

# MOSS

## MULTI OPERATION SURVEY SYSTEM



**MULTIPURPOSE TOOL  
FOR FIELD APPLICATIONS AND SURVEY JOBS**

## MONITORING YOUR PROJECTS

FROM SENSOR TO VISUALISATION



MARITIME



OFFSHORE



SALVAGE



CIVIL



[WWW.TARKA-SYSTEMS.NL](http://WWW.TARKA-SYSTEMS.NL)

**COMPLETE SYSTEM INTEGRATION**  
**SENSORS/HARDWARE/SOFTWARE FOR PROJECT MONITORING**

## MOSS-4

- Digital inputs
- Digital outputs
- Analog inputs
- CAN
- RS232
- Ethernet
- Internal/External storage

## MOSS-5

- Digital inputs
- Digital outputs
- Analog inputs
- CAN
- RS485
- Ethernet
- Modbus RTU
- Internal/External storage





## MOSS SPECIFICATIONS

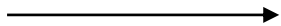
<b>Rugged case</b>	:	<b>305x270x194 mm</b>
<b>Weight</b>	:	<b>approx. 4.5 kg</b>
<b>Battery</b>	:	<b>90Wh (optional 2)</b>
	:	<b>Status display</b>
	:	<b>On/Off switch</b>
	:	<b>Power indicator led</b>
<b>Connectivity</b>	:	<b>see previous page</b>
	:	<b>Ethernet connector</b>
	:	<b>USB connector</b>
	:	<b>Multi purpose connector</b>
<b>Display</b>	:	<b>3.5 inch, 320x240 pixels</b>
<b>Charge</b>	:	<b>12 Vdc</b>
<b>Storage</b>	:	<b>1Gb flashdisk (intern)</b>
	:	<b>USB stick (extern)</b>
<b>Software</b>	:	<b>Client specific</b>
<b>DGDM (Data Gathering and Display Module)</b>	:	<b>Type 4 or 5</b>
<b>Specials</b>	:	<b>on request</b>

## FREEBOARD / DRAFT / TANKLEVELS PORTABLE

Ultrasonic  
Distance sensor



Modbus or mA



FREEBOARD DATA		2/5
VALUE	Distance [cm]	0.0
AVERAGE [ 0 ]	Distance [cm]	0.0
16:22:29		0 0 04.09.2015
Mon/Save		→



Modbus or mA



## DEPTH MEASUREMENT

Pressure sensors



Modbus or mA



Absolute pressure



Modbus or mA



Atmospheric pressure



MOSS (Marine Operations Survey System),  
mobiel meetsysteem, ingezet voor inmeten van meer dan 300 locaties.

### APPLICATION EXAMPLE :

- Depth measurement in Civil excavation pits
- Diver operation assistance

[www.tarka-systems.nl](http://www.tarka-systems.nl)

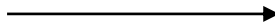
Nauwkeurige diepte bepaling met druksensoren.  
Afstellen ankers en stempels mogelijk zonder peillood en ponton

## INCLINE MEASUREMENT

**Incline sensor  
1 or 2 angles**



mA or V or serial



### APPLICATION EXAMPLE :

- Heavy lift
- Heavy transport

## FREEBOARD / DRAFT / TANKLEVELS FIXED

### Multiple Distance sensors



Max 4x mA sensor  
→



FREEBOARD DATA		2/5
VALUE Distance [cm]	0.0	
AVERAGE [ 0 ] Distance [cm]	0.0	
16:22:29	0	0 04.09.2015
Mon/Save		→



Multiple sensors  
by modbus  
→

### APPLICATION EXAMPLE :

- Freeboard / Draft
- Tank levels



## MOTION MEASUREMENT

MOTION sensor (external)



RS232 [nmea] →

Distance sensor (external)



RS232 [nmea] →  
optional



Roll & Pitch monitoring during loadout on barge



### APPLICATION EXAMPLE :

- Roll&Pitch on barge during load out
- With additional freeboard sensor also the draft of the barge is monitored simultaneous

## MOTION MEASUREMENT

MOTION sensor (internal)  
With additional options (external)



Distance sensor for  
draft/freeboard

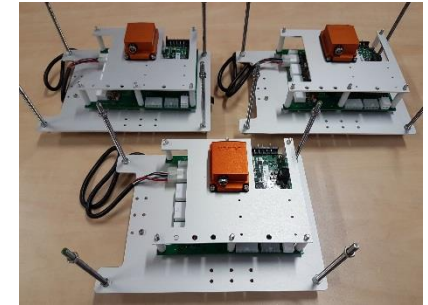


GPS for location

RS232 [nmea]



optional



Motion sensor  
mounted internally



Used on wind-farm  
installation vessel



### **NOTE:**

**Ideal for quick response projects while engineer can take system in backpack, no special transport or shipping.**

### APPLICATION EXAMPLE :

- Roll & Pitch monitoring during transport and installation
- (Optional) Draft and GPS sensor to make complete system

## TEMPERATURE MEASUREMENT

Pt100



Convertor  
to mA signal



mA signal



Pressure sensor



APPLICATION EXAMPLE :

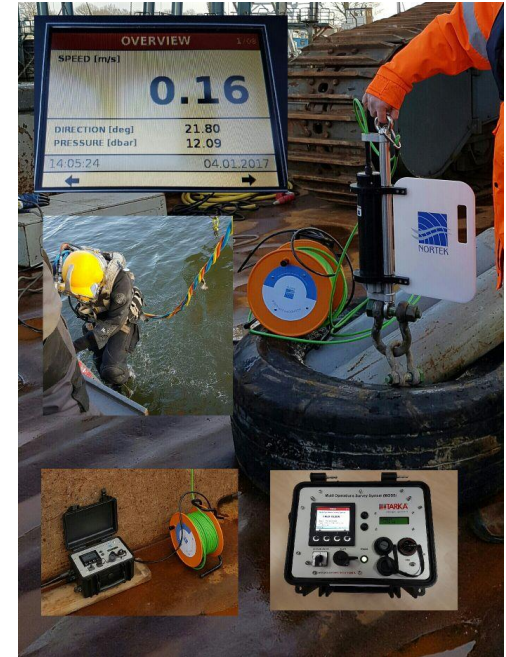
- Pressure and temp test on new installed pipelines

## FLOW/CURRENT MEASUREMENT

### AQUADOPP



rs232signal



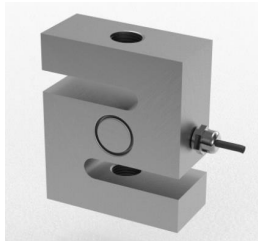
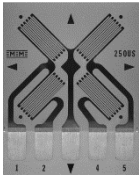
#### APPLICATION EXAMPLE :

- Flow measurement for diving or submerges activities



## STRAIN GAUGE MEASUREMENT

Strain gauge



Load cell

Bridge signal



mA/Modbus/can  
signal



### APPLICATION EXAMPLE :

- Strain gauges, direct or from loadcell/load pin etc

## WEATHER STATION / WIND MEASUREMENT



Windsonic



Maximet



Wind Observer

RS232 output



### APPLICATION EXAMPLE :

- Marine, Civil and Offshore applications

## DATA THROUGHPUT BY UDP

Random Sensor input



UDP output  
to ip-address



## DATA CONNECTION WIRELESS

MOSS data collector

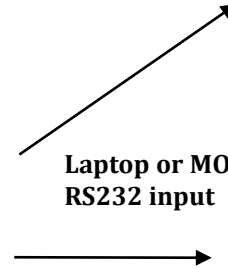


RS232 output



Wireless datalink

Laptop or MOSS  
RS232 input



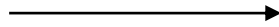
### APPLICATION EXAMPLE :

- Remote data presentation
- Ship-Shore data transfer



## IRIDIUM CONNECTION

### Random Sensor input



Serial output  
to IRIDIUM unit

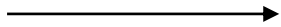


## POWER SUPPLY

### Power options



**Netpower adaptor  
Convert to 12Vdc**

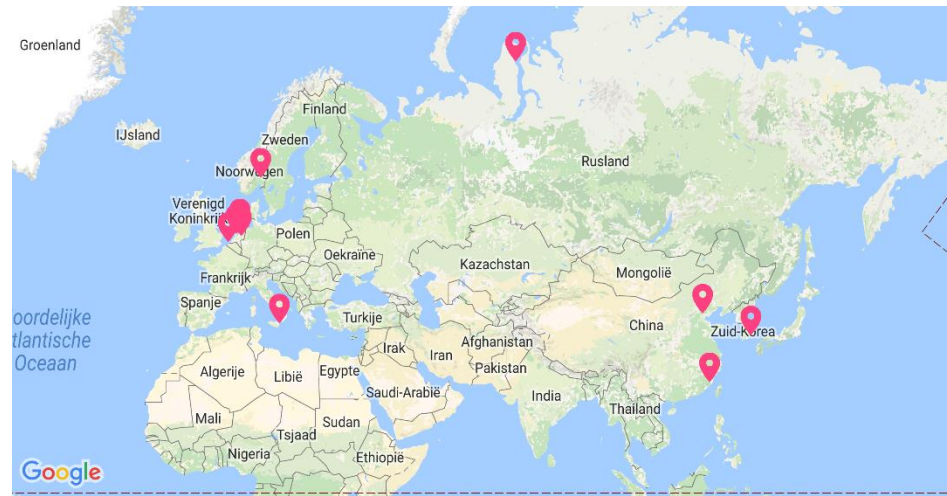
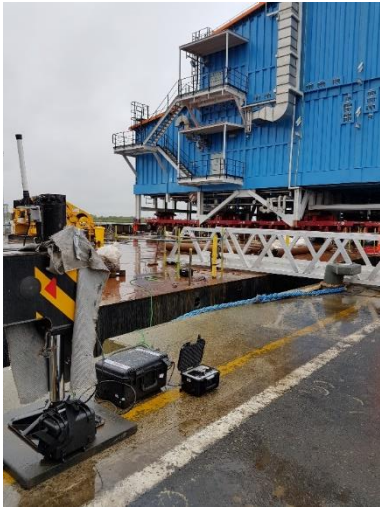


**Battery power  
12 Vdc**



**Solar power**





# WHY...

Major companies find their way to  
TARKA-SYSTEMS for monitoring systems



# CURIOUS? CHECK IT OUT!



[www.tarka-systems.nl](http://www.tarka-systems.nl) [info@tarka-systems.nl](mailto:info@tarka-systems.nl)