



Unimag Cyble™

Reliable metering for advanced AMR

Unimag Cyble is a versatile water meter for residential use which can be easily transformed anytime into an advanced communicating device thanks to the application of the whole range of Itron Cyble communicating modules.

FEATURES AND BENEFITS

- » World-Class Single-Jet Meter, Extra-Dry
 - Cold or Warm Water
 - Compact and Easy to Install
 - EEC Class BH-A
- » Pre-equipped for Communication

The Technology

The meter combines the turbine single-jet technology with the proven reliability of the extra-dry register. No parts of the register are in contact with the water flow thanks to the high performance magnetic transmission.

Communication

The Unimag Cyble is always pre-equipped with the proven Cyble technology, making it possible to mount plug-and-play Cyble modules at any time.

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 (walk-by or fixed network)

- » or any other system based on universal pulse outputs

Metrological Performance

The meter exceeds the EEC Class B approval requirements when installed within an angle of $\pm 30^\circ$ from the horizontal position, offering class A performances in all other positions.

Reliability

Extensively proven Unimag Cyble hydraulics have already been used in more than 10 millions of meters installed in more than 25 countries!

Main features

- » Enhanced design and technologies to combine high performance with long-term reliability
- » Frictionless high-end technical materials for the hydraulics and register pivot
- » Robustly designed, pressurized parts able to pass the strongest resistance tests (PN 16) in both static and dynamic conditions
- » Shock-resistant material for register and meter closure. Patented fastenings protection to ensure easy interface with the Cyble modules in any conditions
- » Automated assembly and monitoring process to ensure constant high quality level over the whole production

- » 100% manufactured in the EEC in strict compliance with most severe quality and environmental standards

Easy reading

- » 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
- » Register with hermetically sealed enclosure in order to keep all inside parts perfectly clean and protected throughout the entire lifetime of the product

Compliance with Standards

- » Metrology
Approved according EEC Directives 75/33 and 79/830, ISO 4064:1993
- » Materials
Highly engineered and certified (ACS, KTW,...) materials specific for contact with potable water
- » Manufacturing
ISO 9001:2000
ISO 14001: 2004

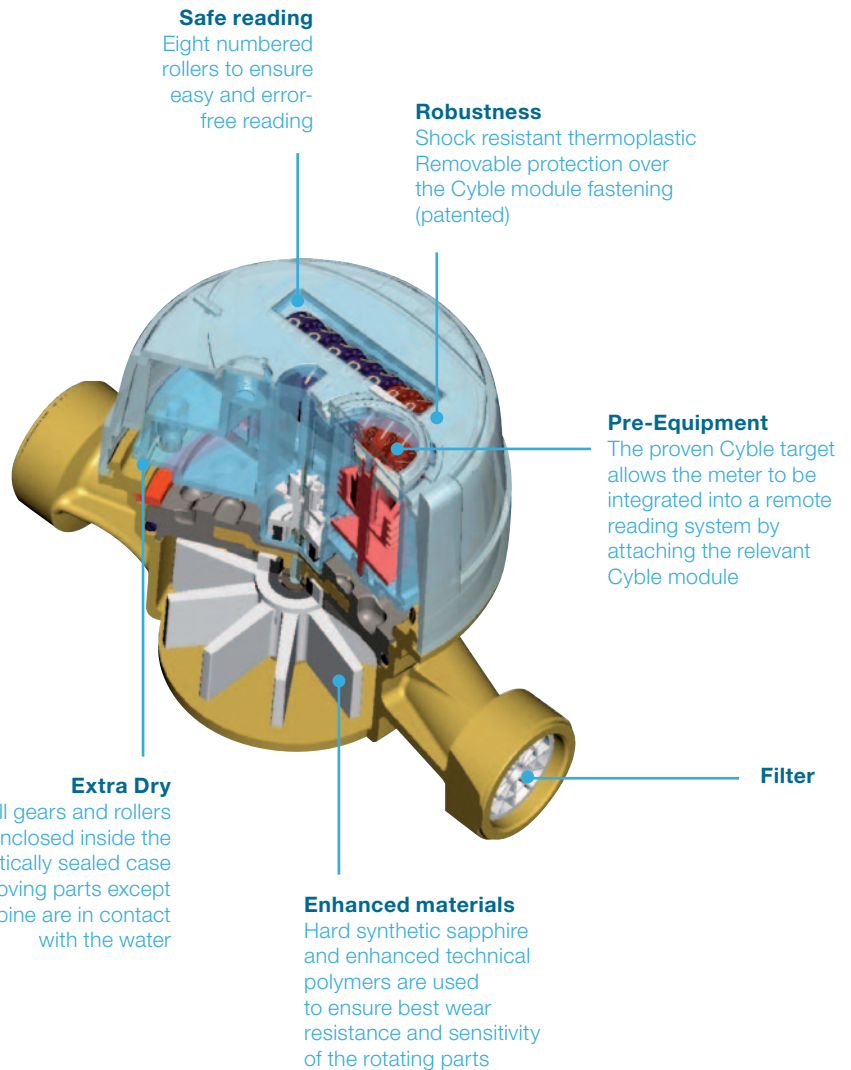
FEATURES AND BENEFITS

Unimag Cyble 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.



Warm water version



Potentiality of the Cyble AMR interface

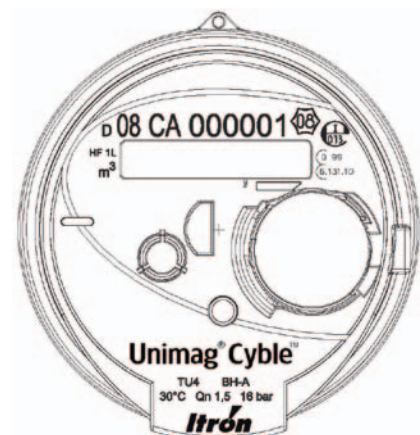
- Optimised reading and billing without the necessity of accessing the meter
- Leak detection
- Study of consumer's habits
- Reverse flow detection
- Fraud detection

KEY ADVANTAGES OF THE CYBLE TECHNOLOGY

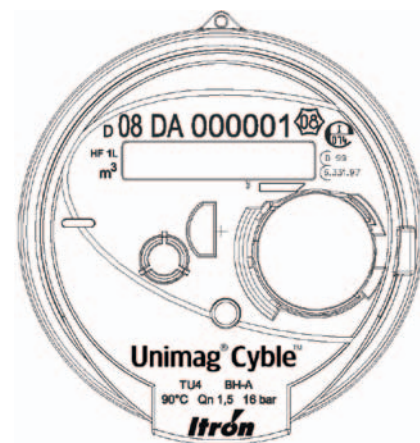
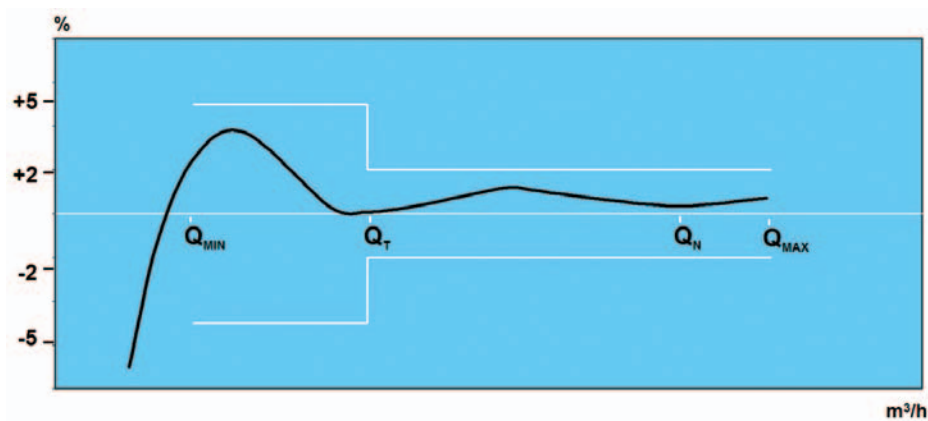
- » No need for additional investments on the meter itself to implement remote reading
- » Itron standard meter interface, irrespective of the meter technology and used on all Itron water meters from DN 15 to DN 500
- » Complete system portfolio from the radio module to the meter reading software and handheld terminals
- » Outstanding reliability proven by several million modules installed worldwide
- » Electronic detection (no wear or bounce)
- » Back flow management
- » Not sensitive to magnetic fields
- » Perfect index correlation
- » For further info, refer to the specific leaflet

Metrological Characteristics

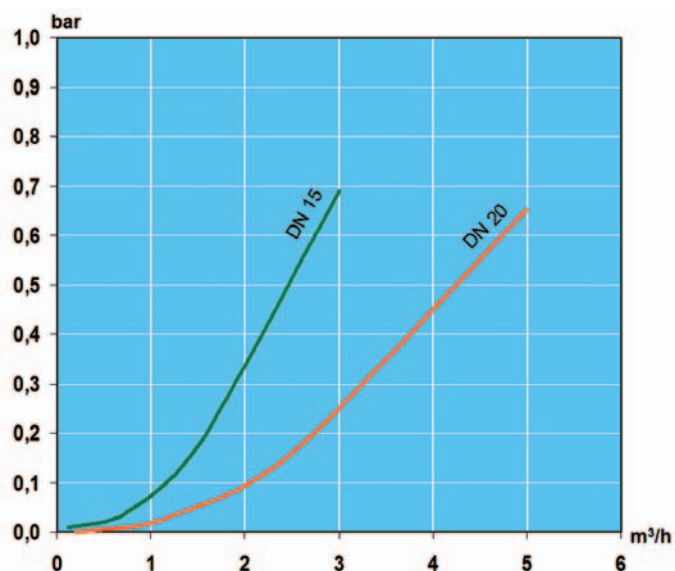
Nominal diameter (DN)	mm inches	15 ½"	20 ¾"
E.E.C. metrology class		B horizontal - A all other positions	
E.E.C. approval		D 99 6.131.10 (cold water) - D 99 6.331.97 (warm water)	
Maximum admissible temperature	°C	30° (90° for warm water)	
Starting flow rate	L/h	8.5	12
Minimum flow rate	Q _{min} L/h	30	50
Transitional flow rate	Q _t L/h	120	200
Nominal flow rate	Q _n L/h	1500	2500
Maximum flow rate	Q _{max} L/h	3000	5000
Loss head at Q _{max}	bar	0.70	0.65
Maximum admissible pressure	bar	16	
Testing pressure	bar	25	
Indication range	m³	99999.999	
Minimum scale interval	L	0.05	
Communication pre-equipment		Cyble Technology	



TYPICAL ACCURACY CURVE



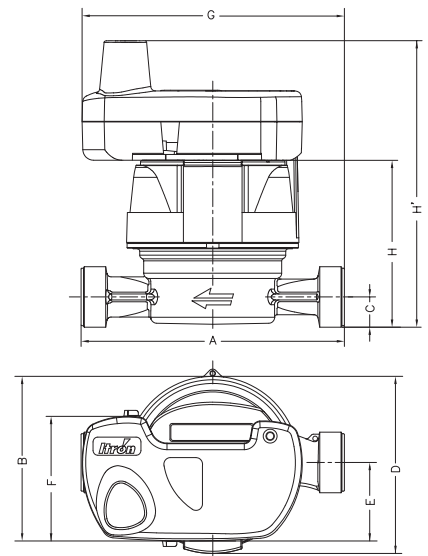
HEAD LOSS CURVE



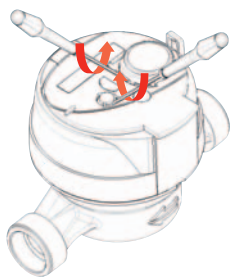
Dimensions

Nominal diameter (DN)	mm	15	20
Meter Thread		G 3/4"	G 1"
A	mm	110	130
B	mm		69
C	mm	13.2	16.6
D			74
E			33
F			52
G		109.6	119.6
H	mm	69	73.2
H'	mm	119.5	123.7

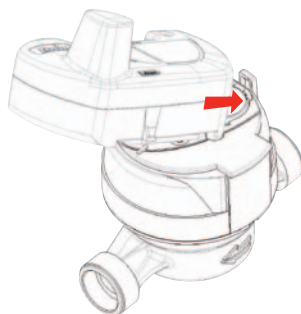
Others lengths available under special request.



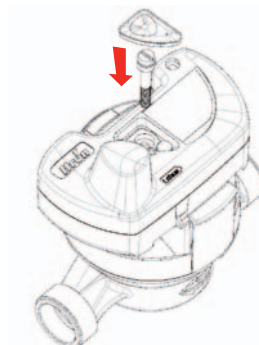
CYBLE MODULE INSTALLATION



- » 1. Remove the 2 protections with a small screwdriver



- » 2. Clip the module on the meter



- » 3. Fix the module with the screw and insert the seal supplied



Cyble RF (wireless, radio frequency)



Cyble sensor (Pulse output)



Cyble M-Bus



Our company is the world's leading provider of smart metering, data collection and utility software systems, with over 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water.

To realize your smarter energy and water future, start here: www.itron.com

For more information, contact your local sales representative or agency:

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