



Cordonel®

Ultrasonic C&I water meter

Cordonel® is an innovative ultrasonic C&I water meter with patented flow technology that measures low- to high-volume flow with unmatched accuracy. Equipped with pressure and temperature sensing, alarms, and data storage, it fills a critical need in commercial, industrial, and irrigation markets.

FEATURES

- Advanced U0D0 capability - zero straight pipe requirements
- Installation in horizontal and vertical pipe orientations
- LCD for consumption, flow, temperature, pressure (optional) and status information
- NFC wireless interface for readout of the last volume reading
- Optional pulse output with programmable values and lengths

BENEFITS

- Maintenance free over its operational lifetime
- Constant accuracy over lifetime, no degradation as components age
- Secure encrypted data transmission
- 20-year average meter lifetime incl. battery under standard usage conditions

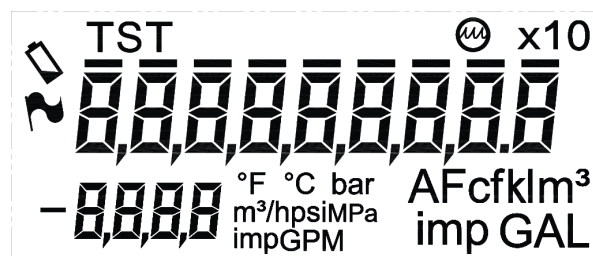
Superior accuracy


Cordonel's patented flow rate technology ensures that every drop of water passes through one of its three individual measuring paths. Cordonel's horizontal and vertical pipe orientations means no straight upstream and downstream pipe requirements; measurements are accurate even behind a 90-degree bend. With solid-state ultrasonic engineering and reliable readings over its 20-year battery life, Cordonel delivers accuracy unmatched in the industry.

Applications

- AMI and AMR output for Smart Water Networks
- Measurement for billing of potable water up to 122 °F (50 °C)
- High flow such as irrigation
- Low flow such as light load periods
- Leak detection
- Control of industrial processes using a pulse output
- Supply of rich data for DMA analysis

Display

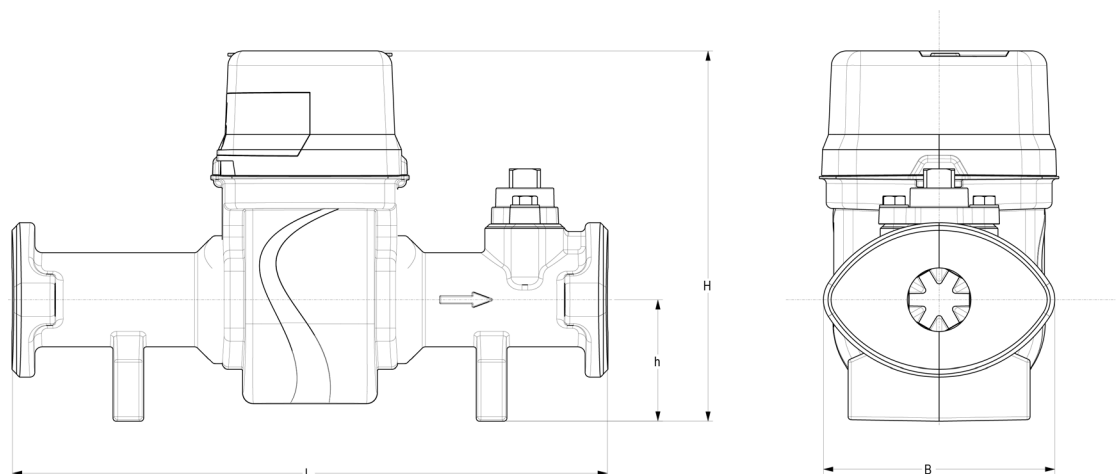


 Alarm is triggered

 Low battery level is reached

TST System is set up in hydraulic testing mode

 Indicates positive or negative flow



DIMENSIONS AND NET WEIGHTS

Size	L (lay length)	B (width)	H (Height)	h (Height to pipe axis)	Net Weight (kg)
1.5" (DN 40 mm)	13" 330mm	6.22" 158mm	9.6" 244mm	3.15" 80mm	11.4
2" (DN 50 mm)	10" 254mm	6.22" 158mm	9.6" 244mm	3.15" 80mm	10.8
	15.25" 387mm	6.22" 158mm	9.6" 244mm	3.15" 80mm	12.6
	17" 432mm	6.22" 158mm	9.6" 244mm	3.15" 80mm	13.1
3" (DN 80 mm)	17" 432mm	7.87" 200mm	10.8" 275mm	3.74" 95mm	23.8
	19" 483mm	7.87" 200mm	10.8" 275mm	3.74" 95mm	24.9
4" (DN 100 mm)	20" 508mm	9" 229mm	12.2" 310mm	4.37" 111mm	34.0
	23" 584mm	9" 229mm	12.2" 310mm	4.37" 111mm	36.2

SPECIFICATIONS

Service	Measurement of potable and reclaim water.			
Temperature Ranges	Water operating:	33 °F (0.55 °C) to 122 °F (50 °C)		
	Ambient air operating:	-22 °F (-30 °C) to 140 °F (60 °C)		
	Storage air:	-30 °F (-34.4 °C) to 158 °F (70 °C)		
Starting Flow	1-1/2" (DN 40 mm) size: 0.05 gpm (0.012 m3/h)	2" (DN 50 mm) size: 0.05 gpm (0.012 m3/h)	3" (DN 80 mm) size: 0.15 gpm (0.033 m3/h)	4" (DN 100 mm) size: 0.24 gpm (0.054 m3/h)
Low Flow (±3%)	1-1/2" (DN 40 mm) size: 0.18 gpm (0.04 m3/hr)	2" (DN 50 mm) size: 0.18 gpm (0.04 m3/hr)	3" (DN 80 mm) size: 0.44 gpm (0.10 m3/hr)	4" (DN 100 mm) size: 0.70 gpm (0.16m3/hr)
Normal Water Operating Flow Range (±1.5%)	1-1/2" (DN 40 mm) size: 0.26 to 176 gpm (0.06 to 40 m3/hr)	2" (DN 50 mm) size: 0.26 to 176 gpm (0.06 to 40 m3/hr)	3" (DN 80 mm) size: 0.70 to 440 gpm (0.16 to 100 m3/hr)	4" (DN 100 mm) size: 1.14 to 704 gpm (0.26 to 160 m3/hr)
Maximum Continuous Operation	1-1/2" (DN 40 mm) size: 220 gpm (50 m3/hr)	2" (DN 50 mm) size: 220 gpm (50 m3/hr)	3" (DN 80 mm) size: 550 gpm (125 m3/hr)	4" (DN 100 mm) size: 881 gpm (200 m3/hr)
Maximum Intermittent Operation	1-1/2" (DN 40 mm) size: 343 gpm (78 m3/hr)	2" (DN 50 mm) size: 396 gpm (90 m3/hr)	3" (DN 80 mm) size: 881 gpm (200 m3/hr)	4" (DN 100 mm) size: 1365 gpm (310 m3/hr)
Maximum Operating Pressure	200 PSI (13.8 bar)			
Register	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp. Gal. / Acre Ft.) Programmable		AMR/AMI reading and pulse outputs Guaranteed 20-year battery life	
Access Port	NPT			
Flange Connections	U.S. ANSI B16.1 / AWWA Class 125			
Materials	Maincase - Epoxy coated ductile iron Measuring Transducers - High grade polymer Inner tube - High grade polymer; stainless steel		Battery - Lithium Gaskets - EPDM Other materials - Glass fiber reinforced polymer; stainless steel	

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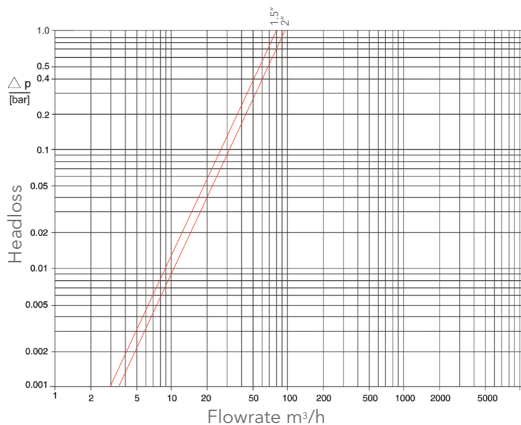
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Smart Alarms

Cordone! meters have many configurable smart alarms designed to protect your utility's investment, enhance customer service, and monitor/optimize distribution systems. These alarms include:

- Empty Pipe
Detects the absence of water in the flow tube and sends an alert. Allows you to identify main breaks downstream and water shortages for quicker resolution to ensure water availability. This alarm can also indicate the water meter has been removed from service, or notify you of potential tamper.
- Customer Leak
Detect continual consumption of water over a period of time to indicate downstream leaks. This protects your utility, infrastructure and customers through alarm notifications that can reduce water loss and leak adjustment costs.
- Low Battery
Replace your meters before they stop recording consumption through alerts indicating battery capacity to the meter or valve is running low.
- Reverse Flow
Keep untreated water from re-entering your distribution system and deter tampering attempts through an alarm triggered when reverse flow is detected at the meter.
- High Flow
Detect broken pipes and reduce property damage through an alert triggered by the detection of excessive flow rates.
- Pressure
Get alerted when water pressure exceeds or falls below the pressure threshold to prevent potential disruptions of service. Standard in 3" and above; optional in 1.5" and 2" sizes.
- Temperature
Get alerted when water temperature exceeds or falls below the temperature threshold so you can take action to better protect your meter and water network assets.

Typical Headloss Curve



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