

Who We Are

At CTC, we are a family-owned and operated business passionate about providing the highest quality products backed by excellent customer service. We are the industry leader in quick delivery for stock and built-to-order products, and all CTC products are proudly made or assembled in the U.S.A.

What We Do

CTC is the world leader in the design and manufacture of vibration analysis hardware. We serve the industrial condition monitoring market with a comprehensive portfolio of industrial accelerometers, piezo velocity transducers, 4-20 mA vibration sensors, and proximity probes as well as all related mounting hardware, cabling, and junction boxes. Our products enable efficient vibration monitoring for predictive maintenance in a wide variety of industries. Industries served include cement, mining, petrochemical, food and beverage, auto, steel, wind, paper, power generation, water and wastewater treatment, pharmaceutical, hospitals, bottling, and more. We also serve the research and development market with our top-of-the line series of test and measurement accelerometers and related accessories designed for use in laboratory environments. Our mission is to offer the most extensive collection of accelerometers and vibration analysis hardware products, as well as the tools for installation. Our products are compatible with multiple third-party data collectors and online monitoring systems.

Product Offerings

At CTC, we offer comprehensive product lines to meet your vibration monitoring needs. Our products reflect the input from customers and distributors around the world and are designed and tested to meet the real-world demands of plant environments. We believe our products are the highest quality on the market, which is why we back each product line with industry-leading warranties.

Cook Family

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New to the CTC Family



High Voltage Isolated Molded Accelerometers

- 10 kV DC (7 kV AC) electrical isolation between the base and internal electronics
- Stainless steel top exit connector and base with polycarbonate overmolded case
- Available in 100 mV/g or 500 mV/g, ±5%, ±10%, or ±15% sensitivity
- Designed for use with CTC grounded connectors for added noise protection: A2AG or A2NG



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Coming Soon



DM72000 Low-Cost Reverse Mount Proximity Probe Housing

- Easily adjust the gap between the machine shaft and probe or replace an extension cable without shutting down the machine
- Available in top or side exit configurations
- Durable polycarbonate body with 316L stainless steel sleeve that protects proximity probes against harsh conditions
- Crush washer included to seal the sleeve interior between the reverse mount probe and penetration sleeve
- Convenient wrench flats for easy installation



CTC offers a complete line of industrial accelerometers. Our ruggedized industrial accelerometers are available in single axis, biaxial, and triaxial designs. Many configurations allow for either top or side exit options. Side exit configurations are suitable for installations in areas where height is an issue. CTC's industrial accelerometers support a diverse set of applications with sensitivity values ranging from 10 mV/g to 1000 mV/g. Dual output configurations allow for vibration and temperature outputs.

Multipurpose Accelerometer, Top Exit



STANDARD SIZE



COMPACT SIZE



MINI SIZE

Multipurpose Accelerometer, Side Exit



STANDARD SIZE

COMPACT SIZE





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ACCELEROMETERS

Multipurpose Accelerometer, Integral Cable Options









STANDARD INTEGRAL

ARMORED INTEGRAL

FEP JACKETED

HEAVY DUTY ARMORED

ULTRASOUND



Ultrasound Sensors

UEB332/UEA332

Dynamic IEPE vibration and ultrasound accelerometer with high amplitude resonance peak for stress wave measurements

Sensitivity: 100 mV/g, ±10% Resonant Frequency: 42 kHz ±2 kHz

HIGH-TEMPERATURE

High-Temperature Resistance Accelerometers



AC207/AC208 100 mV/g, ±10% Max Temp: 325 °F (162 °C)





TXEA331-HT 100 mV/g, ±5% Triax Sensor Max Temp: 325 °F (162 °C)

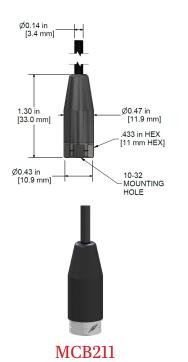


TR207-M12/TR208-M12 100 mV/g, ±10% RTD Sensors Max Temp: 325 °F (162 °C)

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Cost Effective Molded Sensors

featuring a fully-molded design



High Frequency,

10 mV/g, ±10%

1.59 in [40.4 mm]

> 1/4-28 1/8 in

[3.2 mm

1.18 in [29.9 mm]

9/16 in [14.3 mm]

Ø0.45 in [Ø11.3 mm]

These miniature sensors are ideal for applications with limited clearance, limited mounting surface space, or submersible applications. The minimal form factor and excellent frequency response allow this sensor to be used in a wide variety of applications.



MEB210 General Purpose, 100 mV/q, ±10%



MEB211 High Frequency, 100 mV/g, ±10%

Low-Profile Molded Sensors

CTC's innovative solution for space-constrained applications requiring permanent mounting, featuring integrated rotating mounting base.



MEB360 Premium, Low Profile, 100 mV/g, ±5%





MEB361 Low Cost, Low Profile, 100 mV/q, ±15%



MCB360 Premium, Low Profile, 10 mV/q, ±5%



MCB361 Low Cost. Low Profile, 10 mV/g, ±15%

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TEMPERATURE & VIBRATION

Dual Output Temperature and Vibration Sensors





TA202 100 mV/g,10 mV/°C, ±10% Temp Range: -40 °F to 250 °F (-40 °C to 121 °C)

TA204 100 mV/g, 10 mV/°C, ±10% Temp Range: -40 °F to 250 °F (-40 °C to 121 °C)



TR102-M12A 100 mV/g, ±10% PT100 RTD Temp Range: -40 °F to 250 °F (-40 °C to 121 °C)



TR104-M12A 100 mV/g, ±10% PT100 RTD Temp Range: -40 °F to 250 °F (-40 °C to 121 °C)

HAZARDOUS RATED

Hazardous Rated Accelerometers

CTC offers a variety of single axis, biaxial, triaxial, dual output, and 4-20 mA loop power vibration sensors certified for the most popular hazardous ratings, including the following:

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MULTI-AXIAL

Dual Output Triaxial Accelerometers



TXEA331-TA Dual Output Triax Acceleration & Temperature, 100 mV/g, 10 mV/°C, ±5%



TXEA331-VT Dual Output Triax Velocity & Temperature, 100 mV/in/sec, 10 mV/°C, ±5%



TXFA331-TA Dual Output Triax Acceleration & Temperature, 500 mV/g, 10 mV/°C, ±5%



TXFA331-VT Dual Output Triax Velocity & Temperature, 500 mV/in/sec, 10 mV/°C, ±5%

Other Popular Triaxial Accelerometers



AC115 Low Cost, Standard Size, 100 mV/g, ±15%



TREA330 Premium, Miniature Size, 100 mV/g, ±5%



TCEB331 Premium, Miniature Circular Shape,100 mV/g, ±5%



TXFA331 Premium, Low Frequency, 500 mV/g, ±5%

Popular Biaxial Accelerometers



AC119 Low Cost, Biaxial with X & Z Axis, 100 mV/g, ±15%



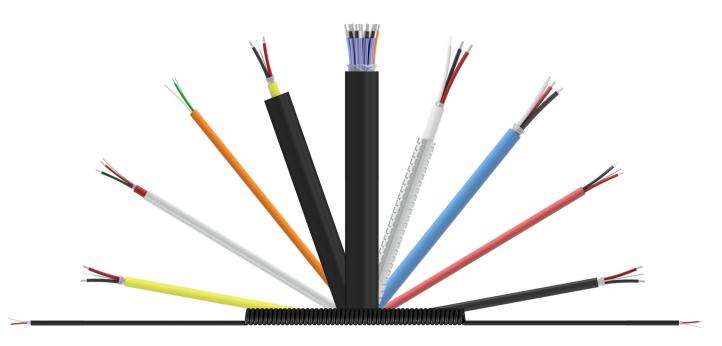
AC979 Intrinsically Safe Biaxial with X & Z Axis, 100 mV/g, ±5%



BSFA333-IV Inverse Voltage Biaxial with X & Z Axis, 100 mV/g, ±15%



CTC Offers a Variety of Cable Options for All Application and Environmental Criteria



JACKET TYPES

- Fluorinated Ethylene Propylene (FEP)
- Polyurethane
- Lightweight Polyurethane
- PVC
- Thermoplastic Elastomer (TPE)
- Low Smoke Zero Halogen

ARMOR OPTIONS

- Stainless Steel Braided Sheathing
- Stainless Steel Armor
- Hydraulic Hose Armor

CONDUCTOR OPTIONS

- 2 Conductor
- 3 Conductor
- 4 Conductor
- 6 Conductor

HAZARDOUS ZONE OPTIONS

 Class 1 Division 2 Approved Cables

LOW COST CABLE REELS

Bulk Cable Options Available in 1000 ft. Reels





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CTC Offers a Variety of Standard and Specialty Connectors for Every Possible Application

CTC sensor connectors support temperatures ranging from -58 °F to 325 °F (-58 °C to 162 °C). A wide selection of connectors supporting IP (Ingress Protection) ranging from IP66 to IP69 is available.

A Series: MIL Style (C-5015) Compatible Connector

Connector Options

- Straight or Right Angle Connectors
- Hydraulic Hose Sleeve Available
- Available in 2 and 3 Live Socket Configurations

Material Options

- Polycarbonate
 - Polyurethane
- Nylon
- PPS
- J SERIES: MINI-MIL STYLE CONNECTOR

Connector Options

- Straight Connector
- Strain Relief Available
- Class 1 Division 2 Rated
- Available in 2 and 4 Live
- Socket Configurations

Material Options

- Polycarbonate
- Nylon
- Polyurethane

Polyurethane

- Viton[™]
- PPS

Material Options

K Series: MIL Style (C-5015) Compatible Connector

Connector Options

- Straight Connector
- Strain Relief
- Grounded Backshell
- Available in 2 and 3 Live Socket Configurations

M Series: M12 Molded Connector



Connector Options

- Straight Connector
- Strain Relief Available
- Available in 2, 3, 4, and 5 Live Socket Configurations

Material Options

- Nylon
- Polycarbonate
- Polyurethane

V Series: Viton™ Protective Boot Cover

Connector Options

- Straight Connector
- Available in 2, 3, or 4 Live Socket Configurations

Material Options

- Viton[™] Seal with
 - Nylon Insert Option
 - PPS Insert Option

Many other options for cabling and connectors are available. Please visit our website for more details.



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Live



Data Collector Cord Sets

CTC offers a variety of OEM replacement data collector cables and portable cable options for all major vibration analyzer manufacturers. Data collector cables are available in both coiled and straight cable options. Replacement cable assembly and adapters are available for every major data collector including:

ACOEM, ADASH Ltd., AES Reliability, Azima/Symphony Industrial AI, Betavib, Bently Nevada/ Baker Hughes/Commtest, CEMB, Emerson/CSI, Entek/Rockwell, Erbessed, Pruftechnik, Schenk, SDT, SEMAPI, SKF, SPM, and Windrock.

Popular Data Collector Connectors



EMERSON/CSI

C555 Channel A Acceleration Input to Emerson 2130 & 2140



ACOEM

C494 Single Channel Acceleration Input for Falcon Data Collectors BENTLY NEVADA/BAKER HUGHES/COMMTEST C416

Triaxial Acceleration Input X, Y and Z for VB Series



ENTEK/ROCKWELL C22 Single Channel Acceleration Input for

dataPAC





SKF C66 Single Channel Acceleration Input for CMXA and DLI/DCA Series



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Scan to view the complete catalog.



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Popular Adapters



CB901-1A 2 Pin MIL to 2 Pin MIL, In-Line Feedthrough, 316L Stainless Steel



CB903-1A 2 Pin MIL to 2 Pin MIL, Bulkhead Feedthrough, 0.5 in. (12.7 mm) NPT 316L Stainless Steel



CB908-1A 2 Pin MIL (316L Stainless Steel) to BNC Plug Adapter (Nickel-Plated Brass), with Overmolded Reinforcement





CB910-1A In-Line BNC Jack Adapter, Nickel-Plated Brass

CB911-1A BNC "T" Adapter, Nickel-Plated Zinc



CB911-3A In-Line BNC Plug Adapter, Nickel-Plated Brass



CB912-1A 2 Socket MIL (Black Zinc Alloy) to BNC Plug Adapter (Nickel-Plated Brass), with Overmolded Reinforcement





CB917-1A BNC Connector (Nickel-Plated Brass) with Mounting Bracket (304 Stainless Steel), Includes BNC Cap Cover and Chain

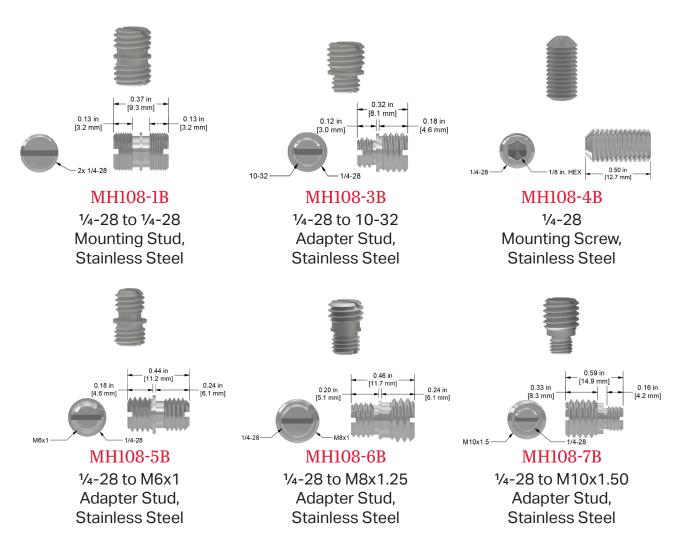


EMPP Molded BNC Jack Connector with Nylon Threaded Protector

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ADAPTERS & ACCESSORIES

Specialty Mounting Adapters & Studs



Empty Enclosures & Replacement Boards



JBA0608-FG Empty Fiberglass Enclosure, 6 in. x 8 in. x 4, in.





JBA0608-SS Empty Stainless Steel Enclosure, 6 in. x 8 in. x 4 in.



JB900 SERIES Single Axis, Multichannel Switch Box PC Boards

JUNCTION BOXES

At CTC, we offer the widest variety of junction boxes in the world. Our junction box solutions allow for the monitoring of remotely mounted vibration sensors, which would be otherwise restricted to human access due to safety considerations. Also offered is a selection of low-cost cable termination boxes that allow multiple measurement points to be routed to a single location to gather data. Many CTC junction boxes offer continuous output options for direct interface to online monitoring systems.

Premium JB Series Switch Boxes

Fully featured NEMA 4X (IP66) rated vibration junction box with IEPE sensor condition indicator lights and convenient interface with fold-forward panel for easy wiring. Compatible with single axis, biaxial, and triaxial inputs.



JB100/JB200 STANDARD SIZE Fiberglass or Stainless Steel, Input Options: 4 to 12 Single Output Sensors



JB100/JB200 Extended Capacity

Fiberglass or Stainless Steel, Input Options: 24 to 48 Single Output Sensors



JB300 Series Slope Top

Stainless Steel Slope Top, Input Options: 4 to 12 Single, Dual, or Triaxial Output Sensors

Legacy Switch Boxes



SB102/SB202/SB262 Standard Size

Fiberglass, Stainless Steel, or Stainless Steel Slope Top, Input Options: 4 to 12 Single Output Sensors





SB142/SB242/SB282 Standard Size

Fiberglass, Stainless Steel, or Stainless Steel Slope Top, Input Options: 4 to 8 Dual Output Sensors



SSB-MODX

Single Axis Switch Module, DIN Rail Mountable, Input Options: 4 to 12 Single Output Sensors

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Cable Termination and Enclosed BNC Connection Boxes



CT101 Cable Termination Boxes, Input Options: 1 to 4 Single Output Sensors



MMX-MOD3 DIN Rail Mountable, MAXX Box BNC Connection Module, 3 BNC Jacks



MX102/MX202 Fiberglass or Stainless Steel MAXX Boxes, Input Options: 1 to 12 Single Output Sensors



MX502 Aluminum Mini-MAXX Boxes, Input Options: 1 to 4 Single Output Sensors

Cable Reduction Boxes

CTC cable reduction boxes reduce the input cabling of up to 16 individual sensors into one multi-conductor cable. Utilizing a cable reduction box can significantly reduce cabling costs for applications with long cable runs. Fiberglass and stainless steel options are available.



CR102/CR202 Fiberglass or Stainless Steel, Input Options: 8, 12, and 16 Single Output Sensors -58 °F to 180 °F (-50 °C to 82 °C)



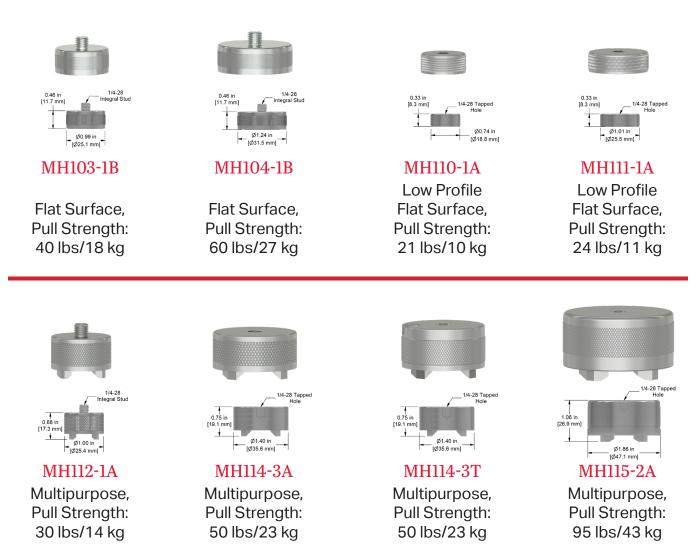
CRHT102/CRHT202 Fiberglass or Stainless Steel, High Temperature, Input Options: 12 and 16 Single Output Sensors -40 °F to 212 °F (-40 °C to 100 °C)



Backed by our industry-leading warranty www.ctconline.com 585-924-5900 1 CTC offers a variety of adhesive and stud mounted sensor mounting pads. Magnet mounting pad options for portable field applications are also available, including flat and two rail mounting configurations. Additionally, we offer specialty mounting accessories for fin-cooled motors as well as a variety of mounting probe tips, which allow access to traditionally hard-to-reach bearing locations. Visit our website for a complete list of our mounting hardware solutions.

Rare Earth Magnetic Bases

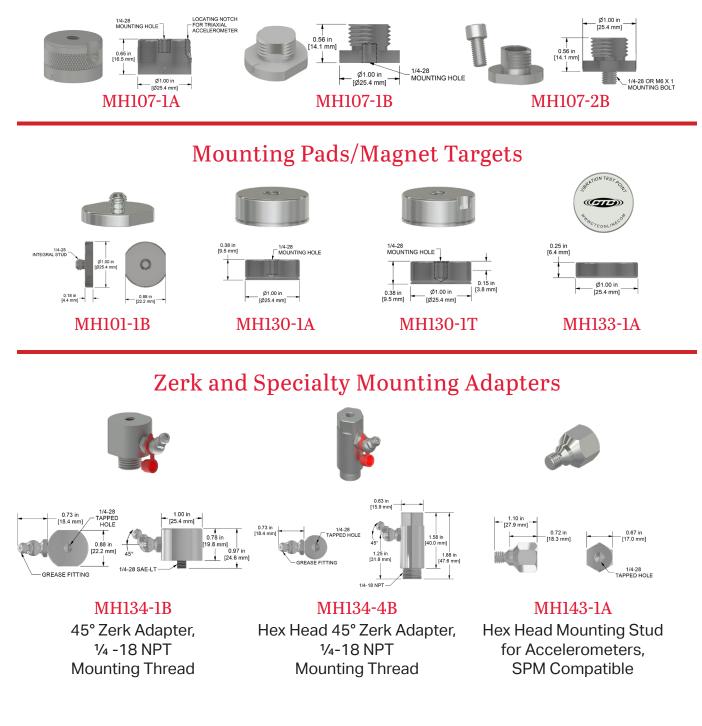
made from Neodymium Iron Boron





Accelerometer Quick Disconnects

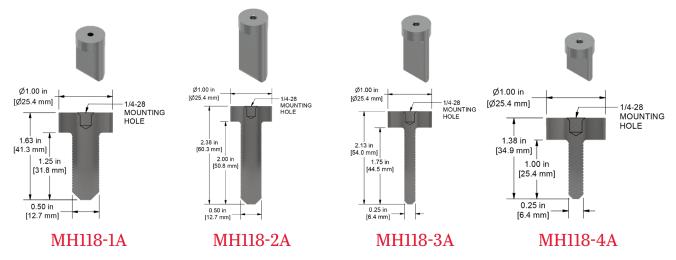
CTC's quick disconnects are ideally suited for triaxial sensor use. The permanently mounted stud creates a consistent mounting location for portable routes. The receptacle features a triaxial locating notch and 1/4 turn engagement onto the stud, ensuring the sensor is oriented in the same position for every reading.





Motor Fin Probe Pads

Take measurements from hard-to-reach places.



Our fin mount probes are perfect for narrow measurement points in motors, turbines, and other machinery. Fin mounts can be used for portable route measurements or permanently mounted accelerometers.

Accelerometer Installation Tool Kit



MH117 SERIES Spot Face and Pilot Hole Drill in One Operation, Option for Taps and Ratcheting Tap Handle Included

High Speed Steel End Mill Tool Kits

Available Thread Sizes ¹⁄4-28 10-32 M5x.8 M6x1 M8x1.25 Available End Mill Diameters % in., 1 in., 1¼ in. % in., 1 in. % in. 1 in., 1¼ in. 1¼ in.

Carbide Tipped End Mill Tool Kits

Available Thread Sizes ¹⁄4-28 M8x1.25 Available End Mill Diameters % in., 1 in., 1¼ in. 1¼ in.



Backed by our industry-leading warranty www.ctconline.com 585-924-5900 20 CTC offers a wide array of 4-20 mA output solutions for industrial applications. CTC's standard 4-20 mA loop-powered vibration sensors are available with velocity as well as acceleration output measurement options. CTC's loop-powered sensor line also includes a dual output option, with both 4-20 mA output and dynamic output configurations in one sensor. Other options include 24 VDC powered transmitters that power standard IEPE accelerometers and convert the vibration to a powered 4-20 mA signal. These transmitters also offer a 4-20 mA output for temperature when coupled with CTC dual output vibration and temperature sensors.

Velocity & Acceleration

LP200 Series sensors for velocity and LP300 Series sensors for acceleration come in top or side exit connector, integral cable, and armored integral cable options.



LP200 Velocity Output, Top Exit or Side Exit



LP300 Acceleration Output, Top Exit or Side Exit



PMX Series Fiberglass, Relay and Display Enclosure, Input Options: 1 to 4 Single Output Loop Power Sensors, Optional Stack Light



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CTC SIGNAL CONDITIONERS

CTC's SC300 Series Signal Conditioners are fully customizable for your application's needs and price point. All SC300 Series Signal Conditioners provide process control signals to a PLC, DCS, or SCADA system that are proportional to the vibration levels set within the signal conditioner and come with a built in temperature output. The SC310/SC311 offers a single vibration band output. The SC320 series features Dual Band Technology, which allows the user to configure two independent process control output signals from one sensor. This feature allows for the monitoring of two separate vibration/frequency bands with one device, such as both standard vibration monitoring and ultrasonic early bearing fault detection. One band can be configured for monitoring a standard vibration range, and the second band can be configured for monitoring the ultrasound range. Limited to 100 mV/g accelerometers, the SC150 provides over \$100 in savings over the SC300 Series without compromising on its excellence.

4-20 mA Enclosures

CTC's Signal Conditioner Enclosures are turnkey solutions, which come fully populated with signal conditioners, power supply, and terminal blocks for sensor terminations. The signal conditioners are available pre-configured based on customer-specific requirements. Terminal blocks are provided for easy sensor terminations. These terminal blocks are pre-wired to the signal conditioners, and the outputs from the signal conditioners are wired to terminal blocks for integration into PLC/DCS systems.



SCE SERIES **Fiberglass or Stainless** Steel, Capacity Options: 1 to 8 SC Series Signal Conditioners





SCD100 SERIES Fiberglass, Relay & Protection for 1 to 4 SC Series Signal Conditioners, **Optional Stack Light**



PXD SERIES Fiberglass, Relay & Protection for 1 to 4 PRO Line Proximity Probe Drivers, **Optional Stack Light**

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CTC offers a complete line of proximity probe systems designed and built to endure the harshest industrial environments. Proximity probes systems are available with probe tip sizes in FFv[™] 5 mm, 8 mm, 11 mm, and 25 mm diameters. The variety of probe sizes offered allows accurate and precise machinery measurements for applications involving radial dynamic, axial rotor position, and thermal case expansion measurements.



TMP products, are line of lightweight and low profile test and measurement instruments, are thoughtfully engineered to provide efficient and reliable research-grade data measurements at the industry's lowest price point, so you can save money without sacrificing quality or durability.

Test and Measurement Accelerometers

Our lightweight, low profile test and measurement accelerometers are suitable for many laboratory testing and general purpose applications. Constructed with titanium cases and having frequency ranges up to 30 kHz, TMP sensors are among the highest quality vibration sensors in the world.



TEA110 0.81 in. (20.6 mm) Height, 0.35 oz. (10 g), 100 mV/g, ±10%



TEB110 1.05 in. (26.7 mm) Height, 0.35 oz. (10 g), 100 mV/g, ±10%



TCA110 0.81 in. (20.6 mm) Height, 0.35 oz. (10 g), 10 mV/g, ±10%



TCB110 1.05 in. (26.7 mm) Height, 0.35 oz. (10 g), 10 mV/g, ±10%

Test and Measurement Mounting Bases

Our lightweight, low profile mounting bases are designed for superior performance in research and development applications.



MHT130 Isolated Mounting Pad, 0.5 in (12.7 mm) OD, 0.2 in. (4.9 mm) Height



MHT154 Flat Surface Mounting Magnet, 0.58 in. (14.7 mm) OD, 0.33 in. (8.38 mm) Height, 15 lbs (6.8 kg) Pull Strength

Test and Measurement Cables and Connectors

We also offer a variety of TMP-compatible coaxial cabling and connectors.

Image: Second system
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