

Ponsel Digital Sensor

OPTOD
C4E
PHEHT
NTU

Sensor Interface Manual



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Overview

The Ponsel family includes a range of Digital physicochemical sensors to measure various water features depending on the model. Available sensors include: Dissolved Oxygen (optical), Turbidity, pH/Redox, and Conductivity/Salinity. These sensors communicate through either Modbus RS-485 or SDI-12 (option when ordering).



Figure 1: Ponsel C4E Conductivity sensor

Installation

Follow the manufacturer's recommendation for setting up and configuring the Ponsel sensor.

Connecting to an iSIC Data Logger

To wire the sensor into the iSIC, route the cable and wires through a gland fitting installed in the enclosure, and then unplug the green terminal strip from the data logger before securing individual wires according to the wiring diagram below. Avoid clamping on wire insulation.



Figure 2: Unplug the green terminal strip from the data logger before wiring the sensor

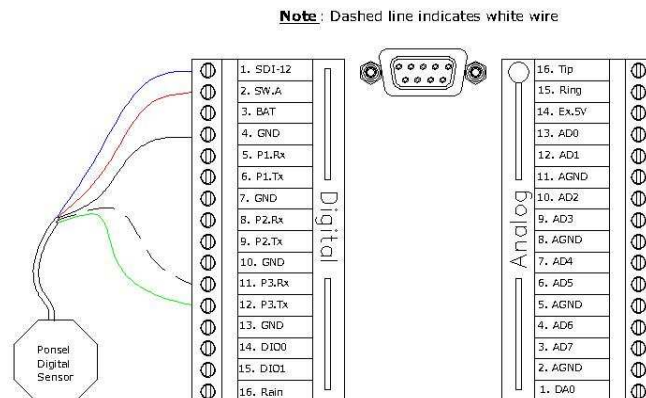


Figure 3: Physical wiring of a Ponsel sensor to an iSIC terminal strip

Table 1: Table for wiring a Ponsel sensor to an iSIC data logger

NOTE
 The Ponsel has a max voltage of 12V. Therefore, a voltage clamp must be placed between the iSIC output V and the Ponsel Supply V+.

Digital		Analog	
1. SDI-12	Blue (SDI-12)	16. Tip	-
2. SW.A	Red (Supply V+)	15. Ring	-
3. BAT	-	14. Ex.5V	-
4. GND	Black (Supply V-)	13. AD0	-
5. P1.Rx	-	12. AD1	-
6. P1.Tx	-	11. AGND	-
7. GND	-	10. AD2	-
8. P2.Rx	-	9. AD3	-
9. P2.Tx	-	8. AGND	-
10. GND	-	7. AD4	-
11. P3.Rx	White (A "RS-485")	6. AD5	-
12. P3.Tx	Green (B "RS-485")	5. AGND	-
13. GND	-	4. AD6	-
14. DIO0	-	3. AD7	-
15. DIO1	-	2. AGND	-
16. Rain	-	1. DA0	-

Notes:

- The Ponsel sensor can only take 12V+ so a voltage clamp is required between the BAT/SW.A and the Ponsel supply V+

Computer Interface

iChart software is used to set up the iSIC data logger, as well as to acquire and process data. Launch the software and select **File | New Project**. Follow the Setup Device Wizard to create a project file. Additional information is available in the iChart manual.



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