

SUBSEA MOTION SENSORS



OUTSTANDING PERFORMANCE IN ALL CONDITIONS

FEATURES:



0.02°
ROLL &
PITCH



6,000 M
DEPTH
RATING



WEIGHING
ONLY
1.5 KG

NORSUB SERIES



HIGH ACCURACY

ROLL, PITCH, HEAVE & HEADING

NORSUB subsea motion sensors use state-of-the-art MEMS technology and groundbreaking, new sensor fusion algorithms to provide real-time roll, pitch and heave at high frequencies. NORSUB sensors have very good performance in dynamic and irregular motions.



LOW POWER CONSUMPTION

ONLY 6 W

NORSUB motion sensors are tailor-made for subsea applications where low power consumption, high accuracy and ease of use are important. The low power consumption enables long term field deployment.



COMPACT & PORTABLE

ONLY 1.5 KG

The NORSUB series comes at a fraction of the size and weight of traditional subsea motion sensors. This gives more flexibility in subsea surveys, installation work and asset integrity applications. The low size and weight opens new possibilities for use on smaller structures and vehicles.



AFFORDABLE

TAILORMADE FOR SUBSEA APPLICATIONS

NORSUB motion sensors are the most compact 6,000 m. subsea motion sensors available. They combine high dynamic accuracy, low power consumption and robustness at an affordable price.

NORSUB SPECIFICATIONS

PERFORMANCE

PARAMETER	MRU 7000 SUBSEA	MRU 4000 SUBSEA	REMARKS
Roll & Pitch	+/- 0.02°	+/- 0.05°	RMS (Dynamic)
Heading (Optional)	+/- 0.5°	+/- 0.5°	Magnetic heading
Heave (Real-time)	5.0 cm or 5.0 %	5.0 cm or 5.0 %	Whichever is greater
Rotation speed range	+/- 450°/s	+/- 150°/s	-
Acceleration range	+/- 4 g	+/- 3 g	-
Output Frequency	0 - 100 Hz	0 - 100 Hz	Adjustable output frequencies

POWER & INTERFACES

PARAMETER	MRU 7000 SUBSEA	MRU 4000 SUBSEA	REMARKS
Power Consumption	6 W	6 W	-
Supply Voltage	9 - 36 V DC	9 - 36 V DC	24 V DC Nominal
Ports	Ethernet, RS-232, RS-485 (422), 2 x Sync	Ethernet, RS-232, RS-485 (422), 2 x Sync	-
Protocols	NMEA, ASCII, Binary, Atlas, Gyrocompas 1, Ifremer Victor, MDL, Simrad EM 3000, SMCA, SMCC, TSS1 ++		Wide range of protocols included, see separate list
Connector	SubConn FCR 1508F or Seacon MIN-M 26 #20		-

PHYSICAL CHARACTERISTICS

PARAMETER	MRU 7000 SUBSEA	MRU 4000 SUBSEA	REMARKS
Weight (air/water)	1.5 kg / 0.9 kg	1.5 kg / 0.9 kg	-
Diameter/Height	7.0 cm / 16.5 cm	7.0 cm / 16.5 cm	Mounting plate 7.6 x 7.6 cm
Depth Rating	6,000 m	6,000 m	Titanium subsea housing
Application Examples	BOP & riser monitoring, installation & verticality surveys, underwater navigation, asset integrity, tie-in structures etc.		