



DMS

DMS-xD Diver Monitoring System

The **Diver Monitoring System** is a fully self-contained, depth and data logging solution designed for user-friendliness and seamless functionality. No additional software is required, as the DMS operates entirely through an intuitive dashboard accessible via your phone, tablet, or computer. Whether you connect through Wi-Fi or an ethernet cable, the DMS makes it easy to stay connected and monitor your dives.

Key Features:

User-Friendly Dashboard: The DMS dashboard is the main interface for interacting with the system. It's accessible through any device's browser as long as you're connected to the same network. You can either connect via the DMS's own Wi-Fi network (which acts as an access point) or through an existing network.

Data Management: From the dashboard, you can manage divers, projects, and dive data, all stored in a centralized database. The system allows you to:

- Start and monitor dives
- Add relevant information during a dive
- Download dive logs directly as PDFs with a single click

Touchscreen Display: The DMS also includes a 3.5" touchscreen display for local interaction. While basic dive functions like starting and stopping a dive can be done from this display, more advanced settings like adding divers and projects are managed through the browser-based dashboard.

Robust Design: Housed in durable plastic with sensor connections at the back, the DMS shares the same housing as the previous DDG2 system, making it easily replaceable. Its 50Wh battery supports at least 6 hours of operation, while the 8GB of industrial-grade storage holds over 10,000 hours of dive data.



Sensor connections per diver:

Depth sensor	A digital depth sensor. This can be either a HART or a 4-20mA sensor.
Oxygen	An oxygen cell that measures the oxygen percentage in the divers breathing gas.
Input switch	A input switch for a alarm. For example: a pressure switch that guards the pressure of the divers air.
Extra sensor 1	A sensor port that can be used for various purposes. For example, as a air supply or deco tank sensor
Extra Sensor 2	A sensor port that can be used for various purposes. For example, as a second depth sensor



Touchscreen
The DMS will have a 3.5" daylight touchscreen. This makes the system userfriendly and interactable.

3

Divers
The DMS can support up to 3 divers with 4 sensor per diver



Database
Each DMS will have an internal database that will store each recorded dive, divers, project and other information.



Wifi Network
The DMS will create its own wifi network. Devices can connect to this network to enter data, retrieve files or to view the database.



Battery
The DMS will have an internal battery capable of powering the device for at least 6 hours.



Oxygen sensor
It will be possible to connect an external oxygen cell per diver. This oxygen cell will measure the oxygen percentage in the divers breathing gas. This data can be displayed and logged. An alarm can also be set on a minimum/maximum percentage.



Double Ethernet
The DMS will have a double ethernet port with a switch. This makes connecting multiple DMS's much simpler.



Project based Logging
Different projects can be set up in the DMS. A project must be chosen with each dive and will log the corresponding project data, such as location, client, scope and more.



Replaceable
The DMS can replace the previous generation Digital Depth Gauge.



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The Diver Monitoring System (DMS) dashboard is your central control hub for managing, monitoring, and logging dive-related data. Designed for user-friendly operation, it can be accessed from any web browser on your phone, tablet, or computer, making it simple to interact with the system.

The dashboard enables users to manage dives with ease. Before starting a dive, you can input important details such as diver names, project information, dive objectives, equipment, and expected conditions. All of this information is automatically stored and logged for future reference, ensuring that every dive is thoroughly documented.

During a dive, the dashboard provides real-time monitoring of critical data such as depth, events, and alarms. This allows dive supervisors to maintain a comprehensive view of the dive in progress, ensuring safety and efficiency. Events can be logged throughout the dive, using either predefined labels or custom labels tailored to the specific operation.

The DMS dashboard offers high flexibility, allowing users to customize data fields and adjust settings to match the needs of each dive. This adaptability makes the system suitable for a variety of underwater operations, offering both depth of functionality and ease of use.

NOVASUB

DMS - Depth Monitoring System

13-03-2026 09:18

Hello Admin

Cancel

00:00:00

DIVER 1

Diver Name

first2 last2

Alarm

Stop Dive

Depth

15.9 MSW

Ascent

0.0

Bottom Time

2 min

Max Depth

16.2 MSW

Timestamps

Left Surface

09:16:13

At Bottom

09:16:48

Left Bottom

00:00:00

At Surface

00:00:00

Dive Time

2:04 min

Events

Free Text

On Backup Supply

On Bailout

Custom 1

Custom 2

Custom 3

Last Event: 09:17:55 Custom 1

Decos

Deco 9m

00:00:00

Deco Time

00:00:00

Deco 6m

00:00:00

Deco Time

00:00:00

Deco 3m

00:00:00

Deco Time

00:00:00

Oxygen

O₂

21.5 %

EAD

0.0 MSW

PPO₂

0.0 Bar

Customs

S1

0.0 Bar

S2

0.0 mBar

DIVER 2

Diver Name

first3 last3

Alarm

Stop Dive

Depth

15.9 MSW

Ascent

0.0

Bottom Time

1 min

Max Depth

16.0 MSW

Timestamps

Left Surface

09:17:06

At Bottom

09:17:11

Left Bottom

00:00:00

At Surface

00:00:00

Dive Time

1:11 min

Events

Free Text

On Backup Supply

On Bailout

Custom 1

Custom 2

Custom 3

Last Event: 09:18:01 Custom 2

Decos

Deco 9m

00:00:00

Deco Time

00:00:00

Deco 6m

00:00:00

Deco Time

00:00:00

Deco 3m

00:00:00

Deco Time

00:00:00

DIVE TEAM:

Supervisor

first1 last1

Diver 1

first2 last2

Diver 2

first3 last3

Diver 3

first4 last4

Standby

first3 last3

Lineholder

first5 last5

PROJECT: Project1

Customer

Seascope Production

Project Number

1234

Project Description

Test project

Location

Seascope-NL

SCOPE OF DIVEWORK

Type of Work

Inspection

Dive Surroundings

Open water

Work Description

Test 0.15.6 B11 stijp

DETAILS:

Type of Dive

Surface

Gasmix Name

Air

Helmet

SL27

Deco Table

NDTT ed'6 - Stan...

Gasmix O₂ %

21.0

Suit

Dry suit

Elevation

0

Tool

Hand tools

WEATHER CONDITIONS

Coordinates

Weather

Mool weer

Water Temperature

Koud water

Seastate

Kalme zee

DIVER 1

DIVER 2

DIVER 3

ALL DIVERS

Graph

Legend

Oxygen (%)

Events

Alarms

Depth (MSW)

Depth in msw

Time (HH:mm:ss)

Dive Time (MM:SS)

Table

Time	Dive Time	Event	Alarm	Depth
09:17:53	1:40	Custom 1		16.0
09:16:48	0:35	At Bottom		16.1
09:16:13	0:00	Left Surface		0.0



DMS-xD Diver Monitoring System

The **"Prepare to Dive"** function within the DMS dashboard is designed to make the dive setup process simple, efficient, and customizable. Before each dive, you can input and manage all essential information, ensuring everything is properly documented and ready to go.

In this interface, you will assign divers to their specific roles. For example, you can designate a **Main Diver**, **Second Diver**, and **Standby Diver** with ease, as shown in the interface. For each diver, key details such as surface intervals, representative group, and specific dive function are logged to ensure proper tracking and compliance with operational protocols. Other important dive details include:

Type of work: Select the nature of the job, such as inspections or other operations.

Tooling: Specify the equipment that will be used during the dive, for instance, a camera for inspection tasks.

Dive Conditions: Log dive conditions, such as location (e.g., under a vessel) and other relevant factors.

Project Information: Add the project name, dive depth, seastate conditions, and weather details to fully contextualize the dive.

Once everything is set, a simple press of the "Ready to Dive" button allows you to proceed to the next stage, streamlining the entire dive preparation process.

Prepare To Dive

Dive Team

My Team 1

Dive Supervisor

Cees de Super

Standby

Bert Klep

Lineholder

Gerrit Haalst

DIVER 1

Diver Name

Jan de Duiker

Diver Function

Main Diver

Surface Interval

03

RG

B

DIVER 2

Diver Name

Bert Klep

Diver Function

Second Diver

Surface Interval

00

RG

A

Type of Work

Inspection

Tooling

Camera

Dive Conditions

Under Vessel

Work description

Hull inspection

Dive Details

Standard dive 21m

Project Name

The most fantastic job

Seastate

calm

Weather Conditions

Cloudy

Cancel

Automatic set depth to zero

Set to zero

Verzenden

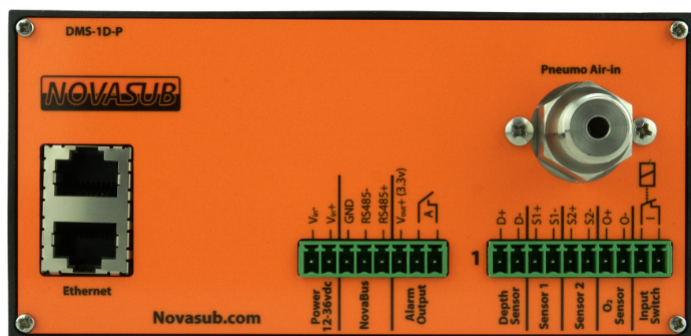
Intuitive Touchscreen Interface

The DMS is equipped with a user-friendly 3.5" touchscreen display, offering real-time dive monitoring and control. The screen provides essential dive information at a glance, including current depth, oxygen levels, dive time, and ascent rate. With easy-to-use buttons like "Start Dive" and "Log Event", divers and supervisors can quickly interact with the system without needing complex navigation. The clear, color-coded display ensures that critical data, such as depth readings and alarms, are easy to read even in demanding underwater conditions. This interface is designed to streamline dive operations while maintaining a high level of safety and accuracy.

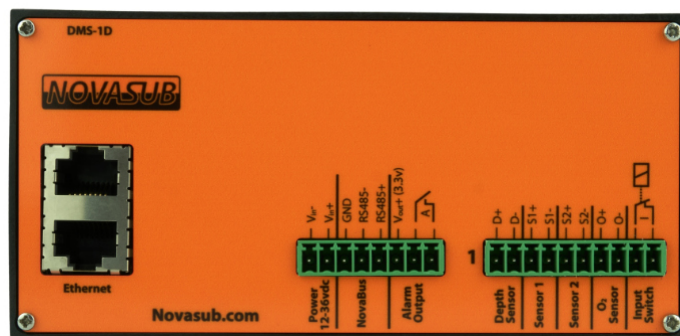


DMS-xD Diver Monitoring System

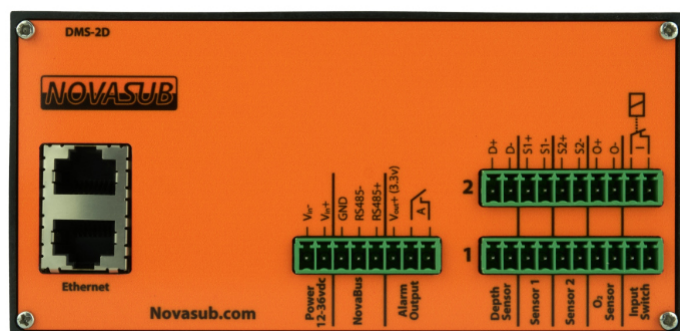
Specifications	1 Diver	1 Diver (pneumo)	2 Divers	3 Divers
Name	DMS-1D	DMS-1D-P	DMS-2D	DMS-3D
Number of divers	1	1	2	3
Screen	3.5" Daylight color touchscreen (480x320 pixels)			
Storage	8 GB of SLC storage (7 GB available for logs)			
I/O				
Ethernet	2x RJ45			
Novabus	1x			
Power Supply	12-36 Vdc, 15 watt			
Alarm Output	1x ¹ Relay			
Depth sensor (4-20mA & HART)	1x	1x	2x	3x
Oxygen sensor (mV)	1x	1x	2x	3x
Input Switch (NC/NO)	1x	1x	2x	3x
Extra sensor 1 (4-20mA)	1x	1x	2x	3x
Extra sensor 2 (4-20mA)	1x	1x	2x	3x
Pneumo coupling	-	1x Male ¼" BSP	-	-
Battery	Li-ion - 50.4Wh			
Runtime	>6 hours			
Width	144 mm			
Height	72 mm			
Depth	68 mm	88 mm	68 mm	
Built-in depth	70 mm	95 mm	70 mm	
Weight	523 g	588 g	535 g	548 g
Notes	1. The alarm can either be powered by the DMS (on 3.3v) or by an external power supply.			



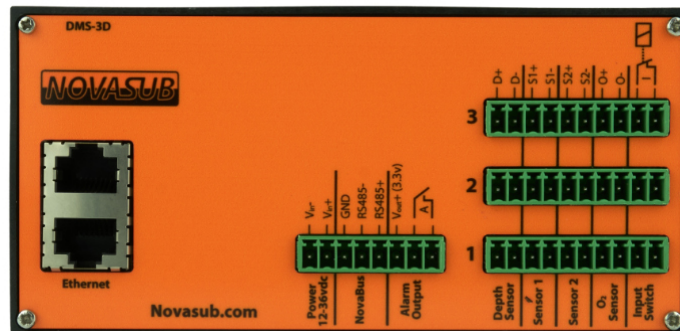
DMS-1D-P Backside



DMS-1D Backside



DMS-2D Backside



DMS-3D Backside



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First Edition Launch

The first edition of the DMS will launch with a robust set of core features designed to streamline dive operations from day one, including:

- Logging users, projects, teams, and dive details
- Monitoring real-time data like depth, oxygen levels, events, and alarms
- Exporting dive logs as PDF reports
- Customizable dashboard and standaard layouts for intuitive interaction

Future Updates

Looking ahead, we have an exciting roadmap for **future updates**, which will include:

- Customizable screen layouts
- The ability to connect multiple DMS units for redundancy and data backup
- Syncing with central or cloud-based databases for secure data storage
- Adding deco tank compatibility for more comprehensive dive management
- Incorporating commonly used dive tables to improve dive planning and safety
- Continuous improvement based on user feedback, adding new features to meet the evolving needs of the subsea industry

Accessoires Compatible with DMS

UDS-3 Digital Depth Sensor

The UDS-3 is the perfect companion for the DMS, providing a compact and efficient solution for depth monitoring. This two-wire pressure sensor operates on the HART protocol and requires only two wires from your existing umbilical to function, making it easy to integrate into your current setup. One of the key advantages of the UDS-3 is that, as a digital sensor, it eliminates the need for system-wide calibration—you only need to calibrate the sensor itself, streamlining both setup and maintenance.

Housed in durable stainless steel with a 3-pin MCBH3MSS connector, the UDS-3 provides accurate depth readings up to 60 meters seawater (msw) or 200 feet sea water (fsw), ensuring reliable performance in all subsea operations.



PDS-1-60 Pneumo Depth Sensor

The PDS-1 is the perfect companion for the DMS, providing a compact and efficient solution for depth monitoring off the Pneumo hose or decompression tank depth. The sensor has a male 1/4" NPT port to for connection to the Pneumo line in your diver gas panel or pressure port of your decompression tank. The PDS-1 is wired to one of the input ports and can be selected as your main or backup diver depth sensor or decompression chamber depth.

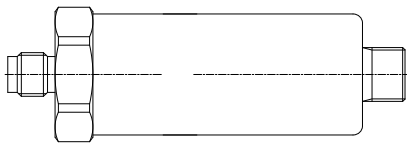
Housed in durable stainless steel with a 4pin M12 connector, the PDS-1 provides accurate depth readings up to 60 meters sea water (msw) or 200 feet seawater (fsw).



PS-1-300 300 Bar pressure Sensor

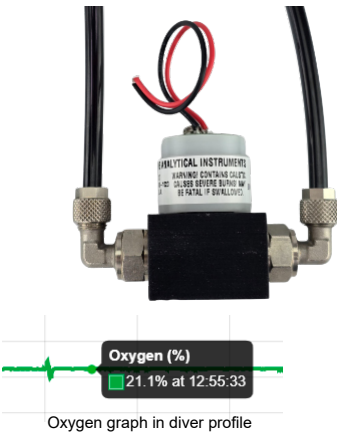
The PS-1-300 is the perfect companion for the DMS, providing a compact and efficient solution for pressure monitoring off the gas supply and outputs of the diver gas panel. The sensor has a male 1/4" NPT port to for connection to the pressure line in your diver gas panel or pressure port of your decompression tank. The PS-1-300 is wired to one of the input ports and can be set as a pressure input or output and guarded by set alarms on low and high pressure

Housed in durable stainless steel with a 4pin M12 connector, the PDS-1 provides accurate depth readings up to 60 meters sea water (msw) or 200 feet seawater (fsw).



Oxygen sensor / cell

Any oxygen cell used for monitoring the oxygen supply of the diver breathing gas can be connected to the O2 input port of the DMS. One for each channel (Diver). The Oxygen cell can be calibrated in the DMS using 2 reference gases. The DMS while have predefined calibration settings for common used oxygen cells.



Sensor to Function selection Matrix

In the DMS settings menu each Diver channel has a sensor matrix in which you can select the input, calibrate and assing a unit to the sensor, and attach it to a predefined or custom function.

This make the DMS a multiple sensor and data logging dive logging system.

Sensor Function ↓	Status	Off	Depth	Deco	Bell	Oxygen	Custom 1	Custom 2	Custom 3	Alarm	Units
D		☐	☒	☐	☐	☐	☐	☐	☐	☐	MSW
S1		☐	☐	☐	☐	☐	☒	☐	☐	☐	Bar
S2		☐	☐	☐	☐	☐	☒	☐	☐	☐	mBar
O		☐	☐	☐	☐	☒	☐	☐	☐	☐	%
I		☐	☐	☐	☐	☐	☐	☒	☐	☐	
Pneumo (P)		☒	☐	☐	☐	☐	☐	☐	☐	☐	