



# 4-160-1201

Accelerometers

## Accelerometer, Side Exit



### Applications

- Light Industrial
- Gear Boxes
- Motors
- Bearing Housing
- Pumps

### Features

- Two-wire, Current Driven
- Hermetically Sealed
- Electrical Isolated
- Single-Point Mounting
- Integral Cable Option

### Description

The 4-160-1201 side exit accelerometer is designed for applications requiring a low profile sensor. Ideal for use in multi-point experimental or light industrial vibration monitoring applications.

The two-wire current loop operating principle permits very long interconnecting cables to be used where necessary and at minimum expense since standard screened pair (or multi-pair) cables may be used. The sensor is mounted by means of a single 1/4-28 captive bolt.

The piezoelectric sensor and amplifier are contained within an inner metal enclosure which is electrically and thermally insulated from the outer stainless steel body. This arrangement prevents ground loops and minimizes the effects of thermal shocks and base strain. The inner enclosure is connected to the 0V of the two-wire system and is therefore an effective electrical screen. External connections are made via a side exit integral cable or electrical connector.



# 4-160-1201 Accelerometer, Side Exit

## Performance Specifications

<b>Operation Voltage/Current:</b>	18 to 28 VDC constant current source of 2-4 mA
<b>Output Signal:</b>	100 mV/g
<b>Dynamic Range:</b>	±50 g peak
<b>Frequency Range:</b>	2 Hz to 3 kHz (±5%) 1 Hz to 7 kHz (±10%) 0.5 Hz to 10 kHz (±3 dB)
<b>Transverse Sensitivity:</b>	Less than 5%
<b>Amplitude Linearity:</b>	±1% or better
<b>Temperature Sensitivity:</b>	Less than 5% to +250°F (+121°C)
<b>Residual Electrical Noise:</b>	Less than 0.1 mg (2 Hz to 21 kHz)
<b>Signal Transmission:</b>	2 wire system, electrically isolated from body up to 500 VAC
<b>Output Impedance, Max.:</b>	<100 ohm

## Environmental

<b>Acceleration Limit</b>	
<b>Vibration:</b>	±50 g, peak
<b>Shock:</b>	5,000 g, peak
<b>Temperature</b>	
<b>Operational:</b>	-58°F to +250°F (-50°C to +121°C)
<b>Storage:</b>	-67°F to +302°F (-55°C to +150°C)
<b>Environmental Sealing:</b>	Sealed to IP67

## Mechanical

<b>Resonant Frequency:</b>	21 kHz
<b>Mounting:</b>	1/4-28 captive bolt
<b>Mounting Torque:</b>	2 to 5 ft. lbs.
<b>Weight:</b>	5 oz. without cable
<b>Case Material:</b>	316L stainless steel

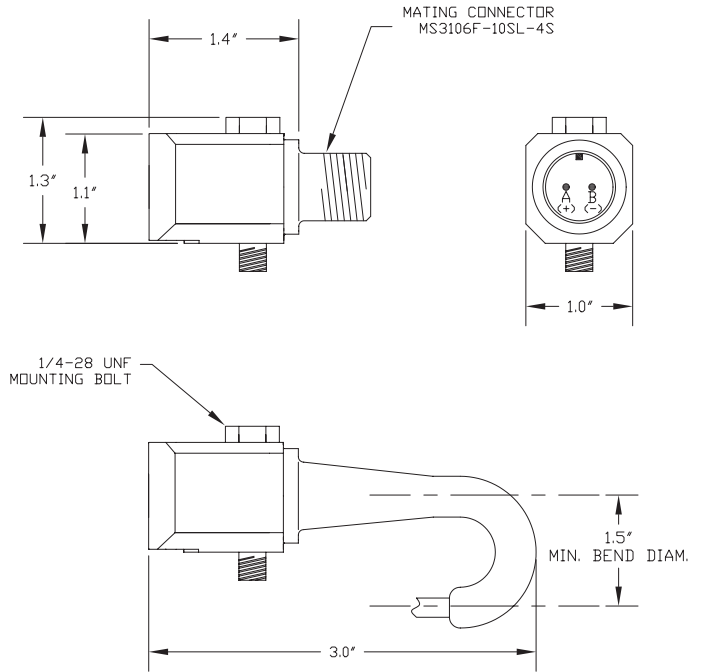
## Optional Accessories

1. Mating Connector P/N 619571-1004
2. Cable assembly P/N 780400-91-XXXX (XXXX indicates length in inches e.g.: 10 ft cable = 120 inches is P/N 780400-91-0120). Assembly includes mating connector to prepared wire.

## Ordering Information

Mating connectors and cable assemblies are not furnished and must be ordered separately. In keeping with CEC's policy of continuing product improvement, specifications may be changed without notice. See table for type numbers and available configurations.

NOTE: For submersed applications down to 100 ft., use model 4-160-2201-0X.



Type	Connection
4-160-1201	Side Connector
4-160-2201-01	Integral 10 ft. cable
4-160-2201-02	Integral 30 ft. cable
4-160-2201-03	Integral 50 ft. cable
4-160-2201-04	Integral 100 ft. cable

CEC Vibration Products • 746 Arrow Grand Circle • Covina, California 91722 • USA  
(626) 938-0200 • (800) 468-1345 • Fax: (626) 938-0202 • www.cecvp.com



[www.instrumentation.it](http://www.instrumentation.it)

**INSTRUMENTATION DEVICES SRL**

Via Acquanera 29, 22100 COMO (Italy) tel. +39.031.525391 - fax +39.031.507984 - info@instrumentation.it