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Let's Solve Water

Temperature Sensor 4060/4060R

is a compact fully integrated sensor for measuring the water temperature. The 4060 sensor is designed to be mounted on the Aanderaa SeaGuard top-end plate or connected to SmartGuard using AiCaP CANbus or in other measurement systems using the RS-232 interface. The 4060R sensor is designed for use with long cables by means of RS-422 full duplex interface.

Temperature Sensor 4060 advantages:

- *Smart Sensor technology*
- *Plug and Play Sensor*
- *Calibration coefficients are stored in the sensor*
- *Depth rating of 6000 meters*
- *Short response time, less than 2 seconds*
- *Rugged and Robust with minimal and simple maintenance needs*
- *Resolution: 0.001°C*
- *Output format 4060: AiCaP CANbus, RS-232*
- *Output format 4060R: RS-422*

The Temperature Sensor 4060 is an intelligent sensor designed to be used on Aanderaa SeaGuard Platform or SmartGuard logger as well as in other measurement systems with RS-232. The sensor is based on A thermistor-bridge. A Digital Signal Processor controls the sampling of the bridge and calculates the calibrated temperature in engineering units. The sensor is housed in a rugged titanium cylinder.

When mounted onto an Aanderaa SeaGuard or SmartGuard Platform, the sensor output signal is by default engineering data. Raw data can be selected as additional output.
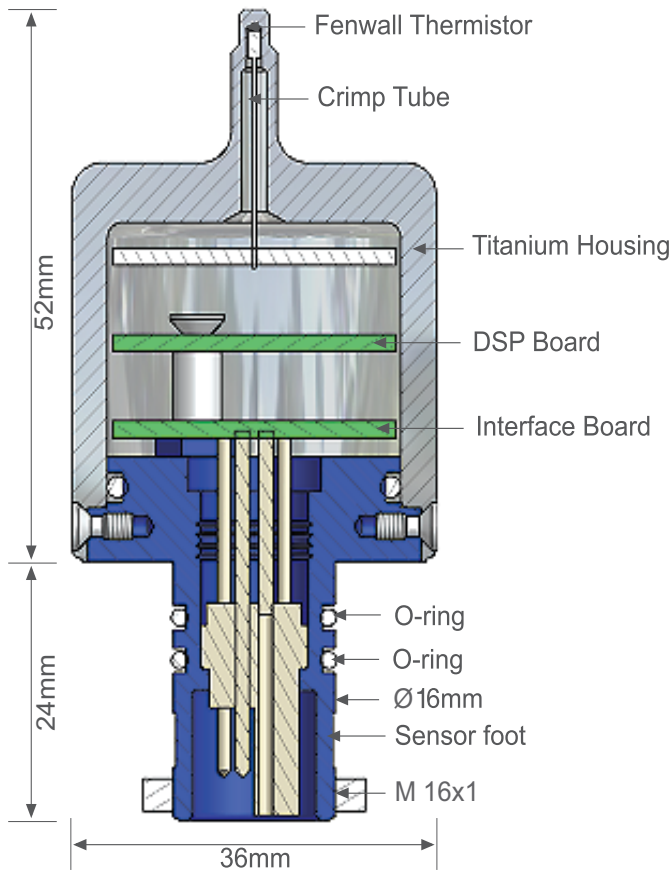
4060 sensor data is also available as RS-232 output and 4060R as RS-422 when used as stand alone sensor in integration with other dataloggers.

The SmartGuard/SeaGuard and the smart sensors are interfaced by means of a reliable AiCaP, CANbus interface using an XML based protocol. The smart sensors can be mounted directly on the top-end plate of the Aanderaa SeaGuard and are automatically detected and recognized
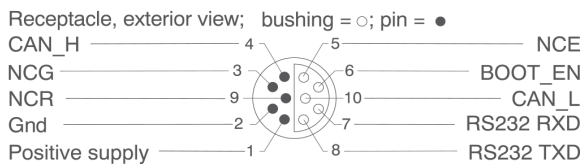
The 10-pin receptacle in the sensor foot mates with Aanderaa SP plug giving access to output.

For connection to a Personal Computer (PC) Sensor Cable 4865 can be used for 4060 and 4799 for 4060R. They are furnished with a watertight 10-pin plug at the sensor end. An additional USB plug is used for providing power to the sensor.
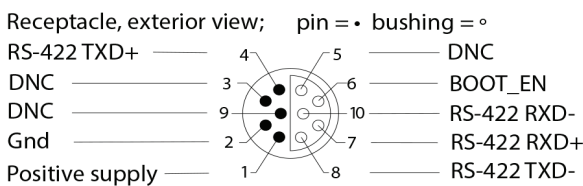
AANDERAA

a **xylem** brand

Specifications

Fenwall Thermistor
Crimp Tube
Titanium Housing
DSP Board
Interface Board
O-ring
O-ring
Ø 16mm
Sensor foot
M 16x1

52mm
24mm
36mm

PIN CONFIGURATION 4060

Receptacle, exterior view; bushing = ○; pin = ●

CAN_H	4 — 5	NCE
NCG	3 — 6	BOOT_EN
NCR	9 — 10	CAN_L
Gnd	2 — 7	RS232 RXD
Positive supply	1 — 8	RS232 TXD

PIN CONFIGURATION 4060R

Receptacle, exterior view;   pin = • bushing = ○

RS-422 TXD+	4 — 5	DNC
DNC	3 — 6	BOOT_EN
DNC	9 — 10	RS-422 RXD-
Gnd	2 — 7	RS-422 RXD+
Positive supply	1 — 8	RS-422 TXD-

Ordering information: *Remember to select Operating Depth (SW, IW or DW) when ordering.*

Temperature:

Range:	-4 – 36°C (24.8 – 96.8°F)[1]
Resolution:	0.001°C (0.0018°F)
Accuracy:	±0.03°C (0.054°F)
	±0.01°C (0.018°F)[2]
Response Time (63%):	<2 seconds

Output format:

4060:	AiCaP CANbus, ASCII RS-232[3]
4060R:	RS-422[3]

Sampling Interval: 1 sec – 255 min

Supply voltage: 6 to 14Vdc

Current drain (@ 9V):

Average (Serial):	14mA/S +0.25mA where S is the sampling interval in seconds
Maximum (Serial):	50mA
Quiescent:	0.25mA

Operating temp.: -5 to +40°C (23 – 104°F)

Operating depth:

Shallow Water:	0 - 300m (0 - 984.3 ft)
Intermediate Water:	0 - 3000m (0 - 9 845 ft)
Deep Water:	0 - 6000m (0 - 19 690 ft)

Electrical connection: 10-pin receptacle mating SP (Sealing Plug)

Dimensions (DxH): OD: 36 x 76mm (OD: 1.4"x3")

Weight: 120g (4.23oz)

Materials: Titanium and Epoxy coating

Accessories:

not included:	RS-232 Sensor Cable 4762[4]/4865[5]
	RS-422 Sensor Cable 4763[4]/4799[5]
	Real-Time Collector 4807A

[1] *Extended calibrated range available on request.*
[2] *Available on request*
[3] *9600 baud, 8 data bits, 1 stop bit, No parity, Xon/Xoff Handshake*
[4] *SP Cable with free end for real-time data*
[5] *SP Cable to PC with 9pin D-sub for real-time data*

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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