

SMS Magic Hand™

Seafloor to topside in seconds

Technical Data Sheet

SMS Magic Hand™ 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™ 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™, SMS Strain™, SMS Magic Hand™, SMS Gateway™, SMS ComCentral™, and SMS Guard™. 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™ office version



SMS Magic Hand™ 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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