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 cost of operations and maximise 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.
Port
Type RS485, two-wire, half duplex or RS232, 3-wire (alternative configuration)
Baud rates 9600, 19200, 38400, 57600, 115200
Connector Seacan, 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
Operating temperature 0° C to 30° C
Storage temperature -5° 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

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4Subsea is a leading provider of technology and services that help operators maintain production from subsea oil and gas fields and offshore wind farms. By combining expert engineering competence, practical experience and a digital service, we ensure the integrity of assets all the way from reservoir to deck.

The company was established in 2007 and clients include all the major oil and gas operators as well as the large suppliers of subsea equipment. 4Subsea is headquartered in Asker, Norway with additional offices in Bergen, Kristiansand, Stavanger, Macaé, and Rio de Janeiro, and with local presence in Aberdeen and Perth. More info at www.4subsea.com.

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