

SMS ComCentral™

Bringing sensor data to the cloud



Technical Data Sheet

ComCentral™ is used for configuration and management of the Smart Monitoring Sensors (SMS). It can also be used to collect data from sensors and control nodes via industrial bus protocols. The unit allows for offshore configuration of all SMS sensors and for transferring data from SMS sensors to DataReservoir.io™. It can act as a data hub for collecting data from multiple data sources that are to interface with DataReservoir.io™.

ComCentral™ provides a local management interface used by ROV operators when handling subsea SMS sensors. In addition it provides secure remote operation for 4Subsea personnel. This enables safe configuration and management of the SMS sensors by onshore experts.

Processor/Memory

Type **AMD A10 Micro-6700T SoC**
Cores **64-bit Quad Core**
Clock Speed **1.2GHz (boost up to 2.2GHz)**
Memory **8GB**
HD **120 GB SSD**

Networking

LAN **Gigabit Ethernet**
Wireless **WLAN 802.11ac (2.4/5GHz)**
Bluetooth 4.0

I/O Ports

USB **2x USB 3.0 + 3x USB 2.0**
LAN **2x RJ-45 GbE**
Display **2 x HDMI**
Audio **2x 3.5mm jack (Analog or S/PDIF)**
Serial **1x RS232 (via mini serial connector)**
SD **Micro-SD slot (SD/SDHC)**

Operating Conditions

Input Voltage **Unregulated 10 - 15VDC**
Power Consumption **4.5W - 10.5W**
Operating Temperature **-20°C to 70°C**
Relative Humidity **10% - 90%**
MTTF **> 100.000 hours**

Enclosure

Material **Aluminum & Zinc (all-metal housing)**
Cooling **Passive Cooling with Heatsink**
Length **120mm (exclusive WIFI antenna)**
Depth **90 mm**
Height **38mm (exclusive DIN-rail mount)**
Weight **440g**

Accessories

Power supply **Input 100-240VAC 50/60Hz, 36W**
Output 12VDC 3A
Attachable NA and EU plugs
Display **HDMI to DVI adapter**
Serial **Mini-serial to DB9-male adapter**
Mounting **DIN-rail mount**

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.

Ruggedised computer

ComCentral™ is a ruggedised miniature fanless computer in an all-metal housing. It provides excellent durability at extreme temperatures and conditions of shock, vibration and dust.



Other relevant sensors in the SMS (Smart Monitoring Sensors) portfolio

SMS Motion™ - Autonomous and retrofittable motion and vibration sensor

SMS Motion™ is an autonomous subsea sensor and data logger containing a 3-axis MEMS accelerometer and a 3-axis MEMS gyroscope, rated for 3000 m water depth. The sensor can be configured to operate at frequencies from 10 Hz up to 1024 Hz, depending on the application. The sensor's low power consumption allows for continuous logging at 10 Hz for more than 360 days.

SMS Gateway™ - Connecting sensors to the cloud

The SMS Gateway™ is an IoT sensor for motion monitoring as well as a hub for data collection and streaming to the cloud. The sensor is easily installed and only requires external power and internet access through LAN or WiFi. Once connected, the sensor automatically starts streaming data to the cloud, where the data is made available through an open API.

SMS Magic Hand™ - Seafloor to topside in seconds

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.

SMS Strain™ - Retrofittable strain sensor

The patent pending SMS Strain™ is an autonomous, retrofittable strain sensor that can be easily installed. The sensor measures dynamic strain with high resolution (better than 1 µStrain) and accuracy. Like all 4Subsea SMS sensors, the SMS Strain™ has extremely low power consumption, enabling continuous logging and data storage at 10 Hz sampling frequency for more than 360 days.



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.

4Subsea - Share ideas, move forward

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