

#### **MOSS DEPTH SYSTEM**

The MOSS depth system is a portable unit to determine the exact depth during a marine, diving or civil underwater project. The system provide real-time depth values for from the waterline as well from a reference level (NAP).

## **MOSS OVERALL**

The MOSS is a practical, robust and portable measurement solution for your monitoring and surveying needs. With the universal setup of the MOSS many different sensors can be connected and therefor the MOSS can be applied at projects in the marine, diving and civil sector.

With the integrated battery system the MOSS is ideal for field measurements where no power supply is available.

The data is gathered, calculated, presented and stored on a USB stick for easy handover.

The measurement and monitoring tools of TARKA-SYSTEMS are made with over 15 years of practical field experience in mind. Therefor the MOSS is built into a rugged case with special connectors and logical operational screens.



# **DEPTH MEASUREMENT**

For the exact depth measurement the MOSS uses three pressure sensors:

- Sensor to measure the atmosphere.
- Sensor just below waterline.
- Sensor to go down to object (depth).

The atmospheric sensor is integrated inside the MOSS. The waterline sensor is placed just below the waterline with a fixed distance to the (NAP) reference level. The depth sensor is going down with diver to be placed on the object that needs to be measured.

INTRO 0 / 0	<b>DENSITY</b> 0 / 0			
DEPTH MEASUREMENT SYSTEM Based on:	Use density probe to determine value and set density.			
- Atmospheric sensor (inside MOSS) - NAP reference sensor at shallow depth - Pressure sensor at depth	DENSITY 0 kg/m3			
- Water density probe (seperate unit) - Online calculation of (NAP) depth	Press A : Increase value (max 1030) Press B : Decrease value (min 990)			
21:04:46 17.10.2018	06:04:11 18.10.2018			
<b>←→</b>	<b>←</b> A B <b>→</b>			

To calculate the correct depth also the density of the water can be entered. The difference in depth between salt and fresh water is significant.

OVERVIE	OVERVIEW 070 DEP			ОЕРТН М	EASUR	EMENT	0/0
	mbar	°C	Abs	0 NAP	0 Atm	0 Dens	0
1: Atmospheric sensor	0.0	0.00	Dept	Depth under water			
2: NAP reference sensor	0.0	0.00	Dopt	0.00			
3: Absolute sensor	0.0	0.00				U	
4: Density	0.0		Dept	h from NAP		~ ~	~
Difference sensor 3-2	0.0	m 0.0				0.0	U
21:19:07	17.10.2018		21:19	9:42		17.10.	2018
←		→	+				•

With clear screens the supervisor can operate the MOSS very easily and no extra training is required.

The startup time of the system is less than 15 minutes.

The depth sensor can be applied with a separate cable on a reel or direct to a free cable on the umbilical of the diver.



civil under water applications.

When divers' video or light cable is not used on the umbilical, this 4-core input can be used for the pressure sensor to avoid extra cables. With an additional splice on the dry-end of the umbilical the signal can be feed into the MOSS.



Left: Direct readings on MOSS, located at dive-container Right: Pressure sensor at location of diver

## **MOSS ADVANTAGES**

The depth measurement with the MOSS has the following advantages:

- Digital measurement by means of a pressure sensor instead of visual observation of lead-line.
- Sensor can be connected to lead-line when no divers are available.
- Can be used in any excavation pit.
- Easy to apply, direct from surface, divecontainer or project bus nearby with or without a small boat or pontoon.
- Direct readings on screen of MOSS.
- Readings are stored on USB stick for validation or generation reports.
- Portable system with integrated battery supply.
- Client specific software possible.
- Pressure sensor can be connected to existing umbilical of diver.
- Optional : button box for manual actions



Main: Original visual depth reading on pontoon with lead-line. Insert: New digital readout of depth on MOSS screen

Save time and personal by using the MOSS system for your depth surveys due to the pragmatic design, clear functionality and the ability of reading a wide range of sensor inputs.

## **MOSS DETAILS**

Rugged case	: 305x270x194 mm
Weight	: Approx. 4.5 kg
Battery	: 90 Wh (approx. 24 hours)
Connectivity	: 1 x sensor atmospheric
	: 1 x depth sensor NAP
	: 1 x sensor depth,
Cable reel	: 60m cable on reel
Charge	: 1 x input 12 Vdc
Display	: 3.5 inch, 320x240 pixel
Software	: Display and store data



Overview of the complete set.