

## Depth Meter for Online/Offline Operation

Handy precision pressure transmitter and recorder



### ABOUT

This light and handy measuring instrument provides accurate pressure data during operations of plankton nets, water samplers and other sampling equipment in limnological and oceanographic applications. It can be used in online mode with integrated long-distance telemetry via electro-mechanical towing cables as well as in self-contained mode with data recording inside its internal data memory.

The system consists of a titanium pressure housing with integrated sensor, electronics, rechargeable batteries. A splash-proof hand unit is the link between underwater unit and PC during online operations.

The state-of-the-art electronics, optimised in power consumption, are designed for ambient temperatures from  $-40^{\circ}\text{C}$  up to  $+85^{\circ}\text{C}$ .

The maximum operational depth is 3000 meters.

The Depth Meter is delivered with the data acquisition software OceanLab 3, an easy-to-use package for pre-deployment system set-up, real-time data acquisition, data visualisation, storing and export.

### FEATURES

- ▶ Combined online/offline use
- ▶ Compact size and low weight
- ▶ Bi-directional communication
- ▶ Standard depth range 3000 m
- ▶ Long-distance FSK-telemetry ( $>10000$  m)
- ▶ Low power consumption
- ▶ Battery operated Underwater Unit, max. voltage of 5 V at the conductor cable
- ▶ Electronics operate from  $-40^{\circ}\text{C}$  up to  $+85^{\circ}\text{C}$
- ▶ EC-conformity (CE) EN 50081-1, EN 50082-1

### TECHNICAL DATA

<b>Measuring range</b>	0 ... 3000 dbar $\pm$ 0.1% f.s.
<b>Data memory</b>	4 MByte, sufficient for 290 hours recording
<b>Data sampling rate</b>	1 Hz (one data set per second)
<b>Telemetry connector:</b>	SUBCONN IL 2 M
<b>Dimensions</b>	45 mm dia. x 230 mm
<b>Weight</b>	1 kg
<b>Material</b>	Titanium
<b>Hand Unit</b>	Plastic housing, splash-proof (IP65), battery powered, LC-display 4 x 20 characters, interface for PC (RS-232)

### ORDERING INFORMATION

Products	
<b>450 400</b>	<b>Depth Meter for online/offline operation</b> incl. hand unit, battery charger and OceanLab 3 software

ABOUT US

WATER SAMPLERS

PLANKTON NETS

SEDIMENT TRAPS

BOTTOM SAMPLERS

MEASURING INSTRUMENTS

PLANKTON EXAMINATION

MISCELLANEOUS INSTRUMENTS

## Depth Meter with 2 Flow Meters for Online Operation

Handy precision pressure, flow velocity and volume data transmitter



### ABOUT

This light and handy measuring instrument provides accurate pressure, flow velocity and volume data during operations of plankton nets for limnological and

oceanographic applications. The 2 Electronic Flow Meters to measure flow velocity and volume are ideal to be operated with either single-ring plankton nets or double-ring plankton nets.

The integrated long-distance telemetry can be used via electro-mechanical towing cables of more than 10000 m length.

The system consists of a titanium pressure housing with integrated pressure sensor, electronics, rechargeable batteries and two Electronic Flow Meters. A splash-proof hand unit is the link between underwater unit and PC during the operations. The state-of-the-art electronics, optimised in power consumption, are designed for ambient temperatures from -40°C up to +85°C.

The system is rated to a maximum operational depth of 3000 meters.

The Depth Meter is delivered with the data acquisition software OceanLab 3, an easy-to-use package for pre-deployment system set-up, real-time data acquisition, data visualisation, storing and export.

### TECHNICAL DATA

<b>Measuring range pressure</b>	0 ... 3000 dbar ± 0.1% f.s.
<b>Measuring range velocity</b>	0.1 ... 9.9 m/s
<b>Accuracy velocity</b>	± 1% (0.5 ... 9.9 m/s) ± 5% (0.1 ... 0.5 m/s)
<b>Measuring range volume</b>	0.0 ... 6500.0 m <sup>3</sup> (net opening below 0.25 m <sup>2</sup> ) 0.0 ... 65000 m <sup>3</sup> (net opening above 0.25 m <sup>2</sup> )
<b>Data sampling Rate</b>	1 Hz (one data set per second)
<b>Telemetry connector</b>	SUBCONN BH 2 M
<b>Dimensions</b>	75 mm dia. x 350 mm
<b>Weight</b>	4 kg
<b>Material</b>	Titanium (pressure tube), stainless steel (flow meters)
<b>Hand Unit</b>	Plastic housing, splash-proof (IP 65), battery powered, LC-display 4 x 20 characters, interface for PC (RS-232)

### ORDERING INFORMATION

Products	
450 401	<b>Depth Meter with 2 Electronic Flow Meters for online operation</b> incl. hand unit, battery charger and OceanLab 3 software

### FEATURES

- ▶ Compact size and low weight
- ▶ Bi-directional communication
- ▶ Standard depth range 3000 m
- ▶ Long-distance FSK-telemetry (>10000 m)
- ▶ Low power consumption
- ▶ Battery operated Underwater Unit, max. voltage of 5 V at the conductor cable
- ▶ Electronics operate from -40°C up to +85°C
- ▶ EC-conformity (CE) EN 50081-1, EN 50082-1