



## Datasheet

# C-SS: Conductivity/Salinity Digital Sensor



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# C-SS: Conductivity/Salinity & Temperature

## Digitally optimised measurement technology

- 4 electrode conductivity sensor (2 graphite & 2 platinum)
- Smart sensor stores configuration settings and calibration history
- Range 0-200 mS/cm
- Integral Temperature sensor
- Digital sensor - Modbus RS-485
- Robust and watertight

## Applications

- Industrial effluent treatment
- Urban wastewater treatment
- Surface water monitoring
- Sea water
- Drinking water



## Sensor electrode technology:

The sensor works with 4 electrodes: An alternating current of constant voltage is established between a primary pair of electrodes in graphite. The secondary electrodes in platinum regulate the voltage imposed to the primary electrodes to reflect the fouling. The voltage measured between the primary electrodes is the function of the resistance and therefore a measurement of the conductivity.

## Digital Technology:

The smart digital C4E sensor stores calibration history data within the sensor. This allows a 'plug and play' system without re-calibration.



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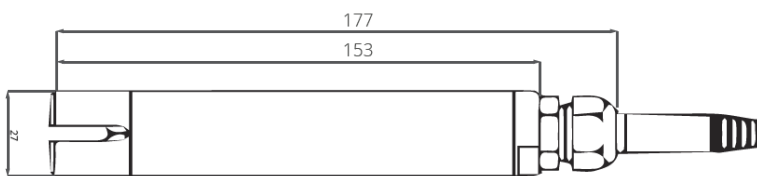
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## Specification

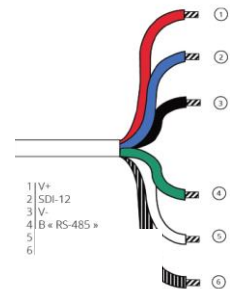
Measurement principle	Conductivity sensor with 4 electrodes (2 graphite, 2 platinum)
Measured conductivity ranges	0-200,0 $\mu$ S/cm, 0 –2000 $\mu$ S/cm 0 –20,00 mS/cm. 0 –200,0 mS/cm
Resolution	0.01 to 1 according to the range
Accuracy	+/- 1 % of the full range (Above 100mS/cm use appropriate buffer solution)
Salinity range	5-60 g/Kg
TDS -KCl range	0-133,000 ppm
Response time	< 5 s
Working temperature	0°C to 50°C
Temperature compensation	NTC
Operating temperature	- 10°C to + 60°C
Signal interface	Modbus RS-485 (option SDI-12)
Maximum refresh time	Max < 1 s
Sensor power-supply	5 to 12 volts
Electric consumption	Standby: 25 $\mu$ A Average RS485 at 1 second sampling: 6.3mA Average SD12 at 1 second sampling: 9.2mA Current Pulse: 500mA

## Sensor

Dimensions	Dimensions Diameter: 27 mm ; Length : 177 mm
Weight	350g (sensor + 3 metres cable)
Material	PVC, stainless steel
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare wires
Degree of protection	IP68 up to gland
Protection	IP68



1 | V+  
2 | SDI-12  
3 | V-  
4 | B « RS-485 »  
5 | A « RS-485 »  
6 | Cable shield



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