

**ROTAX® HD DIGITAL
SUBSEA ROTATION
SENSOR
PRODUCT SHEETS**

Rotax® HD Digital: subsea rotation sensor designed to withstand harsh operating conditions



SELECTION & OPTION LIST

For every Rotax® HD Digital the following configuration items must be determined:

- **Rotation angle range.** The sensor can be supplied in either a single-turn or multi-turn version.
- **Data output format.** The Rotax® HD Digital can provide the following data output formats: SSI, CAN bus, Profibus, RS 422 / 485, and EtherCAT.
- **Connector type.** The sensor is typically supplied with Subconn® connectors. Other connector types are available upon request.

The following features are optional:

A Shaft clamp

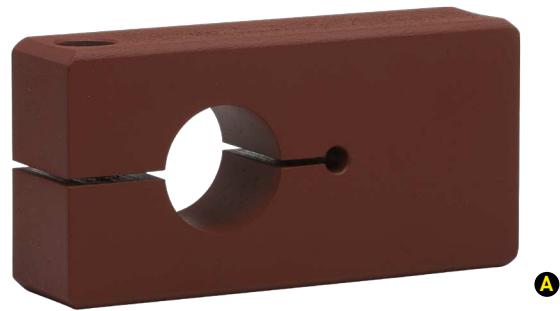
This shaft clamp, to be bolted onto the sensor shaft, can be used to connect (via a welded connection) to a lever to establish a mechanical connection to, for example, a crane boom.

B Cable assembly

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



Subconn® Micro 6-pole Male



TYPICAL APPLICATIONS

The Rotax® HD Digital subsea rotation sensor is specifically designed to perform accurate rotation measurement. The sensor can be installed on equipment operating in harsh subsea environments, including:

- Dredging equipment such as booms, bucket angles, and suction tubes
- Offshore structures such as A-frames
- Heavy-duty cranes
- Winches



ROTAX® HD DIGITAL SUBSEA ROTATION SENSOR SPECIFICATIONS

GENERAL

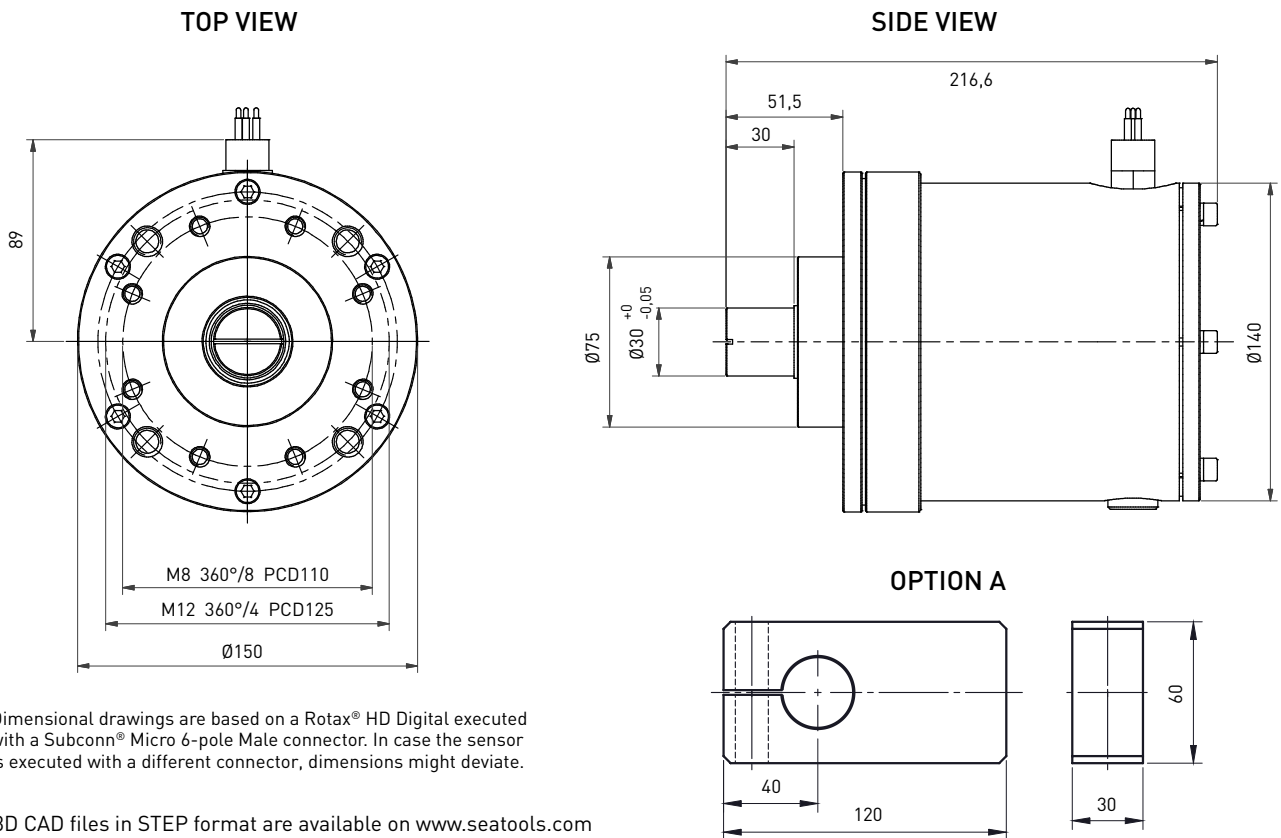
	METRIC	IMPERIAL
Main dimensions	See detailed drawings	
Material housing / shaft	Stainless steel 316L / 431	
Weight in air	± 12.5 kg	± 27.6 lbs
Maximum static axial shaft load	5 kN	1124 lbf
Maximum static radial shaft load	6 kN	1349 lbf
Maximum working depth	100 m	328 ft
Operational temperature range	-10°C - +60 °C	14 °F - +140 °F

ELECTRICAL – PROFIBUS DATA OUTPUT

Supply voltage	10 - 30 V DC
Current consumption	230 mA (max.)
Maximum resolution	Single turn: 16 bits, Multi turn: 14 bits
Output code	Profibus DP
Connector	Subconn® Micro 6-pole Male
Transmission rate	0,0096 - 12 Mbit/s

Electrical specifications of HD Digital sensors executed with other data output formats are available upon request.

DIMENSIONS



Dimensional drawings are based on a Rotax® HD Digital executed with a Subconn® Micro 6-pole Male connector. In case the sensor is executed with a different connector, dimensions might deviate.

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 Rotax® 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 rotation sensors that are tailored to your specifications. Please contact our sales department to request a customized angle 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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