



Deep Water Sensor System Specifications

20-214

Deep Water Strain Transducer

Compatible with the PDI Underwater Main Cable
Encapsulated and waterproof to at least 300 m (~1,000 ft) for at least 1 month
Waterproof to 1500 m (~3,000 ft) for 2 weeks
Underwater mated connector waterproof to 1500 m (~3,000 ft)
Effective Gage Length: 76 mm (3 in) standard
Size: 140 x 38 x 20 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 7600 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
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 at least 1 month
Waterproof to 1500 m (~ 3,000 ft) for 2 weeks
Underwater mated connector waterproof to 1500 m (~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 7600 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)
Operating Temperature Range: -50° to 120°C (-58° to 248°F)
Time Constant: Nominally 3s
Attachment Method: Bolts to pile
Nickel Plated Brass Threaded Marine Connector



Quality Assurance for Deep Foundations

Pile Dynamics, Inc.

Deep Water Main Cable

Compatible with PDI Underwater Sensors and PDA

Waterproof to 1500 m (~5,000 ft) for 2 weeks (except for top end connection to PDA)

Underwater mated connector waterproof to 1500 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 75 m (250 ft), 150 m (500 ft), and 225 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.)