ROW SERIES SUBSEA ROTATIONAL MEASUREMENT TRANSDUCER DATASHEET

Subsea rotational measurement transducers for 360° measurement

Rota's new Subsea Rotational Measurement transducers for continuous zero-contact angle monitoring.

BENEFITS

- Through hole allows rotating shafts to be monitored
- Pressure-balanced oil-filled hoses (PBOF), penetrator cables etc. can be run through the centre
- Hydraulic hoses/pipes etc. are easily accommodated
- High reliability - no rotating seals used

PERFORMANCE

- 0.2° resolution
- Full 360° measurement
- Up to 700 rpm measurement
- Absolute signal output
- Solid-state, zero wear

ENCLOSURE

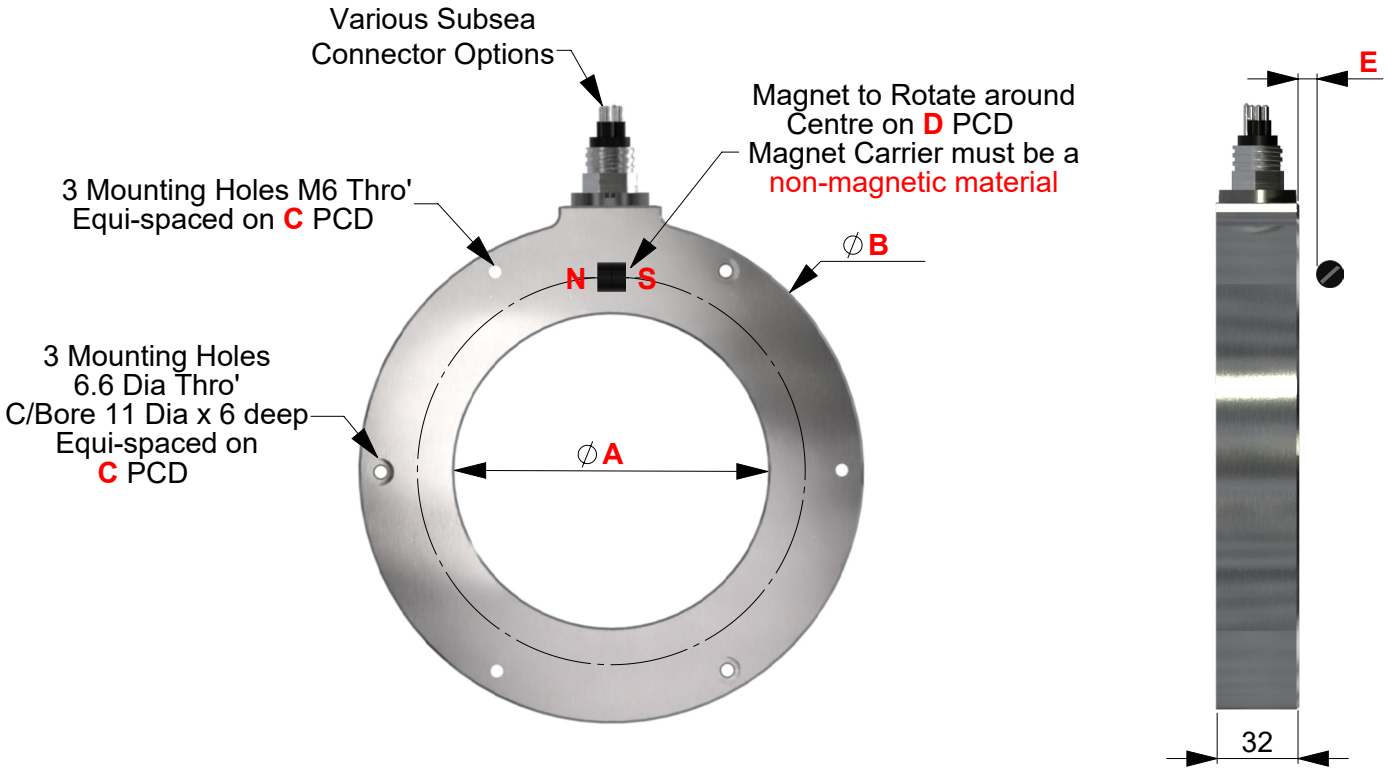
- Stainless Steel 316L double-sealed enclosure
- Encapsulated electronics
- 3000 metres max. operating depth*
  *Pressure/depth ratings are subject to subsea connector rating
- Three sizes available - 71, 121, or 171 mm through hole. See page 2.

OUTPUTS

- Analogue Voltage/Current/PWM options
- CANbus SAE J1939, CANopen and ISOBUS

TERMINATION

- Compatible with most subsea connectors - over 100 types of connector used (on our linear sensors)
- Connector can be mounted either on OD (as shown) or on 4-position side block



A - Sensor ID (mm)	B - OD (mm)	C - Mounting Holes PCD (mm)	D - Magnet PCD (mm)	E - Magnet Separation (mm)*
71	145	128	99	3 ±2
121	195	178	149	7 ±3
171	245	228	199	

*Magnet separation tolerance can be increased with lower resolution.
Magnet distance is dependent on the clearance from sensor and magnet to other magnetic material.
Please contact Rota for more info.

ROW transducers can be supplied with subsea connectors in various orientations.

ROW	121	360	R2	0.2	A	R	2	F	1234

ROW Series
Subsea Rotational Measurement Transducer

Inside Diameter (mm)
71, 121, or 171

Measurement Angle (°)

Magnet
R0 = 10.5 mm diameter, 5 mm long magnet

Measurement Resolution (°)

Output Signal

A	= Current 4 to 20 mA (3 Wire)	(13 to 32 V Input)
B	= Current 4 to 20 mA (3 Wire)	(10 to 18 V Input)
C	= Voltage 0.5 to 3.5 V	(4 to 10 V Input)
F	= Voltage 0.25 to 4.75 V	(9 to 32 V Input)
G	= Voltage 0.5 to 4.5 V	(9 to 32 V Input)
H	= Voltage 0.5 to 10.0 V	(13 to 32 V Input)
J	= CANbus SAE J1939	(9 to 32 V Input)
L	= Voltage 0.5 to 4.5 V	(5 to 10 V Input)
O	= CANopen	(9 to 32 V Input)
P	= P.W.M 500 Hz	(9 to 32 V Input)
R	= Voltage 0.5 to 4.75 V	(9 to 32 V Input)
T	= Current 4 to 20 mA (2 Wire)	(11 to 28 V Input)
V	= Voltage 0.5 to 5.0 V	(9 to 32 V Input)
Z	= ISOBUS	(9 to 32 V Input)

Optional
R = reversed signal

Unique Transducer Calibration Number

Connector Orientation
F = On OD of sensor (no connector block)
9L = 90° horizontally left (on connector block)
9R = 90° horizontally right (on connector block)
9U = 90° vertically up (on connector block)
9D = 90° vertically down (on connector block)
See diagram on page 2.

Example Electrical Termination

Subconn
0 = BH6M Brass
1 = MCBH3M Brass
2 = MCBH3M SS

Seacon
4 = 5507 1503
6 = BH4MPSS
27 = 5507 1504
28 = 5507 1508

Burton
5 = 5507 1503
7 = 5507 1508

Impulse
67 = MCBH3M SS

CRE
100 = CS MSSJ-3-BCR

Connectors from other manufacturers are available. For a full comprehensive list of all connectors we may be able to offer, see LJW DS pgs 9&10.