



## SU

ULTRASONIC  
TECHNOLOGY



**R250**  
**MODELLI DN (mm – inches )**  
**15-1/2" – 20-3/4" – 25-1"**  
**30-1 1/4" – 40-1 1/2" – 50-2"**

- ❖ Ultrasonic meter with static measuring technology with no moving parts suitable for domestic, commercial indoor and/or outdoor applications.
- ❖ Mod. **SU** with sizes from DN 15 to DN 50 temperature class T50, measuring range up to R500 in all positions - Other R values available on request (max R500). IP68 degree of protection
- ❖ Brass body with threaded connections for improved durability,
- ❖ Flow measurement: bi-directional
- ❖ Different options of volume measurement: net, normal flow only, alternating normal/reverse
- ❖ Battery life: >13 years, under standard conditions of use, it can vary depending on radio protocol used
- ❖ Large LCD display showing totalised volume, and other data such as instantaneous flow rate, battery indicator, alarms, flow direction, water temperature, test display.
- ❖ Integrated wireless communication: available protocols LoraWAN/ W-Mbus OMS with automatic switch and NB-IoT
- ❖ NFC module on request and datalogger function
- ❖ Optical port for local communication with the instrument
- ❖ **U0-D0**: upstream and downstream the meter does not require straight pipe sections
- ❖ **D.M 174 of 6/4/2004** : products certified for use with drinking water
- ❖ **MID** approval in accordance with **OIML R49** and **ISO 4064** in accordance with the current directive (module B+D)
- ❖ Suitable for horizontal and vertical installations

**Modello SU**  
**classe di temp. T50**  
**DN15/20/25/32/40**

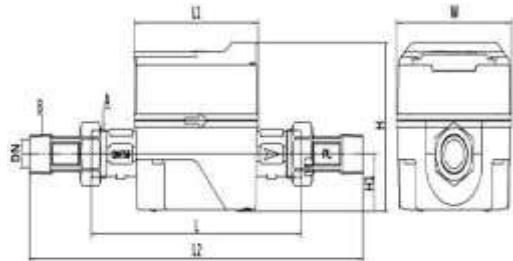
**R400**

**\*Other R values**  
**available on request**

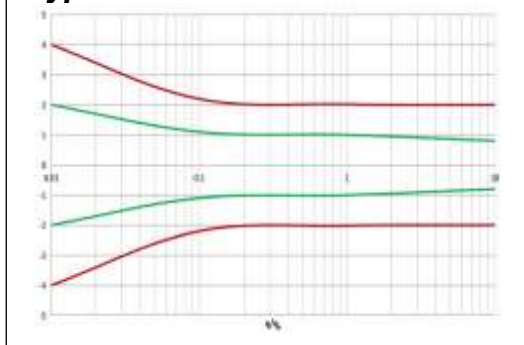
**All models available**  
**with separate radio**  
**module on request**

Technical data - DN in mm	15	20	25	32	40	50
Threads	G 3/4"	G1"	G 1" 1/4	G 1" 1/2	G 2"	G 2.1/2"
Permanent flow rate Q <sub>3</sub> (m <sup>3</sup> /h)	2.5	4.4	6.3	10	16	25
Minimum flow rate Q <sub>1</sub> [MPE ±5%] (m <sup>3</sup> /h)	0,006	0,016	0,015	0,025	0,04	0.062
Transitional flow rate Q <sub>2</sub> [MPE ±2%] (m <sup>3</sup> /h)	0,096	0,0256	0,025	0,04	0,064	0.1
Overload flow rate Q <sub>4</sub> (m <sup>3</sup> /h)	3.125	5.0	7.875	12,5	20	31,25
Measuring range R *	400	400	400	400	400	400
Starting flow (m <sup>3</sup> /h)	0,002	0,004	0,005	0,009	0,011	0,011
Max. operating pressure permissible MAP (bar)	16	16	16	16	16	16
Electromagnetic Class	E1					
Accuracy class	II					
Environmental operating conditions	-25 °C ... +55 °C					
Pressure loss ΔP (bar)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Maximum normal flow readout (m <sup>3</sup> )	99999.99999	99999.99999	99999.99999	99999.99999	99999.99999	99999.99999
Minimum reading unit (l)	1	1	1	1	1	1
L (mm) **	110	190	260	260	300	300 Filettato/200 flangiato
L1 (mm)	97	97	97	97	97	97
L2 (mm)	204	294	380	380	428	428
H) (mm)	91	91	91	128	139	139
H1 (mm)	31	28	25	29	36	36
W (mm)	90	90	90	90	90	90

## Overall dimensions



## Typical error curve



## LoRaWAN and Lora protocol specifications



	Fixed network	Walk-by/Drive-by
Network type	Freq. 868 Mhz prot. LoRaWAN	Freq. 868 Mhz LoRa prot. with proprietary protocol
Data transmitted	Sensor ID, consumption data, hardware status, battery level, alarms: mechanical fraud (removal), reverse flow, battery low, temperature loss on site, on request	
Edit configuration data	Possible from the fixed network remotely or from radio terminal	Possible via radio terminal
Flexibility	Automatically switches between the 2 settings according to programming	
Activation	OTAA-ABP	/
Transmission interval	1 single reading on a daily basis and 2 daily history transmissions	Configurable by day and time of week
Transmission distance	Up to 14 km in optimal environmental conditions	Up to 1km in open field or 100 linear metres for manhole installation in optimal conditions

## Technical specifications Wireless-Mbus OMS protocol



	Walk-by/Drive-by
Network type	Freq. 868 Mhz W-MBus OMS certified
Data transmitted	Sensor ID, consumption data, hardware status, battery level, alarms: mechanical fraud (removal), reverse flow, low battery, leakage, on-site temperature on request
Edit configuration data	Possible via radio terminal
Transmission distance	Up to 500 metres in optimal conditions