In most measuring systems used in the sea, pressure is a vital parameter. For moored instruments, the pressure can be used for determining the actual depth of the instrument. For instrumentation on the seabed, the pressure can be used for deriving water level. The pressure is also vital when deriving other parameters as density and speed of sound.

The Pressure sensor 4017 is a compact yet intelligent sensor designed to be mounted directly on the Top-end Plate of RCM 9/11, RDCP or via cable to Aanderaa Datalogger using SR10. The sensor can also be used as a stand-alone sensor using RS-232. The sensor is easily integrated in other measurement systems with third party Dataloggers.

**Features Pressure Sensor 4017:**
- Smart sensor technology - plug and play
- Calibration coefficients are stored in the sensor
- Low maintenance needs
- Low current drain
- Depth rating of 6000 meters
- Direct readout of engineering data
- Output parameters: Pressure, Temperature
- Selectable interval from 1 second to 255 minutes
- Rugged and robust with low maintenance needs
- Output formats: SR10, RS-232
- Up to 60MPa range
- Configured using Pressure setup program 4047 (or via Hyper Terminal)

Two SR10 channels are available; one for pressure and one for temperature. The user may configure the range on both outputs; best accuracy is achieved with a short measurement range.

The sensor can be mounted directly to the Top-end Plate of Aanderaa acoustic current meters and profilers and connected to the main control board (electronic board) with a short cable, Sensor Cable 3854.

The 10-pin receptacle in the sensor foot mates with Aanderaa CSP (Cylindrical Sealing Plug), giving access to RS-232 output. For connection to a PC the 1 meter Sensor Cable 4865L can be used. It is furnished with a watertight 10-pin CSP plug at the sensor end. An additional USB plug is used for providing power to the sensor.

The 4865 is also available in other cable lengths up to 20 meters.
**Pressure:**

- **4017A Range:** 0 – 1000kPa (0 – 145 psia)<sup>[1],[3],[5]</sup>
- **4017B Range:** 0 – 4000kPa (0 – 580 psia)<sup>[1],[5]</sup>
- **4017C Range:** 0 – 10000 kPa (0 – 1450 psia)<sup>[1],[3],[5]</sup>
- **4017D Range:** 0 – 20000kPa (0 – 2900 psia)<sup>[1],[5]</sup>
- **4017E Range:** 0 – 40000kPa (0 – 5800 psia)<sup>[1],[5]</sup>
- **4017F Range:** 0 – 60000kPa (0 – 8700 psia)<sup>[1],[5]</sup>

**Resolution:** ±0.0001% FSO<sup>(2)</sup>

**Accuracy:** ±0.04% FSO

**Temperature:**

- **Range:** 0 – 36°C (32 – 96.8°F)<sup>[1]</sup>

**Resolution:** 0.01°C (0.018°F)<sup>(3)</sup>

**Accuracy:** ±0.1°C (0.18°F)

**Response Time (63%):** <1 sec

**Output format:** AADI SR10

**Sampling interval:** 2 sec – 255 min

**Supply voltage:** 6 to 14Vdc (SR10 controlled by datalogger)

**Current drain:**
- **RS-232:** 14mA/S +0.25mA where S is sampling interval in seconds
- **SR10:** 3 mA/T where T is recording interval in minutes

**Maximum:** 50 mA

**Quiescent:** 0.25 mA (SR10, 0mA)

**Operating temperature:** -5 – +40˚C (23 – 104˚F)

**Electrical connection:** 10-pin receptacle mating CSP

**Pressure connection:** Swagelok™ 1/8 inch

**Dimension (DxH):** O.D.36 x 86mm (O.D.1.4"x3.4")

**Weight:** 160g (5.47 oz)

**Materials:** Titanium and Epoxy coating

**Accessories:**
- included: 840017 Swagelok plug SS-200-P
- not included: Cable to RCM 9/11, RDCP 3854, RS-232 Sensor Cable 4762<sup>[7]</sup>/4865<sup>[8]</sup>, Cable to data logger 4139/4941/4946

Note! If deployed at higher pressure than the range of the pressure sensor, the pressure port must be closed by use of the Swagelok plug SS-200-P (stock no. 840017).

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**PIN CONFIGURATION**

<table>
<thead>
<tr>
<th>Receptacle, exterior view</th>
<th>bushing</th>
<th>4</th>
<th>Bridge voltage (BV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR10 (Temperature)</td>
<td>-9Vcc</td>
<td>3</td>
<td>5 Reservoir, DNC&lt;sup&gt;[6]&lt;/sup&gt;</td>
</tr>
<tr>
<td>Control voltage</td>
<td></td>
<td>9</td>
<td>SR10 (Pressure)</td>
</tr>
<tr>
<td>Ground&lt;sup&gt;[1],[4]&lt;/sup&gt;</td>
<td></td>
<td>2</td>
<td>TXD (RS-232)</td>
</tr>
<tr>
<td>Positive supply&lt;sup&gt;[2],[4]&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td>RXD (RS-232)</td>
</tr>
</tbody>
</table>

<sup>[1]</sup> DNC: Do Not Connect
<sup>[2]</sup> Supply for SR10 Operation
<sup>[3]</sup> Ground for SR10 Operation
<sup>[4]</sup> Supply for RS-232 Operation
<sup>[5]</sup> Ground for RS-232 Operation

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The above specifications are for the stand-alone sensor only, not the installation it is utilized with.

Specifications subject to change without prior notice.

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