




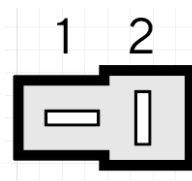
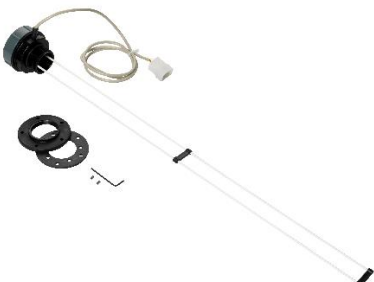
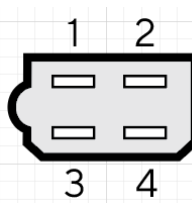
## FAQ\_06

# Connecting capacitive level sensors

rev.AA

The veratron Adjustable Capacitive Level Sensors offer high precision readings and continuous measurement over the entire Empty – Full range without intermediate hard steps, therefore representing the best way to monitor your Fresh and Waste water levels onboard.

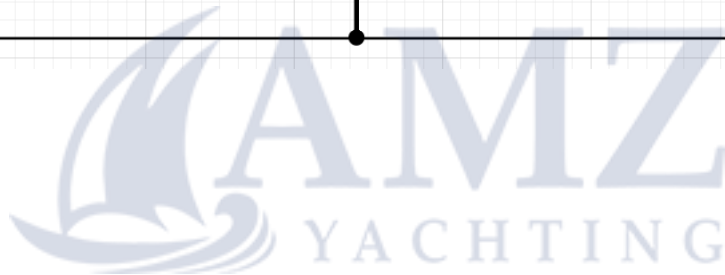
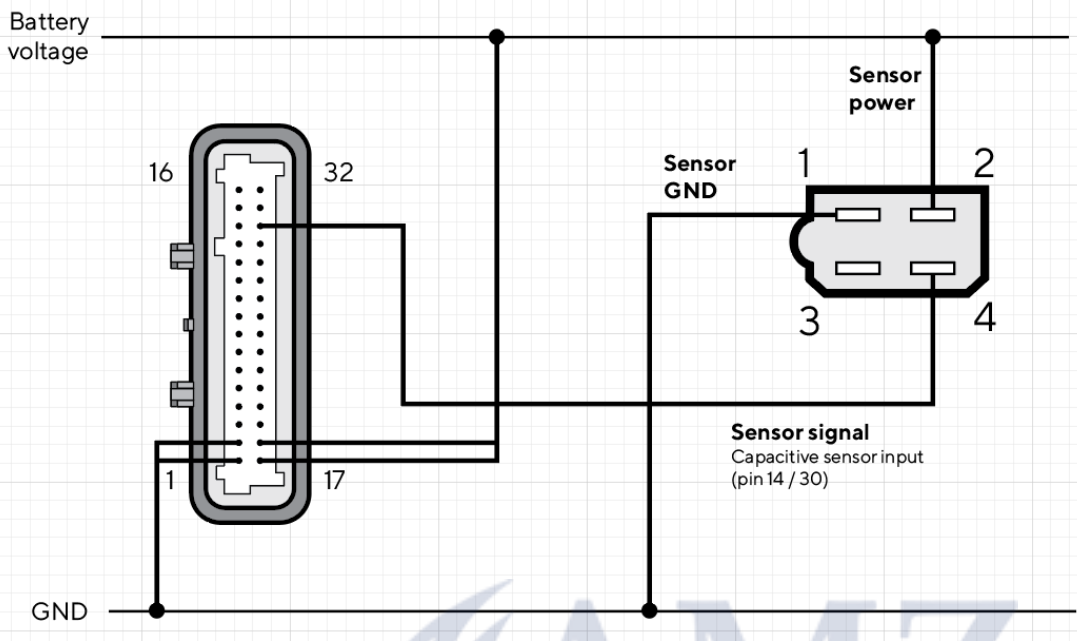
SENSOR	TYPE	ARTICLE NO.	ADJUSTABLE LENGTH	OUTPUT SIGNAL
Fresh Water	A	N02-240-402	80 – 600 mm	4 – 20 mA
Fresh Water	A	N02-240-404	600 – 1200 mm	4 – 20 mA
Fresh Water	A	N02-240-406	1200 – 1500 mm	4 – 20 mA
Fresh Water	B	N02-240-802	80 – 600 mm	4 – 20 mA
Waste Water	C	N02-240-902	200 – 600 mm	4 – 20 mA
Waste Water	C	N02-240-904	600 – 1200 mm	4 – 20 mA
Waste Water	C	N02-240-906	1200 – 1500 mm	4 – 20 mA

TYPE	PICTURE	CONNECTION	REMARKS
A			<p>Connections visible on the top side via 2x 6.3mm blade terminals.</p> <p>One bar coated only (in white color).</p>
B			<p>Blue cap screwed into the top side.</p> <p>2-wires connector with 6.3 blade connections.</p> <p>One bar coated only (in white color).</p>
C			<p>Grey cap screwed into the top side.</p> <p>4-wires connector with 6.3 blade connections.</p> <p>Bars both coated (white color).</p>

**CONNECTION TO ENGINE BOX**

The veratron EngineBox – depending on the variant – offers two (single engine) or four (dual engine) capacitive sensor inputs.

Each of these inputs shall be connected to the sensor as follows:



**CONNECTION TO OCEANLINK DISPLAYS**

Every OceanLink display is designed with one or two capacitive sensor inputs.

**CONNECTION TO VIEWLINE GAUGES**

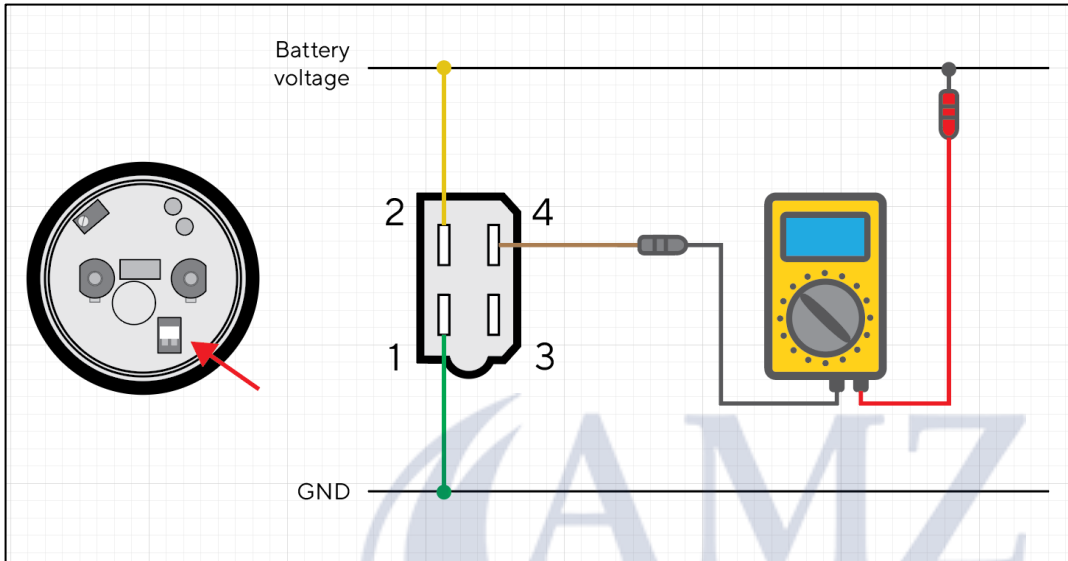
**SENSOR TROUBLESHOOTING**

It is possible to test the correct functioning of the sensor by using a multimeter to measure the output current delivered by the sensor (see diagram below).

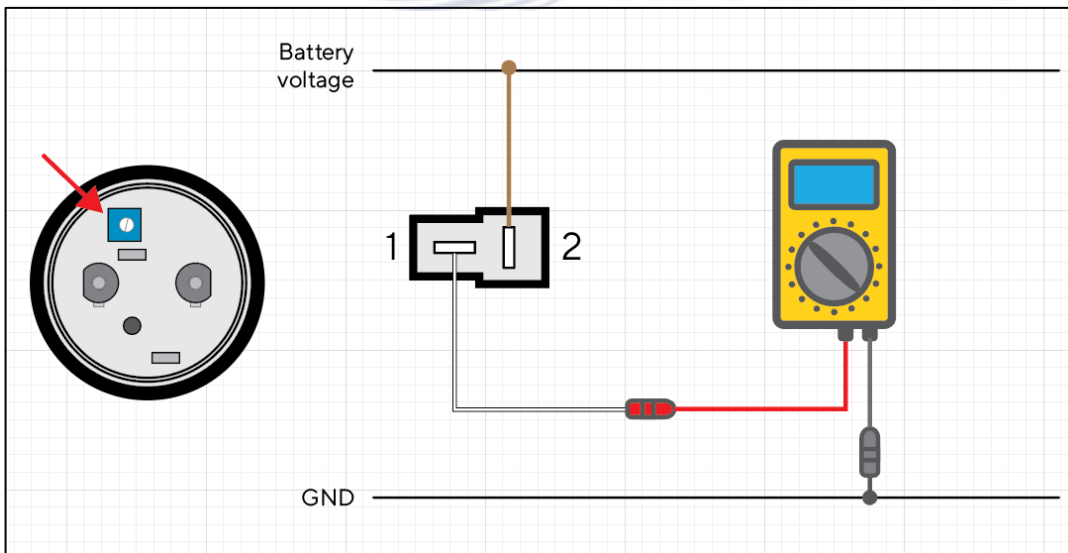
Standard veratron instruments (e.g. ViewLine) are calibrated to read a signal in the range of 4 mA (empty tank) to 20 mA (full tank).

The multimeter must be set for mA measurements and the leads must be connected accordingly (refer to the manual of the multimeter manufacturer for more details).

**Sensors N02-240-90x**



**Sensor N02-240-802**



**Note:** if the multimeter leads are reversed, the measured current may be displayed negative (positive current is conventionally considered as flowing from the positive terminal to the negative one).

Dip the sensor in the tank and check the output current on the multimeter, the current must increase when the water level is rising and decrease when the level is lowered.

When the sensor is completely out of water (empty tank) the reading must be around 4 mA.

To calibrate the sensor, fill the tank to full and rotate the potentiometer on the sensor with a screwdriver until the current measurement reaches 20 mA.

For more information do not hesitate to contact your veratron dealer or reach out to us at [service@veratron.com](mailto:service@veratron.com).

