

## Zero-point calibration

By doing a 0-point calibration, one can adjust any offset that may have occurred.

Remove the measuring cell by screwing the sensor housing and measuring cell apart. Now set both DIP switches on the measuring cell to OFF. Then re-assemble the measuring cell and sensor housing to ensure that the measuring cell receives voltage.

The mA signal will now rise to approx. 4.8mA and will drop to 4.0mA within 30 seconds. The measuring cell is now zero-point calibrated.

After the calibration, the measuring cell is to be disassembled again and the desired measuring range is set via DIP switches. After this, just re-assemble the measuring cell to the sensor housing again.

## Accuracy and specification

The measuring cell in the TurTle is a ceramic cell. The cell can be programmed to having a measuring range from 0-3m to 0-10m. The measurement accuracy is calculated from FS (Full Scale).

### Accuracy

Better than  $\pm 0,25\%$  of FS

## Products

Product number	Description
1772-2100164	TurTle level sensor.
1772-2104164	Sensor housing for measuring cell with 10 mtr. PUR cable.
1772-2103824	Sensor housing for measuring cell with 15 mtr. PUR cable.
1772-2101164	Sensor housing for measuring cell with 30 mtr. PUR cable.

ACOWA Turtle Pressure Transmitter has been tested in accordance with the EU EMC Directive 2014/30 / EU.



# TurTle Quickguide

**ACOWA**  
INSTRUMENTS

## About TurTle

TurTle is a unique hydrostatic pressure transmitter.

TurTle is designed for installation in pumping stations, water basins and other water and sewage related applications.

TurTle is a Danish developed and produced product, and comply with all specifications for electronics components, for installation in harsh environments.

## TurTle functions

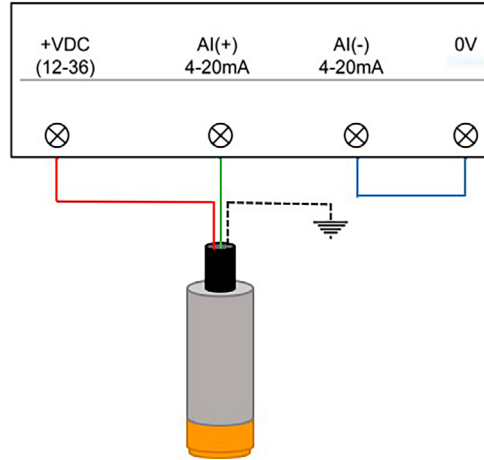
- TurTle is a hydrostatic pressure transmitter with a ceramic measuring cell.
- Measuring range on the cell can be set as a 0-3m, 0-5m or 0-10m via DIP switch.
- The measuring cell can be replaced without having to replace the entire pressure transmitter.
- The measuring cell can be calibrated to 0-point via DIP switch.
- The polarity of electrical connection can be switched without causing a failed installation (red / green or green / red)
- 3 cable lengths (10m, 15m, 30m)



## Installation and specifications

For installation of the TurTle, the following specifications may be required.

NOTE! TurTle is not EX-rated and therefore cannot be used for installation in EX areas.



The cell can be installed without any use of tools.

It has a natural stop, which make it possible to simply tighten the cell by just using your hands.

It has 2 O-rings that ensure the cell is sealed correctly. One is placed on the cell and one on the bottom of the sensor housing.

<b>Size</b>	L = 235mm, W = 50mm
<b>Weight</b>	1300g with 10m cable
<b>Electric installation</b>	Red = Power Supply Green = Signal Black = Shield/ground
<b>Cable length</b>	Standard 10m
<b>Free fall drop</b>	30 cm
<b>Enclosure class</b>	IP68
<b>Power Supply</b>	24V DC (10V DC – 28V DC)
<b>Max. overpressure</b>	6 bar

## Set of the measuring range

The measuring range of the TurTle can be adjusted by using the two DIP switches on the measuring cell itself.

It is possible to set 3 measuring ranges, as well as a function for 0-point calibration.

The DIP switches has two positions – Up: the DIP switch is ON = 1. Down: the DIP switch is OFF = 0.

Example on how to get a 0-5m measuring range.

The DIP switches must stand in the following positions:

No. 1 = OFF (Down)

No. 2 = ON (Up)

