hidroconta
metering technology

WHEN WATER **COUNTS**

water meter

centaURUS

SERIE 100

Made in Spain

hidroconta.com

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SERIE 100

Single jet metering system

Electronic water meter with **mechanical body**

Autonomy **15 years**

Starting flow **from 5 l/h**

Protection **IP68**

Communications included **NB-IoT/WM-Bus**

High accuracy **R200H**

Adjustable display

Installation **UO/DO**

REV.7

Smart water meter

CENTAURUS records water consumption in real-time. Access to recorded data by daily, weekly, or monthly patterns through our SOFTWARE solution.

Receive just-in-time leaks, tampering or clogging alerts. CENTAURUS sends an instant alert to take immediate action. Due to its high accuracy, the smallest leaks are now detectable. Avoid unnecessary waste thanks to predictive maintenance.

Our SOFTWARE solution includes DMA performance analysis. Access to a daily updated WATER BALANCE of your network.

CENTAURUS Series.
The smart water meter designed by HIDROCONTA in Europe.

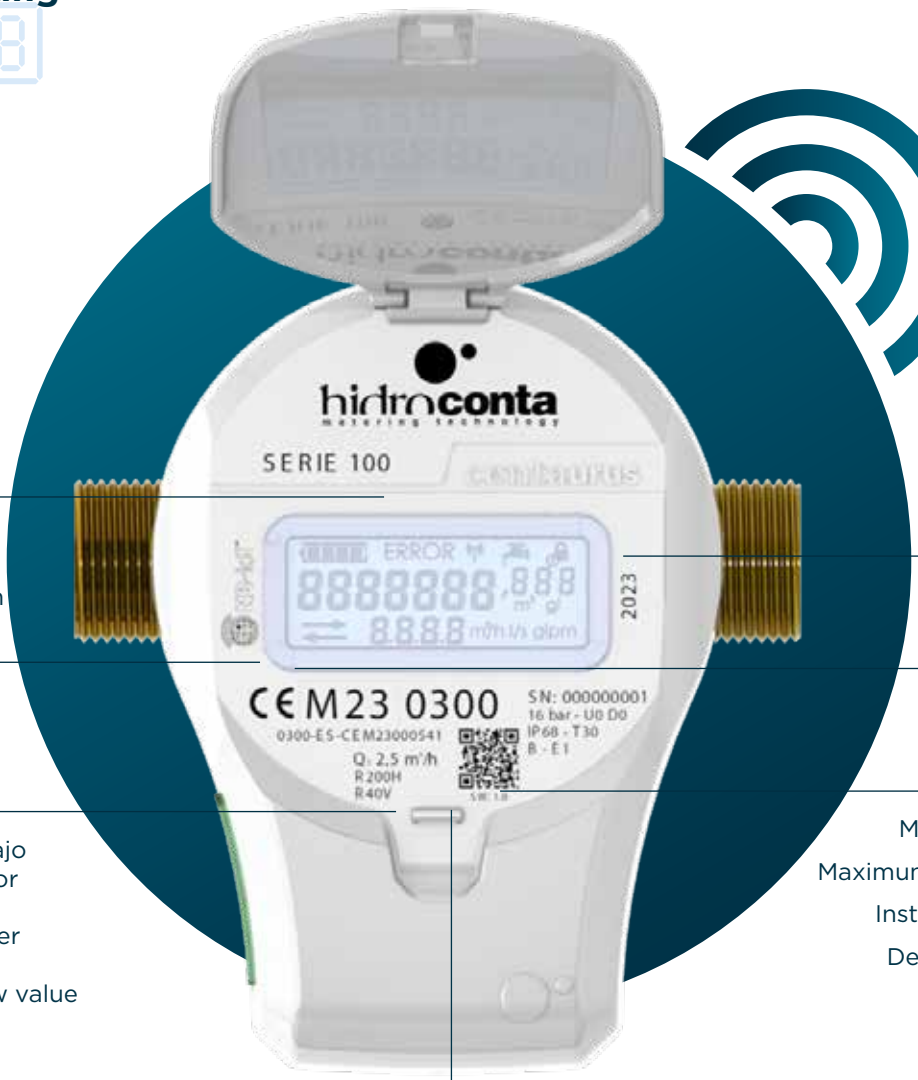
Homologation MID

Hidroconta's Centaurus water meter has the metrological requirements based on the Directive 2014/32 / EU, so they are normally used for the totalization and control of domestic water consumption. In Hidroconta we make strict tests in the counters that assure its quality and its precision.

Technical specifications

- ✓ Temperature range T30.
- ✓ Copper alloy body.
- ✓ IP68 sealed electronic totalizer.
- ✓ The electronic totalizer can be rotated manually, for a reading in any position.
- ✓ MID approval for potable water. Directive 2014/32 / EU.
- ✓ Straight sections are not necessary at the meter input or output U0-D0.
- ✓ Single jet metering system.
- ✓ Electromagnetic environment class: E1

Dial marking



Water meter manufacturer and model

Accepted communication protocols

Rango de trabajo
MID approval for drinking water
Certifying center

Permanent flow value

Working range

Year of manufacture

Alphanumeric display

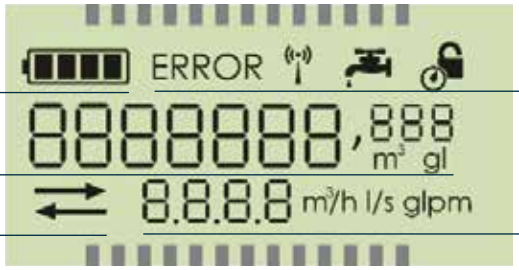
Meter serial number

Maximun working pressure

Installation conditions

Degree of protection

Software Version



Battery status

Registered water volume

Flow direction

Alarms

Registered instantaneous flow

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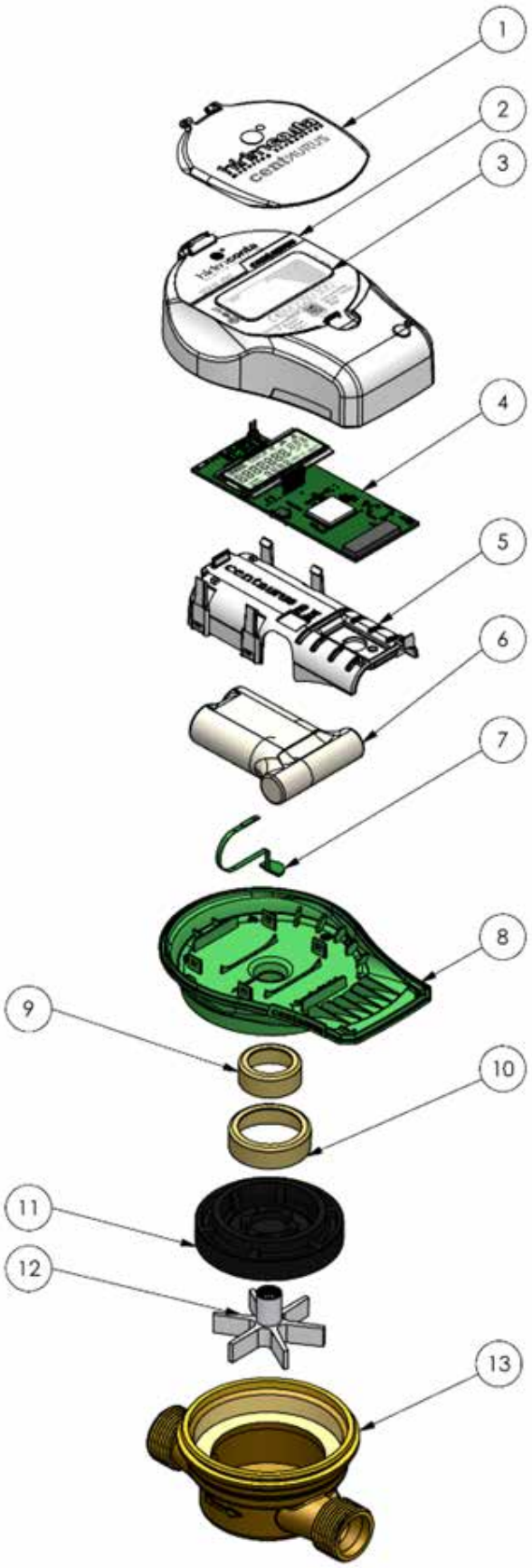
Disassemble

Nº	DESCRIPTION	MATERIAL
1	**Cover**	Polycarbonate
2	**Casing body**	Polycarbonate
3	**Crystalline casing**	Polycarbonate
4	**PCB and Display**	Assembly
5	**Battery case**	Polycarbonate
6	**Batteries**	Li-Ion
7	**Inductive sensor**	Assembly
8	**Casing base**	ABS
9	**Anti-fraud ring**	Iron
10	**Anti-fraud ring**	Iron
11	**Plate + separation ring**	Plastic
12	**Helix**	Plastic + magnet
13	**Water meter body**	Copper alloy



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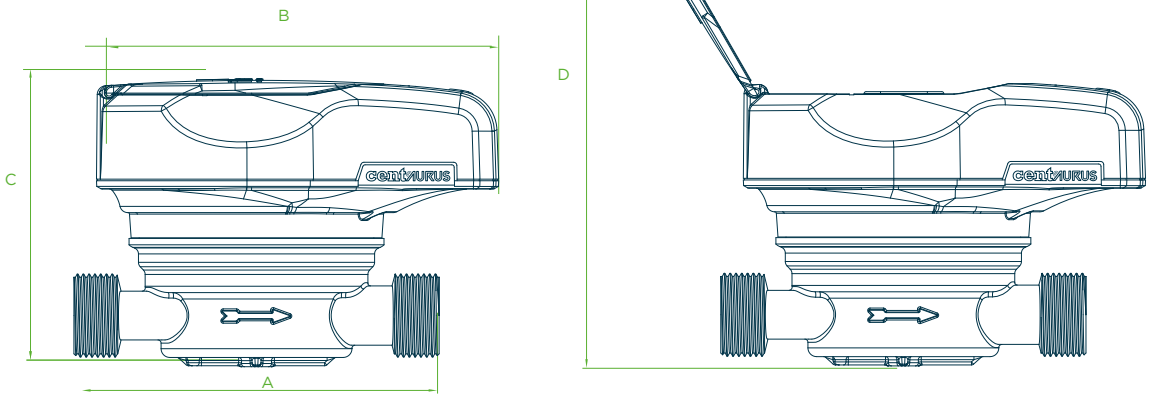
Dimensions



DN	A	B	C	D	WEIGHT WITHOUT COUPLING	THREADED CONNECTIONS
mm	in	mm			Kg	
13	1/2”	115	130	90	160,5	0,40	G 7/8” x 3/4 BSP
15	1/2”	115	130	90	160,5	0,41	G 3/4” BSP
20	3/4”	130	130	90	160,5	0,51	G 1” BSP

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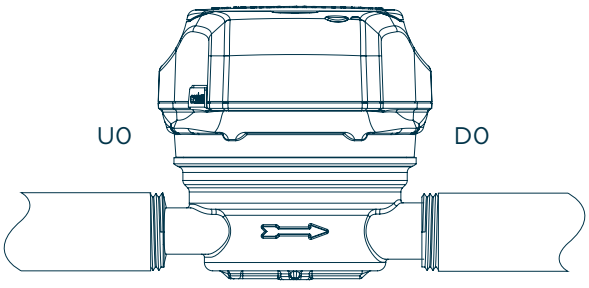
Packing

DN	UNITS PER BOX	BOX DIMENSIONS (cm)			GROSS WEIGHT
		Largo	Ancho	Alto	Kg
DN13	1	16	10	14	0,5s
DN15	1	16	10	14	0,5
DN20	1	20	15	16	0,6

Diagrams for installing

✓ For the installation of Centaurus serie 100 straight sections are not necessary in the input or output.



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SERIE 100

Working conditions

ROOM TEMPERATURE	MAXIMUM PRESSURE
-10 °C ~ 55 °C	≤ 16 bar

Maximum permissible error

RANGE	ERROR (%)
$Q_1 \leq Q < Q_2$	± 5%
$Q_2 \leq Q \leq Q_4$	± 2%

Technical specifications

DN		Q_4	Q_3	Q_2	Q_1	STARTING FLOW RATE	MINIMUM READING	MAXIMUM READING	RATIO
mm	in	m^3/h		l/h		l/h	m^3		
13	1/2"	3,125	2,5	20 100	12,50 62.50	5	0,001	9.999.999	R200H R40V
15	1/2"	3,125	2,5	20 100	12,50 62,50	5	0,001	9.999.999	R200H R40V
20	1/2"	5	4	32 160	20 100	6	0,001	9.999.999	R200H R40V

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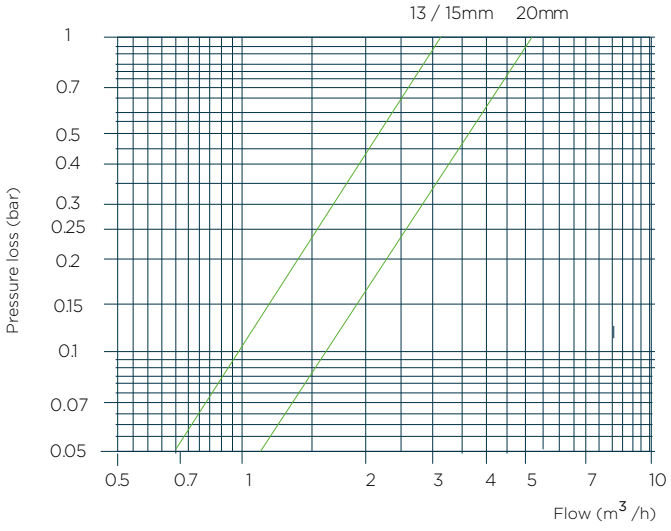
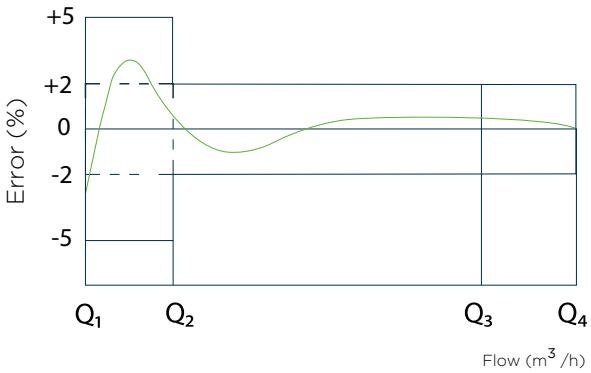
Pressure loss curve



Flow error curve



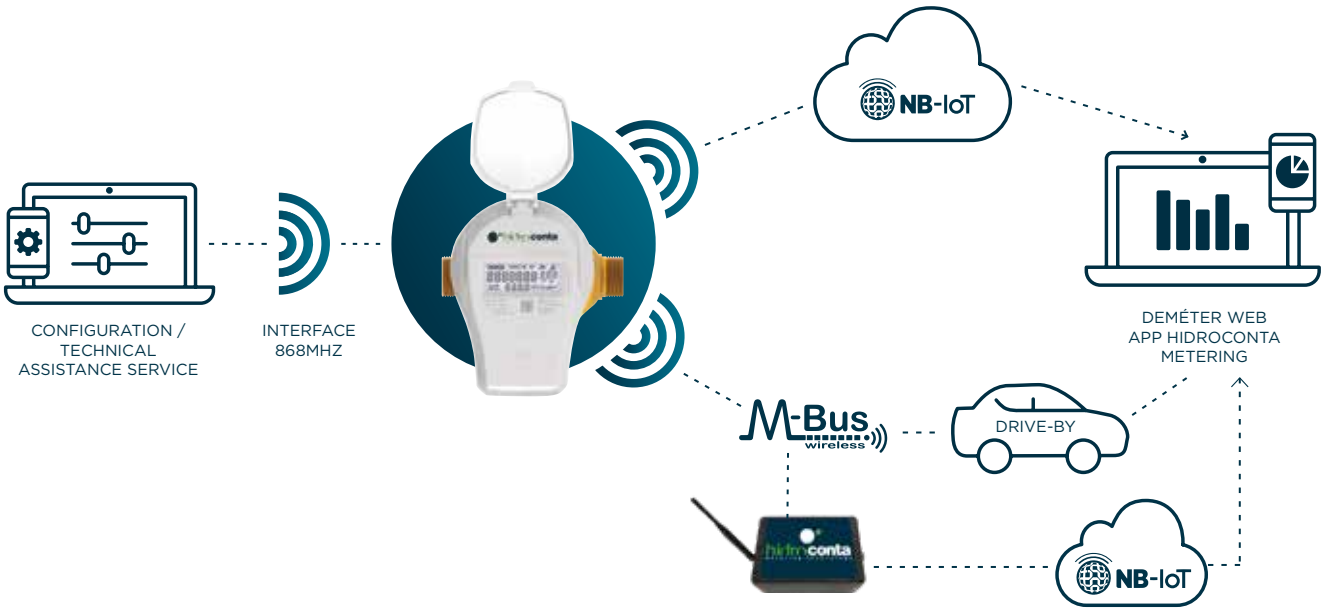
Communications

· **Short range communications 868 MHz.** Wireless communication port for local connection to the device for maintenance/configuration tasks.

· **NB-IoT for long-range communications**

· **wM-Bus for walk-by/drive-by communications or fixed network**

Automatic reading water meter



NB-IoT	
Bands	B8 / B20
Transmission power	23 dBm +/-2dB
Firmware Update	Via FOTA

WM-Bus
868 MHz
OMS T1 and C1

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Historical values

The hourly, daily and monthly values of the measured parameters are stored in internal memory.

The recorded data can be read remotely.

Data register

· Total volume.
· Hourly, daily and monthly volume.
· Engineering parameters of the NB-IoT connection.
· Alarms.

Alarms

Reverse flow alarm:
Reverse flow detection. If there is flow in the reverse direction the alarm is triggered.
Set the amount of liters to trigger the alarm.

Leak alarm:
Occurs when constant flow rate is higher than a specific flow (time and flow are customizable values).
HIDROCONTA recommends to set it up 0.5% Q3.

No consumption alarm:
Occurs if the detected flow rate is zero for a certain period of time (customizable).

Under Dimensioned alarm:
Occurs when the average flow rate is higher than a custom value during a certain customizable period of time.

Over Dimensioned alarm:
Occurs when the average flow rate is lower than a custom value during a certain customizable period of time.

Burst alarm:
Occurs when a customized constant flow rate is higher than a specific flow for a short period of time
HIDROCONTA recommends to set it close to Q3.

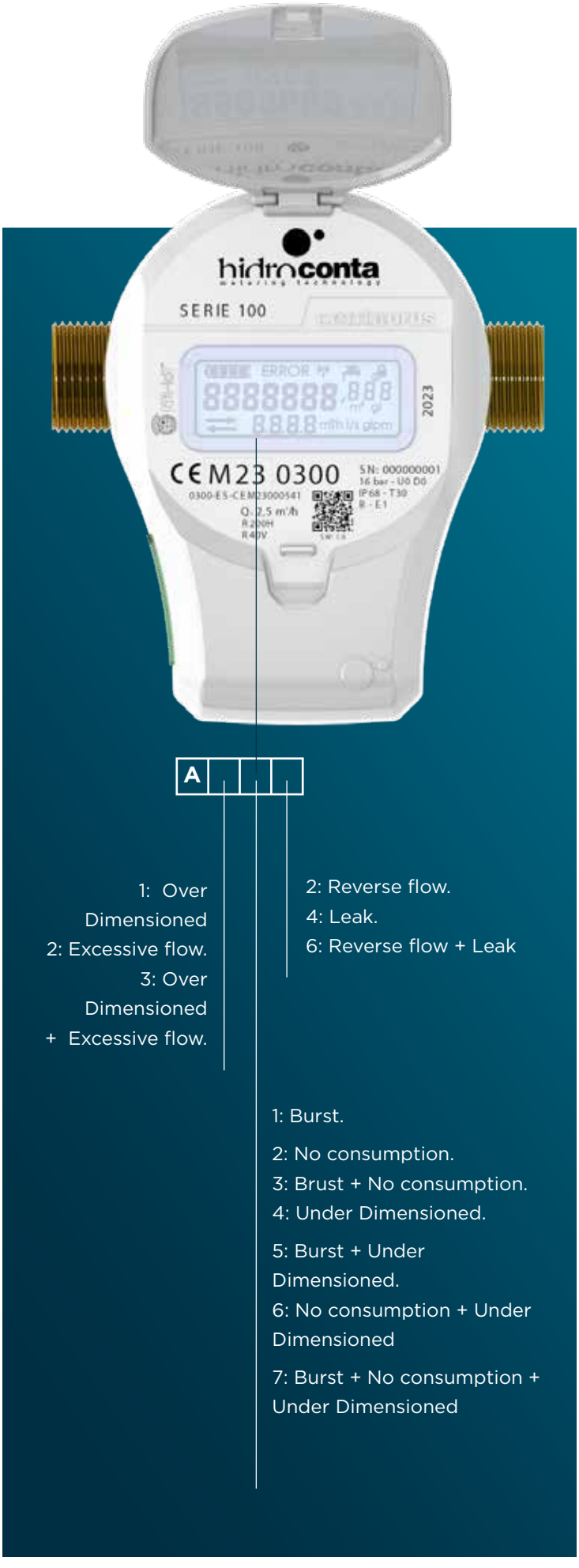
Excessive flow alarm:
Occurs when an instant flow rate is higher than a custom flow value.
HIDROCONTA recommends to set it close to Q4.

Alarms notice on the display

In the event that one or more alarms occur, they will be shown on the display instead of the flow rate digits, alternating with it as follows:

A capital “A” will appear in the leftmost digit indicating that there are active alarms (or already past but not reported).

The remaining 3 digits will show which alarms exist, each digit will report alarms as follows.



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Functionality

Operation timed by a real-time clock periodically synchronized by an external clock source. Communications according to scheduled programming or commanded by an operator in person. Temporarily scheduled communication supports:

- Up to 8 registration windows within a day of operation. Specifying the start and end time of the period and the recording interval (minutes).
- Up to 8 daily transmission windows. Allowing to specify start time of the connection.
- Standardized operating profiles based on the requirements for registering historical consumption and communications.
  - · **Normal-24:** Sending data every 24 hours and recording every hour.
  - · **Normal-8:** Data sending every 8 hours and recording every hour.
  - · **Medium:** Sending data every 12 hours and recording every 30 minutes.
  - · **Extreme:** Sending data every 6 hours and recording every 15 minutes.

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MODE	AUTONOMI	COMMUNICATION	HISTORICAL
Normal -24	15 years	24 h	1 h
Normal -8	11 years	8 h	1 h
Medium	13 years	12 h	30 min
Extreme	10 years	6 h	15 min

Installation instructions

The meters must always be full of water when operating, minimum presure 0,3 bar, and installed below the slope of the rest of the pipeline. This stops air pockets from forming inside.

If there is air in the pipeline, suckers must be fitted to avoid incorrect readings. If the water in the pipeline contains large suspended particles, an initial screening filter should be installed.

Fit a valve upstream from the meter to facilitate maintenance or repair.

A new pipeline should be drained before fitting a meter to eliminate particles.

Do not force the meter during assembly; avoid tension or torsional stress, especially to the threaded connections.

Once the physical installation of the water meter has been completed, the same must be completed by adding the geolocation of the same in the server.

This step will be done using an application (APP) for mobile devices as a tool. The “Centaurus Connect” application.

FAQs

1. What are the ranges of measurement and precision?

The measuring range of the meters is determined by the Directive MID 2014/32 / UE establishing the ratio between the value of the permanent flow (Q3) and that of the minimum flow (Q1). The water meter can measure up to the maximum flow rate (Q4) for short periods of time without deterioration.

The maximum permissible error, positive or negative, in volumes between the transition flow (Q2) (included) and the overload flow (Q4) would be 2% with a water temperature 30 ° C.

The maximum permissible error, positive or negative, in volumes between the minimum flow rate (Q1) and the transition flow (Q2) (excluded) would be 5%.

2. The MID directive and its compliance

The MID Directive (2014/32 / EU Measuring Instruments Directive) is a directive of the European Union whose purpose is to harmonize the di

erent aspects of Legal Metrology in the member states.
The most important aspect of this directive is that equipment in possession of a MID certificate can be used in the EU.

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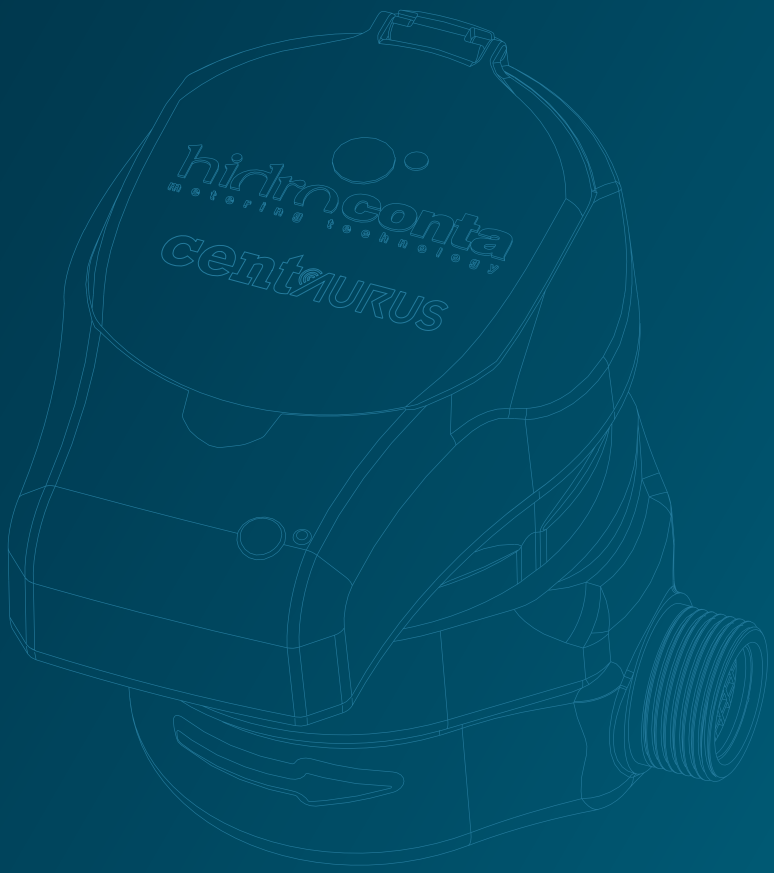

water meter

centAURUS

SERIE 100

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AENOR
GESTIÓN DE LA CALIDAD
ISO 9001
ER-0362/2000

CERTIFIED IQNet MANAGEMENT SYSTEM

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