

WATER METER eREGISTER



JV400e



JV600e

WATER METER FOR DRINKING WATER WITH ELECTRONIC REGISTER MULTIPROTOCOL



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WATER METER eREGISTER



JV400e

DN15

$Q_3=2,5 \text{ m}^3/\text{h}$

Up to R800

T50

MAP 16

Electronic register

IoT Ready

WATER METER WITH ELECTRONIC REGISTER
MULTIPROTOCOL



The accuracy of the concentric measurement allied to a high-performance electronic register.

Secure data: four circular buffers for a high data storage capacity.

Alarms on Demand: Allows the reception of any alarm in real time.

Effective protection against external influences.

WATER METER eREGISTER



JV400e offers:

- Water meter with electronic register. Multiprotocol, able to work with wM-Bus and LoRaWAN mode.
- An extended curve error accuracy. Exactness from flowrates under the minimum standardized up to the maximum flowrate.
- Materials consciously selected to be resistant to corrosion and hydrolysis.
- Shock resistant thermoplastic components that can be safely submitted to temperatures up to 50 °C.

OPERATIONAL FEATURES:

Maximum Admissible Pressure (bar): MAP 10 | MAP 16

Temperature Class (°C): T30 | T50

Ratio Q_3/Q_1 : up to R800

Pressure Loss-Class: ΔP 63

Installation Position: Any position

Flow Profile Sensitivity Classes: U0/D0

Indicating range (m^3): LCD 7 segments, 6 digits (m^3) with 3 decimals, UV protection

Resolution of the indicating device (L): 0,001 in test mode

Body: Brass

Certification:

UE Examination Certificate TCM 142/10 - 4738 in accordance with directive 2014/32 UE, CE, ISO 4064-1: 2014, OIML Recommendation R49: 2006, ACS approval, RoHs, WEE, OMS, LoRaWAN, EMC, RED 2014/53/EU, ETSI and EN14154: 2005 + A2: 2011.

Retention valve incorporated: available

WATER METER eREGISTER

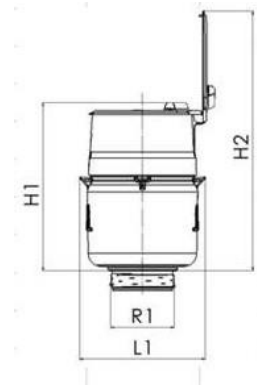


TECHNICAL DATA:

DN		15
Ratio Q_3/Q_1	R	200 - 800
Permanent Flowrate	Q_3 m ³ /h	≤ 2,5
Overload Flowrate	Q_4 m ³ /h	$Q_3 \times 1,25$
Transitional Flowrate	Q_2 m ³ /h	$Q_1 \times 1,5$
Minimum Flowrate	Q_1 m ³ /h	Q_3 / R
Quadrant Indication	m ³	999 999, 999
Verification Division	L	0,001

DIMENSIONS:

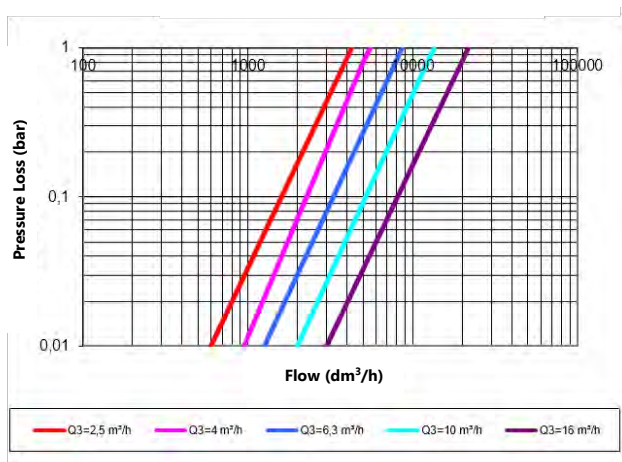
Nominal Diameter	DN	15
Threaded Connections*	R1 "	R1 ⁿ 1/2
Length	L1 mm	94,5
Height	H1 mm	127
Height	H2 mm	196
Weight	kg	0,96



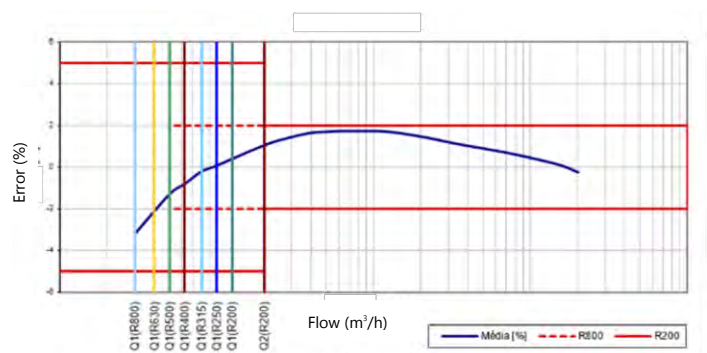
*Other available options

Dimension plan please check our website Janz.pt

HEAD LOSS DIAGRAM



TYPICAL CURVE ERROR



WATER METER eREGISTER



TECNOLOGY:

The magnetic coupling in the **JV400e** was designed to reduce the number of mechanisms and components immersed in water, thus increasing the longevity of the product. This feature also provides effective protection against external influences. Protected against magnetic fraud.

RADIO FEATURES:

Sensor Type: Inductive, bidirectional

Battery Lifetime*: Standard Profile: Up to 13 years

Electric Power: Lithium battery LiSoCl₂ 3.6 V

Protection: IP68

Operating Temperature: -10° C to 55°C

Recommended Warehousing Temperature: -20°C to 60°C

Communication technology: LoRaWAN and wM-Bus

Radio Setup: Automatically after the passage of 10L

*Depending on configuration and environmental conditions

COMMUNICATION MULTI-PROTOCOL FEATURES:

Possibility to configure protocols and alarms for optimized communication.

Model	LoRaWAN	M-Bus wireless
Frequency	868 MHz	868 MHz
Modulation/Transmission Mode	Class A, EU868	C1 default, T1

DISPLAY:

The display is a passive type, 7 segments, with 9 digits and symbol icons. UV protection is provided by the LCD itself.












Display has the following displaying cycle:

- Main view for 60 seconds
- Billing date view for 12 seconds
- Segment test and firmware view for 12 seconds

WATER METER eREGISTER



ICONS FUNCTIONALITIES:

- START INDICATOR 
 - Moves in succession 2 quarters that chase each other:
 - Forward flow = clockwise
 - Backflow = counterclockwise
- Backflow 
 - Is reflected in BACKFLOW alarm
- Leak 
 - Is reflected in LEAKAGE alarm
- Antenna 
 - At every transmission must toggle for 6 times the status of the icon (blinks)
 - Icon status (optional):
 - If the radio scheduler is disabled the icon status is OFF
 - If the radio scheduler is enabled the icon status is:
 - ON if the parameter RADIO_ICON_ON_ENABLED = true
 - OFF if the parameter RADIO_ICON_ON_ENABLED = false
 - NOTE: the parameter RADIO_ICON_ON_ENABLED must be activated by the assistance service
- Reserved for future use 
 - Not used at the moment, always OFF
- Battery  is ON
 - If the calculated life is finishing
 - if the battery measured voltage is LOW. In this case the Error icon must be on
- Calendar  is ON
 - During the billing dates visualizations (1 and 2 are used to define which billing date is shown)
- Error 
 - It is ON when an error appears
- Test 
 - It is ON during verification test

DATALOGGING:

The device has datalogging functionality with different data periodicity and storage timespan. For each period the following data is saved: Current volume, current backflow volume, minimum and maximum flowrate of the period.

Data is stored in 4 circular buffers with the following data periodicity and storage timespan:

DATA PERIOD	STORAGE TIMESPAN
15 minutes	9 days
Hour	37 days
Day	896 days
Month	21 years

When the buffer is full, older data is removed.

WATER METER eREGISTER



ALARMS:

- **Leakage:** a continuous flow has been detected.
- **Overflow:** flow exceeds a given value in a defined time interval.
- **Backflow:** flow in opposite direction above a defined value.
- **Blocked Meter:** the meter does not register flow for a defined time period.
- **Reversed Meter:** constant negative consumption for more than 10 days.
- **Battery Status:** low battery level.
- **Meter Lifetime Expired:** the device can send an alarm for end of lifetime after achieving configured lifetime (programmable up to 15 years).
- **Hardware Error:** microcontroller memory damaged.

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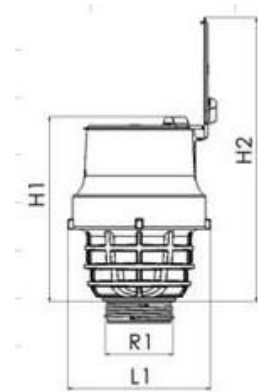


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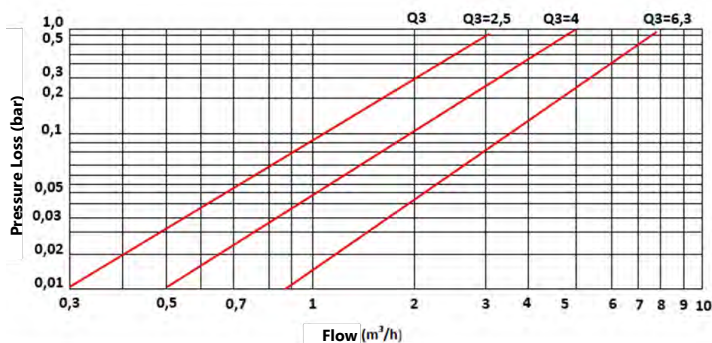
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Height	H1 mm	129
Height	H2 mm	199
Weight	kg	0,85



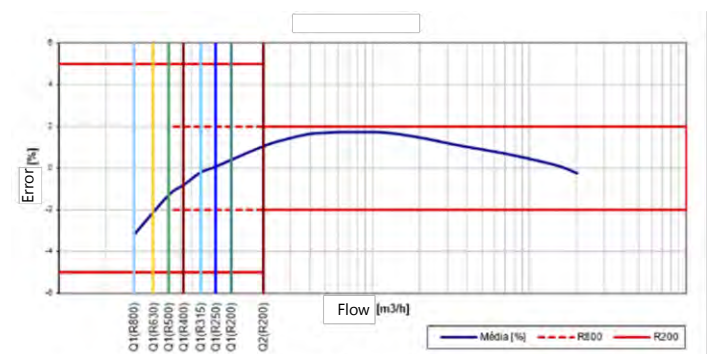
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OPTIONS:

eREGISTER water meters can be integrated into a smart city project by being combined with JANZ Telemetry System and mobile application ( LPWA Telemetry System) or any other similar product.

For more information, please contact:

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