

Digital SENSOR

CTZN : INDUCTIVE CONDUCTIVITY

Inductive conductivity no sensitive to the fouling

- Sensor regulated in temperature
- Ranges 0 to 100 mS/cm
- Numerical communication **Modbus** RS-485 and SDI12
- Compact, **robust** and watertight

Paramètres mesurés :

- Conductivity compensated in temperature (mS/cm)
- Conductivity non-compensated in temperature (mS/cm)
- Salinity (g/Kg)
- Temperature (°C)

Applications :

- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring
- Sea water
- Fish farming

Inductive method :

A ring-type coil is excited at fixed intervals and the response is retrieved on a second coil, which is linked to the excited coil. The connectivity between the coils (determined by the degree of conductivity) takes place via the conducting solution.

Economic and successful technology that requiring not enough maintenance and not consumable.

Digital Technology :

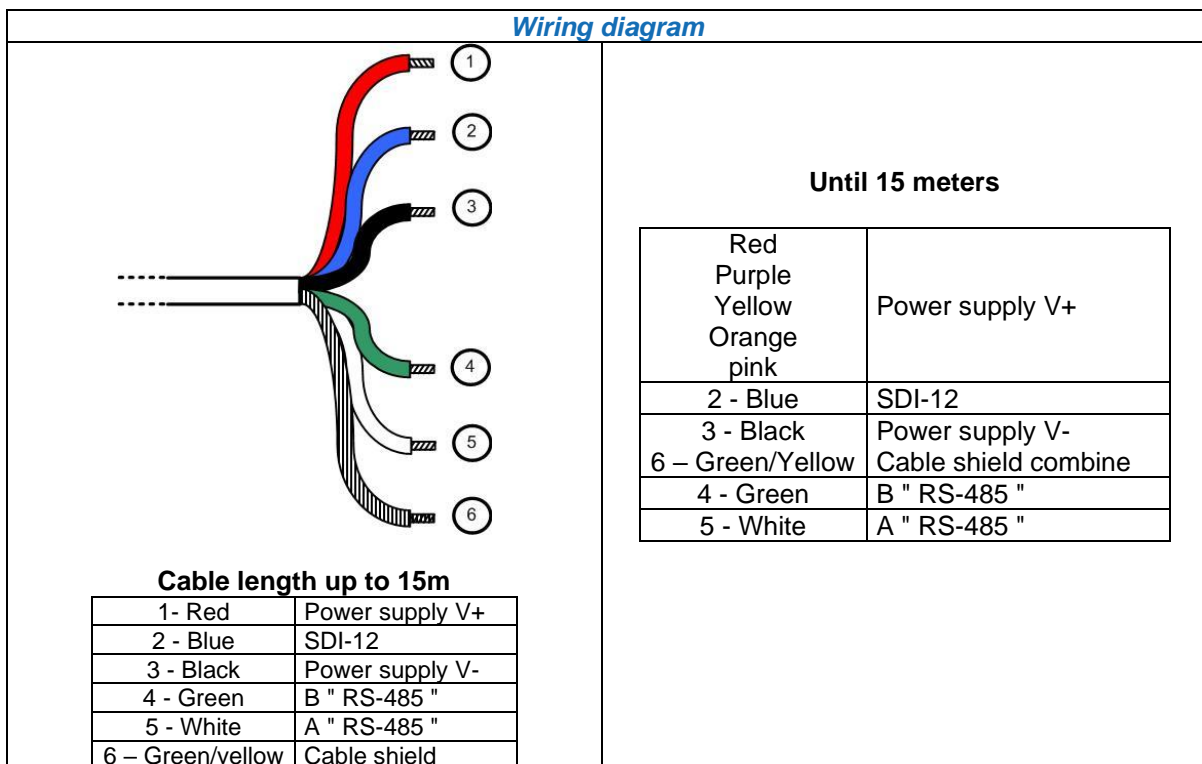
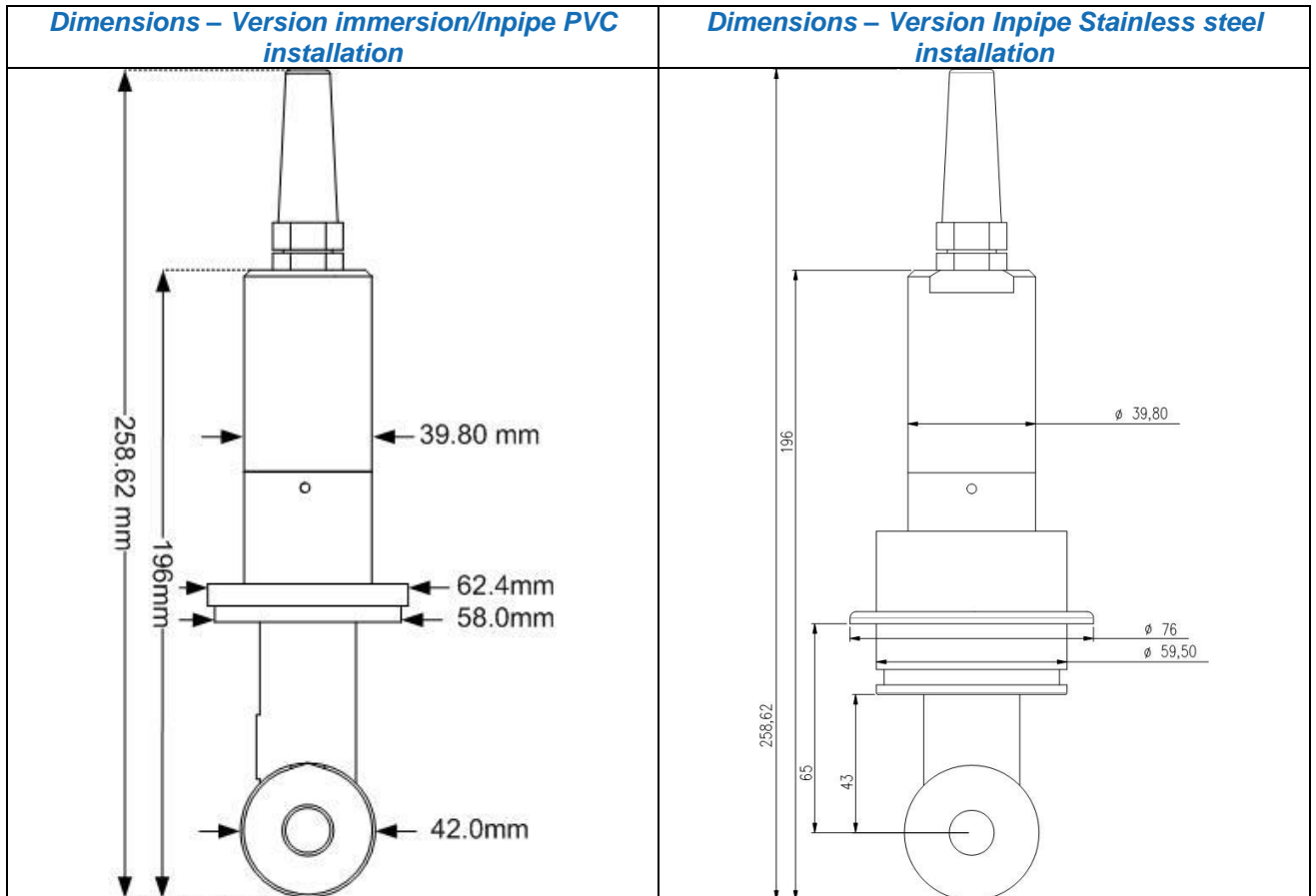
The “smart” Digital CTZN sensor stores calibration and history data within the sensor. This allows you a “plug and play” system without re-calibration.

Thanks to the Universal Modbus RS485 protocol, the PONSEL Digital CTZN can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).



CTZN Specifications :

Measures				
Measure principle	Inductive conductivity sensor regulated in temperature			
Measure ranges conductivity	0,0 –100,0 mS/cm			
Resolution	0,1			
Measure ranges salinity	5-60 g/Kg			
Measure range Temperature	0 to 50 °C			
Resolution Temperature	0.01°C			
Accuracy Temperature	± 0,5 °C			
Temperature compensation	With NTC or external measure			
Accuracy T°C	± 0.5 °C range 0-40 °C			
Response time	90% of the value in less than 30 seconds			
Stocking temperature	-10°C à + 60°C			
Signal interface	Modbus RS-485 en standard et SDI-12			
Maximum refreshing time	Maximum < 1 seconde			
Sensor power-supply	5 to 28 volts, max 30 V			
Electric consumption	Automatic Standby < 50 µA, Heating time 100 mS			
	Average Modbus RS485/ Range 0-100 mS/cm			
		Vin 5V	Vin 12 V	Vin 24 V
	1 measure/s	31 mA	15,5 mA	11,5 mA
Max current pulse 700 mA during 2 mS, 350 mA during 150 mS				
Sensor				
Dimensions	Diameter max. 62,4 mm, Lenght : 196 mm			
Weight	700 g			
Material	EPDM, PVC, Stainless steel			
Maximum pressure	5 bars			
Connexion	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector			
Protection	IP68			



Note:

Never exceed a voltage of 10VDC (absolute maximum rating) on communication lines RS485, A or B, under penalty of irreversible destruction of the transceiver component RS 485.

SDI-12: respect the voltage value described in the associated standard (nominal: 5 VDC)

Always connect ground + shield first.