

SUBSEA SENSOR TECHNOLOGY

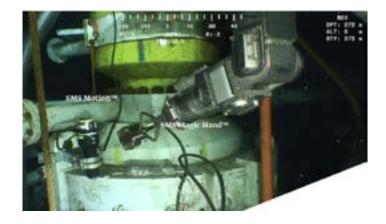
# SMS Magic Hand™ Seafloor to topside in seconds

## **Technical Data Sheet**

SMS Magic Hand<sup>™</sup> is an ROV-carried modem that can be used to configure and download data wirelessly from Smart Monitoring Sensors (SMS) when the sensors are deployed subsea. Raw data or statistical data can be downloaded from the sensor by a simple mouse click on a topside computer.

The modem has a rugged design, can be equipped with a protective bumper structure made of rubber, and comes with a fishtail adapter with flex joint. A cable connects the SMS Magic Hand<sup>™</sup> modem to the ROV for power supply and serial data connection to the umbilical system.

SMS Magic Hand™ also exists in an office version for data download from SMS sensors in office environment.



**4subsea** helps operators reduce the cost of operations and maximize the life of assets using autonomous sensors in combination with data analytics and specialist engineering competence. Products in the Smart Monitoring Sensors (SMS) range are SMS Motion<sup>™</sup>, SMS Strain<sup>™</sup>, SMS Magic Hand<sup>™</sup>, SMS Gateway<sup>™</sup>, SMS ComCentral<sup>™</sup>, and SMS Guard<sup>™</sup>. Technology applications include monitoring of wellhead integrity, risers, mooring lines, subsea spools and manifolds, as well as monitoring of pipelines and subsea structures for oil & gas and offshore wind sub-structures.



SMS Magic Hand<sup>™</sup> office version



SMS Magic Hand<sup>™</sup> for offshore use

More product information —

#### PORT

Type RS485, two-wire, half duplex or RS232, 3-wire (alternative configuration) Baud rates: 9600, 19200, 38400, 57600, 115200 Connector: Seacon, 5-pins, CS-MS-BCR bulkhead Pinout Pin1 = +24V, Pin2 = NC, Pin3 = LINE+/ROV-TX, Pin4 = LINE+/ROV-RX, Pin5 = GND (RS485/RS232)

#### **POWER SUPPLY**

Input voltage: +6.0V to +26V Current consumption: <2mA average (<15mA peak current at power up)

### **OPTICAL COMMUNICATION PORT**

Range: 0.5m to 1.0m in water (6m in air) Baud rate: 115200 Mode of operation: Half duplex Wavelength: 890 nm Eye safety: Class 1 (IEC60825-1), i.e., eye-safe under all operating conditions Directionality: +/- 14° in air and +/- 11° in water

#### **LED INDICATOR**

**Type:** Red LED (power-up indicator, visible through the optical lens)

#### **ENVIRONMENTAL**

Design Temperature -18°C to 70° C Test Temperature -18°C to 70° C Operating temperature -5°C to 40° C Storage temperature -18°C to 50° C Pressure rating 3000m water depth

#### HOUSING

Material: Stainless steel 316L Length: 77 mm Diameter: 114 mm Weight in air: 5.1 kg Weight in water: 4.3 kg

#### HOUSING (OFFICE VERSION)

Material: Aluminum Dimensions: 112 x 60 x 42 mm Weight: 310g Serial cable length: 1.8 m

The sensor is designed and tested in accordance with ISO13628-6, API 17F.

**4Subsea** is a leading provider of technology and services that help operators optimise energy production from subsea oil & gas fields and offshore wind farms. We combine domain expertise with data analytics and digital services to maximise lifetime of assets, reduce operational cost and optimise future projects through data-driven design.

The company was established in 2007 and clients include the major energy operators as well as the large suppliers of subsea equipment. 4Subsea is headquartered in Asker, Norway with additional offices in Bergen, Kristiansand, Stavanger, Rio de Janeiro, Kraków and Aberdeen. 4Subsea is a company in the Subsea 7 Group.

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