

SINCLINO 200
SUBSEA INCLINATION
SENSOR
PRODUCT SHEETS

Sinclino 200: Single-axis subsea inclination sensor designed to withstand harsh operating conditions



SELECTION & OPTION LIST

For Sinclino 200 the following configuration items must be determined:

- **Sensor type.** Seatools can deliver the Sinclino 200 with two different sensors: sensor A is executed with magnetic damping and is therefore extremely suitable for vibration-intensive environments such as those of cutter ladders. The alternative sensor, sensor B, provides extremely high accuracy levels and was designed for applications that are not or less subjected to vibration.
- **Measurement range.** For sensor A, inclination angles of up to 360° are possible. For sensor B, inclination angle ranges of up to $\pm 70^\circ$ are possible. However, in case a smaller rotation range is required, both sensor types will be set to a narrower range in order to maximize measurement accuracy.
- **Data output format.** In case the Sinclino is executed with sensor A, the following data output formats are available: 4 – 20 mA, 0 – 5 V, and RS 232. For sensor B, the following data output formats are available: 4 – 20 mA, 0 – 5 V, RS 232, and RS 485.

The following features are optional:

A Connector type

By default, the sensor is supplied with a SubconnDIN Metal Shell 4-pole connector. Other connector types are available on request.

B Cable assembly

The sensor can be supplied with custom-made cabling in a variety of lengths, allowable loads, and connector types.



Subconn® Metal Shell 4-pole Male

TYPICAL APPLICATIONS

The Sinclino 200 is specifically designed to perform accurate inclination measurement. The sensor can be installed on equipment operating in harsh subsea environments, including:

- Dredging equipment such as suction tubes and cutter ladders
- Trencher jet knives
- ROVs



SINCLINO 200 SUBSEA INCLINATION SENSOR SPECIFICATIONS

GENERAL

	METRIC	IMPERIAL
Main dimensions	See detailed drawings	
Material housing / shaft	Stainless steel 316L	
Weight in air	± 9 kg	± 19.8 lbs
Maximum working depth	200 m	656 ft
Operational temperature range	-20°C - +50 °C	-4 °F - +122 °F

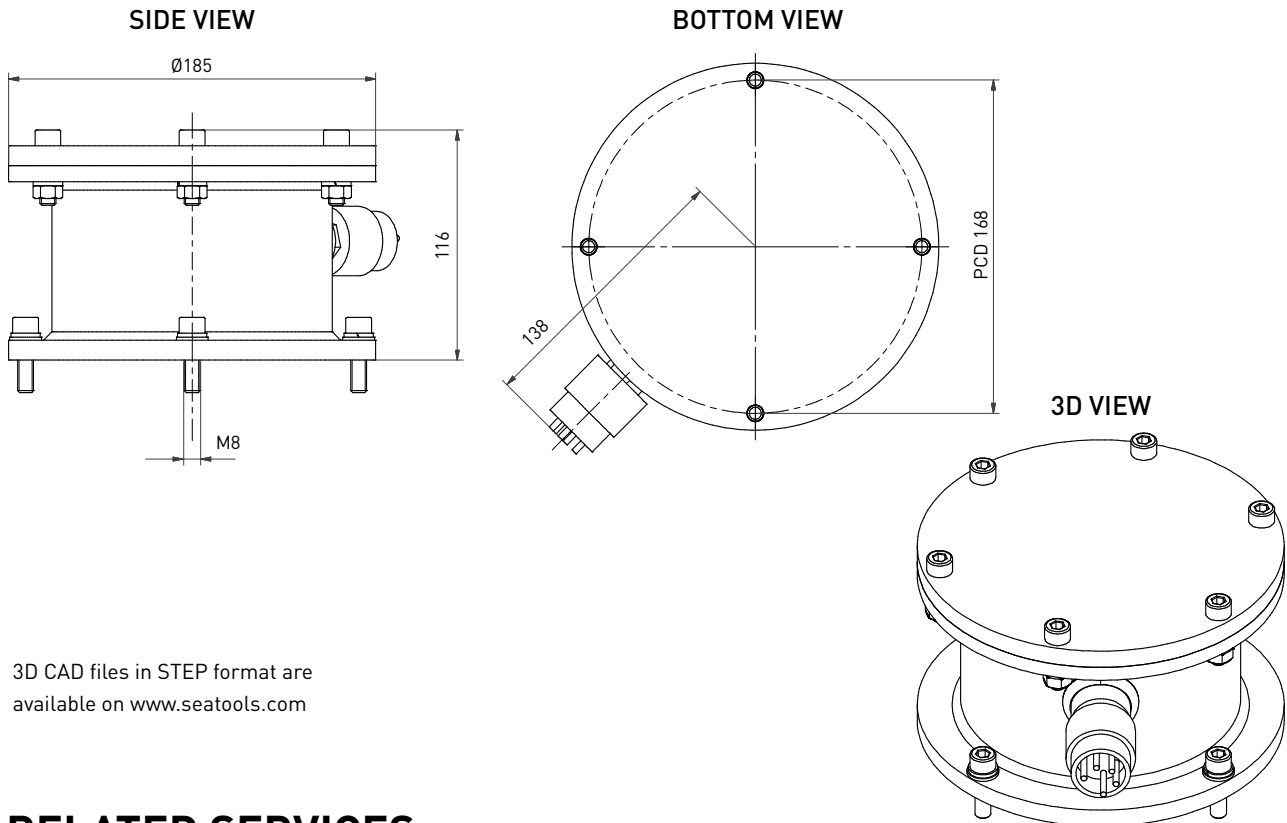
ELECTRICAL – SENSOR A

Supply voltage	18 -30 VDC
Output signal	4 – 20 mA, 0 - 5V, RS 232
Current consumption	45 mA
Maximum measurement range	0 - 360°
Resolution	0.088°
Maximum non-linearity	< 0.1°
Maximum temperature coefficient zero	0.04°/10K
Maximum temperature coefficient span	0.04°/10K

ELECTRICAL – SENSOR B

Supply voltage	9 -30 VDC
Output signal	4 – 20 mA, 0 - 5V, RS 232, RS 485
Current consumption	< 35 mA (voltage output), < 60 mA (current output)
Maximum measurement range	± 70°
Resolution	0.002% of FS (digital output) & 0.01% of FS (analog output)
Maximum non-linearity	< 0.02% of FS
Maximum temperature coefficient zero	0.005% of FS/°C
Maximum temperature coefficient span	0.01% of signal/°C

DIMENSIONS



3D CAD files in STEP format are available on www.seatools.com

RELATED SERVICES

Client advisory

During the selection process, we consult clients to ensure they opt for the right inclination sensor. In our recommendation we take into consideration measurement range, required accuracy, system setup, data communication, mounting possibilities, vibrations, and other factors that are relevant to your case.

Custom-made versions

Next to our standardized series, Seatools offers custom-made subsea inclination sensors that are tailored to your specifications. Please contact our sales department to request a customized inclination sensor.

Subsea monitoring & control systems

Next to the delivery of stand-alone sensors, we can deliver full-fledged subsea monitoring systems, including all related systems such as mechanics, software, electronics, and controls.

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