



Pile Dynamics, Inc.
www.pile.com • 1.216.831.6131

Technical Specifications

Deep Water Sensor System Specifications

Deep Water Strain Transducer

Compatible with the PDI Underwater Main Cable
Encapsulated and waterproof to at least 300 m (~1,000 ft) for 1 month
Waterproof to 900 m (~3,000 ft) for 2 weeks
Underwater mated connector waterproof to 900 m (~3,000 ft)

Effective Gage Length

76 mm (3 in) standard

Size

140 x 38 x 19 mm (5.5 x 1.5 x 0.75 in)

Material

Aluminum frame, encapsulated with polyurethane

Circuit

Full Wheatstone bridge

Cable

Thick jacket heavy duty underwater 4-conductor wire available in the standard 7.6 mm (25 ft) length; other cable lengths available on request

Nominal Sensitivity

500 $\mu\epsilon/mV/V$

Strain Range

Nominally 3,000 $\mu\epsilon$ (functional to 8,000 $\mu\epsilon$)

Shock Range

Nominally 5,000 g





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Operating Temperature Range

-50° to 120°C (-58° to 248°F)

Attachment Method

Bolts to pile
Nickel Plated Brass Threaded Marine Connector

Deep Water Piezo Electric Accelerometer

Compatible with PDI Underwater Main Cable

Encapsulated and waterproof to at least 300 m (~1,000 ft) for 1 month

Waterproof to 900 m (~ 3,000 ft) for 2 weeks

Underwater mated connector waterproof to 900m (~3,000 ft)

Mounting

Custom aluminum block (25 x 25 x 25 mm)
(1.0 x 1.0 x 1.0 in)

Material

Aluminum frame, encapsulated with
polyurethane

Cable

Thick jacket heavy duty underwater
4-conductor wire available in the standard
7.6 mm (25 ft) length; other cable lengths
available on request

Sensitivity

Nominally 1.0 mV/g with 10 V.D.C. bias voltage input

Range

5,000 g (Limit 10,000 g)

Frequency Range

0.25 to 7000 Hz (resonant freq: > 40 kHz)





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Operating Temperature Range

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Time Constant

Nominally 3s

Attachment Method

Bolts to pile
Nickel Plated Brass Threaded Marine Connector

Deep Water Main Cable

Compatible with PDI Underwater Sensors and PDA

Waterproof to 900 m (~3,000 ft) for 2 weeks (except for top end connection to PDA)

Underwater mated connector waterproof to 900 m (~3,000 ft)

Mounting support eyelet on molded breakout at bottom end

Material

Breakout encapsulated with polyurethane

Cable

Thick jacket heavy duty underwater 9 twisted shielded pairs wire available in standard lengths in multiples of 76 m (250 ft), 152 m (500 ft), and 228 m (750 ft); other cable lengths available on request

Cable color

Orange or Yellow

Cable jacket

Polyurethane

Operating Temperature Range

-30° to 120°C (-22° to 248°F)

Nickel Plated Brass Threaded Marine Connector

Cable core strength member breaking load 1900 Kg (~4,200 lbs.)

