

# WATER METER/ ULTRA-SONIC

**JANZ** LEADING THE  
WATER FUTURE



# JU500

## ULTRA-SONIC METER FOR POTABLE WATER

DN50 to DN150  
R500  
IP68

Battery:



10 years lifetime

MID approval  
2014/32/CE

**High sensitivity to low flows**, accurate measurement to monitor efficiency in large potable water networks;

**Clean pipe**, no internal moving parts. Without maintenance needs. Performance consistency during his lifetime;

**IP68 LCD display**, 9 measurement digits and several status indicators;

**Cast iron body** with epoxy coating, adequate for harsh environments;

**Several communication interfaces available:**

» **wireless:** Sigfox and NFC. LoRa and GPRS soon.

» **wired:** Pulse output "open collector" (standard), RS485 (optional)

# WATER METERS/ ULTRA-SONIC



## JANZ JU500 product line offers:

- ✓ An accurate and reliable measurement ideal to control efficiency in large potable water networks.
- ✓ His robust design along with the absence of internal moving parts makes JU500 the perfect equipment to resist the most challenging working conditions maintaining high standards of accuracy measurement and low maintenance costs during his lifetime.
- ✓ JU500 can be equipped with state of the art communication interfaces easily allowing utilities to create smart control systems for their water distribution networks.
- ✓ JU500's display shows total reverse flow volume and presents different error alarms.

## TECHNICAL CHARACTERISTICS:

**Maximum Admissible Pressure:** MAP 16

**Temperature Class:** T50 °C

**Accuracy class:** ISO 4064 rev.2005, accuracy class 2

**Pressure Low-Class:** ΔP10

**Orientation Limitation:** Vertical/Horizontal

**Flow Profile Sensivity Class:** U0D0

**Display:** 9 digits LCD Display indicating total volume, instantaneous flow and alarms

**Connexion Type:** ISO Flanges

**Protection and Classes:** IP68, Electromagnetic class E1, Environmental Class C (fixed meters outdoor), Mechanical Class M1 (according to OIML R49/1)

**Battery Power:** Lithium battery with 10 years life expectancy

**Body:** Cast iron

**Ec Type Examination:** TCM 142/10 - 4738 (MID), ISO 4064:2014 and Directive 2004/22/EC (MID), EN14154:2005+A1:2007.

**According to:** OIML R49:2013; ISO 4064:2014; EN 14154:2005+A2:2011; ACS Approval, materials in contact with water.

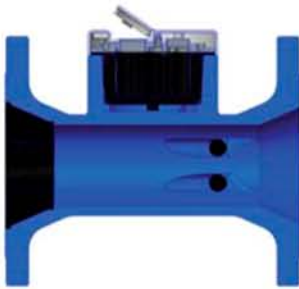
# WATER METERS/ ULTRA-SONIC



## TECHNOLOGY AND COMMUNICATION INTERFACES

JANZ Ultra-sonic meter JU500 has four (4) transducers inside the pipe placed face-to-face in each one of the two parallel channels of the equipment.

A high accuracy measurement is achieved through a channel strenghten. Additionally, to avoid flow disturbances, a flow stabilizer is placed near the sensor. That allows a high measurement Ratio (R500) and a proper utilization of the equipment both upstream and downstream applications (U0D0).



JU500 is equipped with a pulse connector "open collector" type (M12 5 pins). It can optionally be equipped with a RS485 output.

For wireless communication systems JU500 can be equipped with the following technologies: Sigfox (available), LoRa and GPRS soon.

Lts/Pulse:  
Standard » 1 Pulse = 100 lts  
Configurable » 0,001L to 100 lts

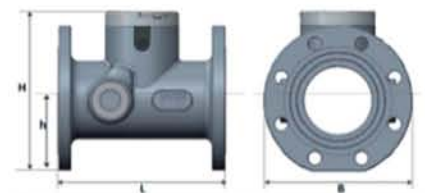
## TECHNICAL DATA:

DN		50	65	80	100	125	150
Ratio Q3/Q1	(R)	500	500	500	500	500	500
Permanent Flowrate	Q3 (m <sup>3</sup> /h)	40	63	63	100	160	250
Overload Flowrate	Q4 (m <sup>3</sup> /h)	50	80	80	125	200	313
Transitional Flowrate	Q2 (dm <sup>3</sup> /h)	0,13	0,20	0,20	0,32	0,50	0,80
Minimum Flowrate	Q1 (dm <sup>3</sup> /h)	0,08	0,125	0,125	0,20	0,31	0,50
Starting Flowrate*	(L/h)	20	32	32	50	78	125

\* configurable: 1/4 of minimum flowrate

## DIMENSIONS:

NOMINAL DIAMETER	DN		50	65	80	100	125	150
Length	L1	(mm)	200	200	225	250	250	300
Width	B	(mm)	165	185	200	220	250	285
Height	H2	(mm)	182,5	198,5	215,5	233,5	255	272
Height	H3	(mm)	77	85	95	103	115	130
Weight		Kg	10	12	13	15	18	26



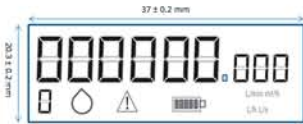
CERTIFICATE N.95/CEP.341

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## LCD DISPLAY



000000000 9 digits on the LCD display show alternately the total positive volume, the instantaneous flowrate and the total reverse flow.



This digit indicates the following alarms:  
1 GPS error ; 2 LCD error ; 3 NFC error ;  
4 EEPROM memory error ; 5 RTC error ; 6 Superior transducers error ;  
Inferior transducers error



Indicates water flowing through the meter



Indicates problems with the equipment

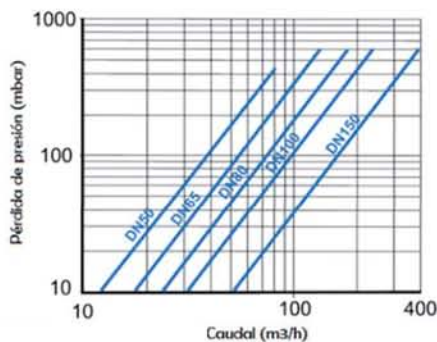


Indicates actual battery level

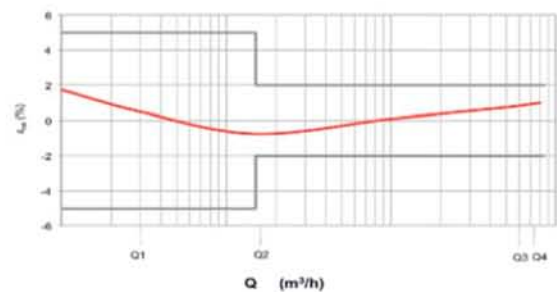


Indicates the measurement unit

## PRESSURE DROP DIAGRAM



## TYPICAL CURVE ERROR



## OPTIONS



Extender battery device that enlarges battery lifetime plus 10 years.

Easy to adapt and compatible with all meters with pulse output and M12 interface.



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