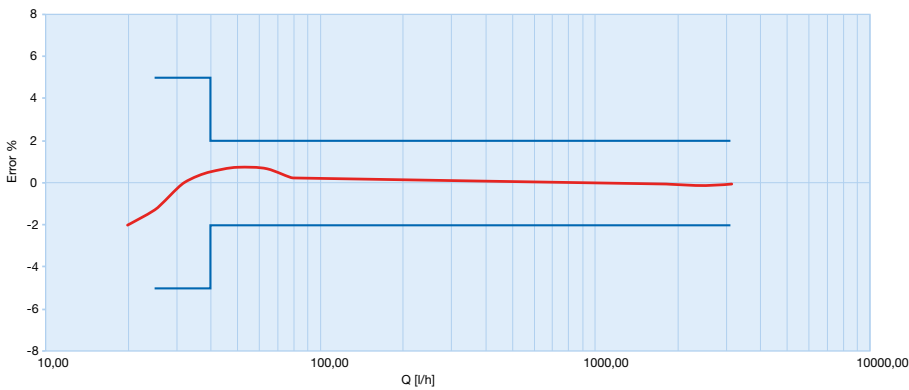
Cyble sensor (pulse output)

### Technical characteristics

Nominal diameter (DN)		mm	15				20	
MID approval			LNE - 33564					
Water Temperature Range	(T)	°C	T30 - T50	T30/90 - T90	T30 - T50	T30/90 - T90	T30 - T50	T30/90 - T90
MID Metrology class (horizontal)	(Q3/Q1)		80	63	125	100	125	100
MID Metrologica Ratio (other positions)*			40*	40*	63	63	63	63
Permanent Flow Rate	(Q3)	m³/h	1.6	1.6	2.5	2.5	4	4
Overload Flow Rate	(Q4)	m³/h	2	2	3.125	3.125	5	5
Minimum Flow Rate	(Q1)	L/h	20	25.40	20	25	32	40
Transitional Flow Rate	(Q2)	L/h	32	40.63	32	40	51.20	64
Starting Flow Rate		L/h	<8				<11	
Max Pressure Loss Class at Q3		bar	0.25	0.25	0.63	0.63	0.63	0.63
Maximum Admissible Pressure	MAP	bar	16					
Indicating Range		m³/h	99999.999					
Minimum Scale Interval		L	0.05					
Mechanical Environment Class			M1 / B**					
Climatic Environment		°C	-25°C.... +70°C					
Flow Sensitivity Class U0/D0			U0/D0					
Pre-equipment for communication			Itron Full Set of Communication Devices					

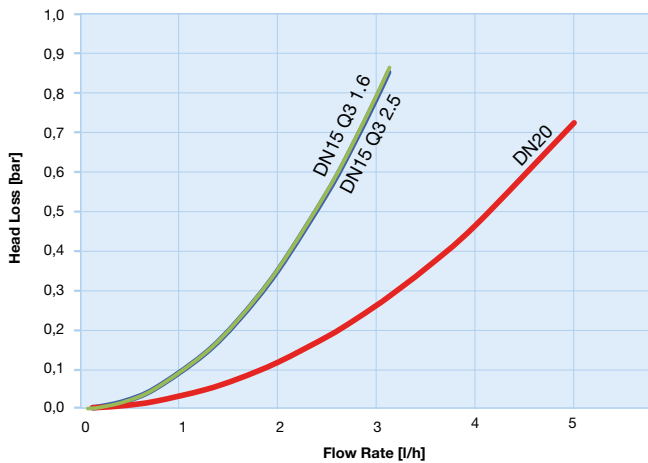
\*According to ISO4046:2017 | \*\*B according to EN14154-1:2005+A2:2011

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



Unimag+ Cold water version

### HEAD LOSS



Unimag+ Warm water version

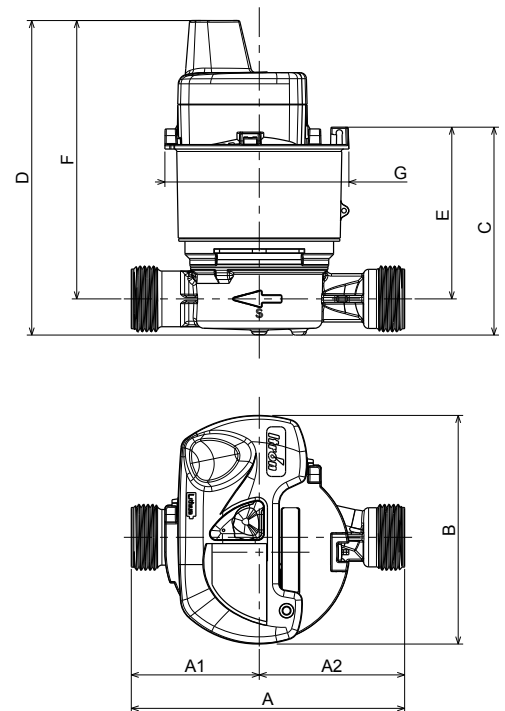
## Dimensions

Nominal diameter (DN)	mm	15 Brass									20 Brass	
		Meter Thread	G 3/4"	WTZ-G 3/4"	G 3/4"	G 3/4"-M22	G 3/4"	G 3/4"	G 3/4" - G 3/4" G 7/8" - 3/4"	G 3/4"	G1"	G 1"
A	mm	80	83	85	100	105	110	115	130	130	115	130
A1	mm	37	40	42	49	54	59	64	79	74.3	59.3	74.3
A2	mm	43	43	43	51	51	51	51	51	55.7	55.7	55.7
B	mm	92									92	
C	mm	84									84	
D	mm	127									127	
E	mm	69									69	
F	mm	112									112	
G	mm	74									74	

\* For other lengths, contact your local Itron representative

## ACCESSORIES

- » Brass connection set
- » Non-return valve



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