

Multimag TM II

Multijet Residential Meter - DN15 & DN20

Commercial and Industrial Applications - DN25 to DN50



> Benefits

- Reliability
- Robustness
- Different versions
- Operate in several conditions

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.

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, B and C in horizontal position according to ISO 4064 (1999).

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

Approvals

Comply with different international standards, such as.

- > ABNT NM212 (South America)
- > EEC 75/33 (Europe) (just for DN15 / 20)
- > 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)

Registers

The Multimag TMII meters can be equipped with different registers types.



> Plastic Registers

Excellent cost-benefit with good performance.



> Copper Can Registers

Very robust against frauds, completely hermetical, indicated for severe environmental conditions, and pits subjected where the meters get submerged. Protected against prolonged effects of immersion under pressure (IP68)



> Cyble Versions

Pre-equipped registers (Copper Can Cyble or Plastic Cyble), with Cyble target, ready for installation of Cyble modules, for AMR (Automated Metering Reading)

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

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.



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.

Adaptability

The Multimag Cyble can be equipped with Cyble modules, becoming a remote reading interface.

Benefits & Characteristics:

- > Fast reading and generate bill
- > Leak detection
- > Reverse flow detection
- > Fraud detection
- > Study of customers habits
- > Reliability
- > Immune to magnetic fraud
- > Field tested for over 5 years

> Cyble RF



> Cyble M-Bus



> Cyble Pulse



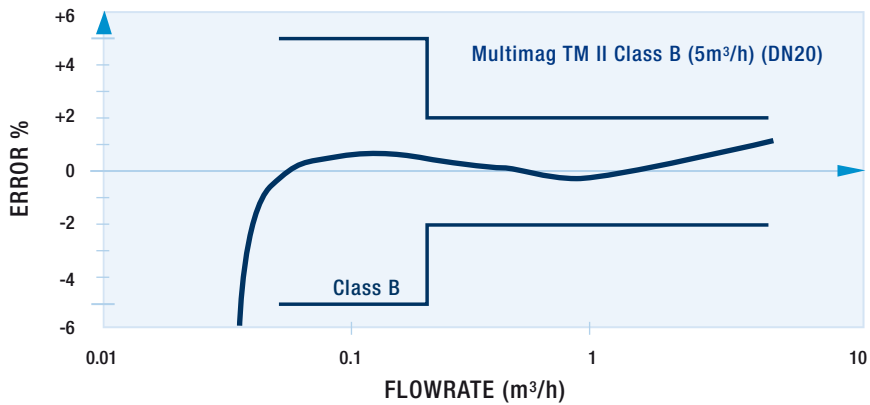
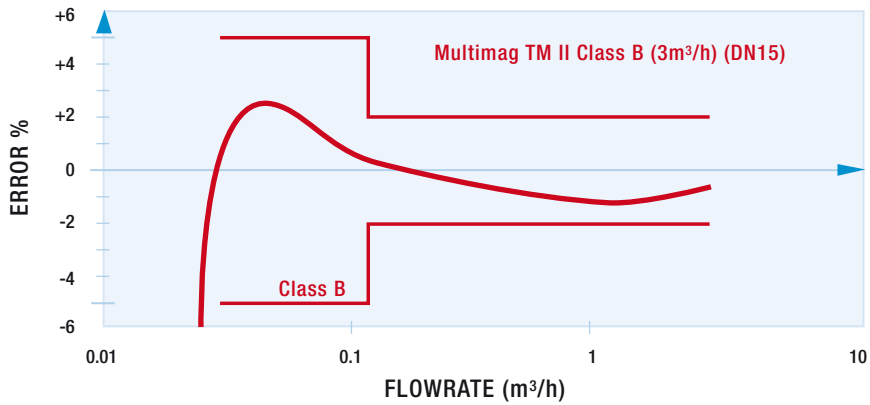
> Handheld for walk-by system



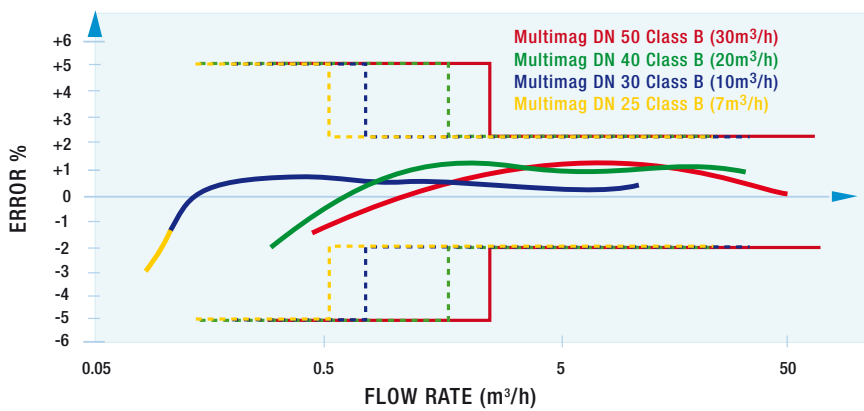
> Radio drive-by system



Typical Curve Multimag Cyble - DN15 & DN20



Typical Curve Multimag Cyble - DN25 to DN50



> Multimag Cyble equipped with Cyble RF



> Commercial and Industrial Multimag TM II meter



Technical Characteristics

Residential

Nominal diameter (DN)	mm	15	20
	pol	1/2"	3/4"
Lenght	mm	165	190
Metrology*	Class	B	B
Typical Start-up	L/h	10	18
Minimum Flow Rate – Qmin	L/h	30	50
Transitional Flow Rate – Qt	L/h	120	200
Nominal Flow Rate – Qn	m ³ /h	1.5	2.5
Maximum Flow Rate – Qmax	m ³ /h	3	5
Maximum temperature	°C		40
Maximum temperature (<1h)	°C		50
Maximum Operating Pressure	bar		16
Head Loss at Qmax	bar		< 1
Maximum Reading	m ³		9.999 or 99.999
Minimum Reading	L		0.02

* Considering horizontal installation.

Commercial and Industrial

Nominal diameter (DN)	mm	25	25	30	40	50 flanged
	pol	1"	1"	1 1/4"	1 1/2"	2"

Metrological Performance

Starting Flow Rate	l/h		25		70	90
Minimum Scale Internal	l		0.05			0.5
Indicating Range	m ³		9.999			99.999
Maximum Head Loss at Qmax	bar	0.42	0.45	0.45	0.7	0.9
Maximum Admissible Temperature	°C			0 to 30		
Maximum Admissible Pressure	bar			10		

EEC Approval Values

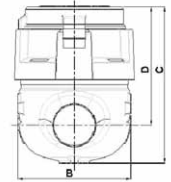
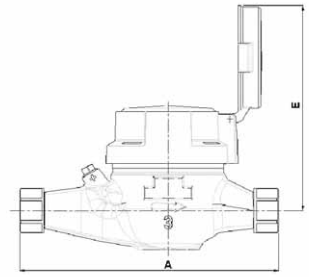
Maximum Flow Rate - Qmax	m ³ /h	7	10	10	20	30
Nominal or Permanent Flow Rate - Qt	m ³ /h	3.5	5	5	10	15
Transitional Flow Rate - Qt	m ³ /h	0.28	0.4	0.4	0.8	1.2
Minimum Flow Rate - Qt	m ³ /h	0.07	0.1	0.1	0.2	0.45
Pressure Loss Group at Qmax	bar	0.6			1	

Dimensions

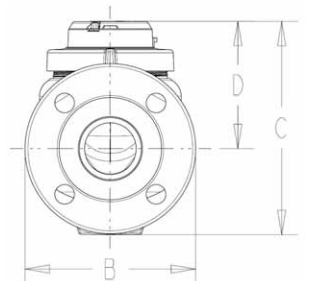
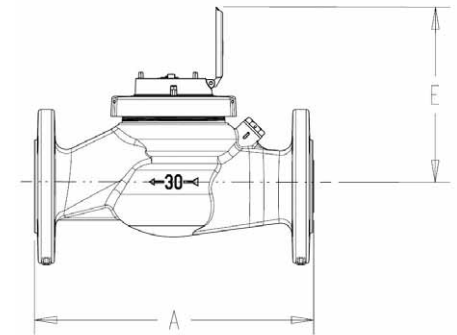
Nominal diameter (DN)	mm	15**	20**	25	30	40	50	
	pol	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
Weight	Kg	1	1.1	1.19	2.40	2.40	4.65	11.85
Threads	mm	G 3/4"	G 3/4"	G 1"	G 1 1/4"	G 1 1/2"	G 2"	Flange
A	mm	165 / 170	190	190	260	260	300	270
B	mm	80	80	80	98	98	130	165
C	mm	112	112	112	110	110	140	200
D	mm	88	88	88	70	70	100	120
E	mm	147	147	147	140	140	170	190
Entry hole diameter	mm	12.7	12.7	23	25	25	40	50

**Considering the Multimag Cyble Version

> Residential Dimensions



> Commercial and Industrial Dimensions



Itron Noida - Head Office

C - 7, Sector 3, Noida - 201 301
Uttar Pradesh
Phone: + 91 120 465 6666
Fax: + 91 120 465 6677

Itron Dehradun - Works

Khasra No. 3903/3904, Majri Grant,
Lal Tappad Industrial Area,
Haridwar Dehradun Highway, Lal Tappad,
District - Dehradun
Phone: + 91 0135-2499083

Itron Hyderabad

716, 7th Floor, Swapnalok Complex
SD Road, Near Parklane, Secunderabad
Hyderabad - 500 003, Andhra Pradesh
Phone: + 91 40 2781 4616
Fax: + 91 40 6632 9522

Itron Bangalore

F-1, 1st Floor, No. 53/5, Jai Santoshimata
Complex, Opp Seshadripuram Law College
1st Main Road, Seshadripuram
Bangalore - 560020, Karnataka
Phone: + 91 020-23563270
Mobile: + 91 09845218310

Itron Vadodara

105 - 106, Opal Square,
Behind Express Hotel,
RC Dutt Road, Alkapuri
Vadodara - 390 005, Gujarat
telefax: + 91 265 235 0024

Itron Kolkata

New Alipore Market Complex,
Unit No. 8, 5th Floor, Phase - 1,
Block - M
New Alipore, Kolkatta - 700 053
Phone: + 91 033 24017419
Fax: + 91 33 2401 7420

Itron Mumbai

2131 - 2132, D-Wing,
Oberoi Garden Estates,
CTS No 47, Village Chandivili, Sakinaka,
Andheri (E)
Mumbai - 400 072, Maharashtra
Phone: + 91 22 4015 2217 / 18
Fax: + 91 22 4026 0914