

# ▶ DIGIBAR S™

SELF CONTAINED SOUND SPEED PROFILER



**TELEDYNE**  
**ODOM HYDROGRAPHIC**  
A Teledyne Technologies Company

# DIGIBAR S™

## SELF CONTAINED SOUND SPEED PROFILER

The rugged all stainless steel Digibar S was designed for un-tethered sound velocity casting. This configuration frees the probe from its electrical cable making deeper sound speed profiling a much easier and more reliable task. With a 500 m maximum depth capability and storage for multiple casts, the "S's" flexible design still maintains some of the best features of the popular Digibar Pro. Immediately before the unit is deployed, a simple system of flashing LEDs serves to confirm battery status, pressure sensor status, and overall probe operation. The confirming indicators drastically reduce the possibility of retrieving a deployment only to find that there is no data to show for the effort. Logging parameters are setup via a simple Windows interface communicating through your PC's USB port. That same port is used to download the results of the cast and to charge the probe's internal batteries. Cast data (sound velocity, temperature, pressure, and time) are stored internal to the probe in EEPROM. This means that critical measurements are maintained independently from the batteries that power the unit's time of flight velocity determining circuitry, thereby providing an extra layer of security for the all-important cast results. Accurate, easy to use, rugged and reliable all appropriate descriptors of the Digibar S and the hallmark of Teledyne Odom's product lines.

### GENERAL SPECIFICATIONS

#### VELOCIMETER SPECIFICATIONS

##### Memory

- 64KB of battery backed internal memory
- File Header= 16 bytes
- 1 Logging event = 16 bytes
- 250 casts maximum

##### Communication Interface

- USB download software supplied

##### Velocity Range

- 1400 – 1700 m/sec (4593 – 5577 ft/sec)

##### Velocity Resolution

- 0.1 m/sec

##### Velocity Accuracy

- ± 0.05 m/sec RMS

##### Operating Temperature Range

- -2° to 40° C (in water)

##### Sample Rate

- 1 kHz

##### Velocity Measurement Technique

- Time of Flight

##### Logging basis

- Depth or Time (0.25 m or 1 sec)

##### Dimensions (Length x Diameter)

- 61 cm L x 6.04 D, (24 x 2.375 in)

##### Weight

- 2.84 kg (6.25 lb) in air

##### Power

- 3 Rechargeable AA Nickel Metal Hydride Batteries

##### Charging Method

- USB port or AC power adapter (USB port adapter cable supplied)

##### Battery Life

- 12 hrs. continuous operation between charges

##### Housing Material

- Stainless Steel

#### VELOCIMETER SPECIFICATIONS

##### Temperature Resolution

- 0.01° C

##### Temperature Accuracy

- 0.05° C RMS

##### Operating Temperature Range

- -5° to 40° C

#### DEPTH/PRESSURE SENSOR

##### Barometric Adjustment

- Automatic

##### Depth Range (Select One)

- 0-50 m (100 psi sensor), 0-500 m (1 k psi sensor)

##### Depth Resolution

- 0.1 m

##### Depth Accuracy

- +/-0.25% of Full Scale



► See our entire product line at: [odomhydrographic.com](http://odomhydrographic.com)