Underwater Sensor System Specifications

Underwater Strain Transducer

Compatible with PDI Underwater Main Cable
Encapsulated and waterproof to at least 300 meters for at least 1 month
Waterproof to 1500 meters for 2 weeks
Underwater mated connector waterproof to 1500 meters
Effective Gage Length: 76 mm standard
Size: 140 x 38 x 20 mm
Material: Aluminum frame, encapsulated with polyurethane
Circuit: Full Wheatstone bridge
Cable: Thick jacket heavy duty underwater 4-conductor wire available in standard lengths 3050 mm or 7600 mm, other cable lengths available on request
Nominal Sensitivity: 500 $\mu$ε/mV/V
Strain Range: Nominally 3,000 $\mu$ε (functional to 8,000 $\mu$ε)
Shock Range: Nominally 5,000 g
Temperature Range: -50° to 120°C operating
Attachment Method: Bolts to pile
Connector is Rubber Molded Connector

Underwater Piezo Electric Accelerometer

Compatible with PDI Underwater Main Cable
Encapsulated and waterproof to at least 300 meters for at least 1 month
Waterproof to 1500 meters for 2 weeks
Underwater mated connector waterproof to 1500 meters
Mounting: Custom aluminum block (25 x 25 x 25 mm)
Material: Aluminum frame, encapsulated with polyurethane
Cable: Thick jacket heavy duty underwater 2-conductor wire available in standard lengths 3050 mm or 7600 mm, 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)
Temperature Range: -50° to 120°C operating
Time Constant: Nominally 3s
Attachment Method: Bolts to pile
Connector is Rubber Molded Connector

Underwater Main Cable

Compatible with PDI Underwater Sensors and PDA
Waterproof to 1500 meters for 2 weeks (except for top end connection to PDA)
Underwater mated connector waterproof to 1500 meters
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 meters, other cable lengths available on request
Cable color: Orange or Yellow
Cable jacket: Polyurethane
Temperature Range: -30° to 120°C operating
Underwater Connectors are Rubber Molded Connector
Cable core strength member breaking load 1900 Kg