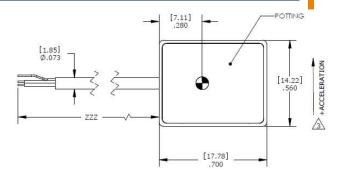


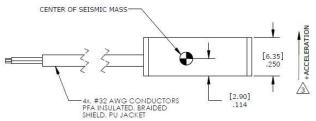




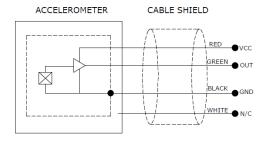


## **DIMENSIONS**





Direction of measurement must be specified at time of order. See Ordering Info on page 3.



## **MODEL 8101 ACCELEROMETER**

#### **SPECIFICATIONS**

- Piezoelectric Linear Accelerometer
- ±40g & ±160g Dynamic Ranges
- Wide Bandwidth to 6000Hz
- Great Value, Low Cost

**The Model 8101** is a low cost, plug & play accelerometer designed for general purpose vibration measurements. The accelerometer is available in ±40g or ±160g range and provides a flat frequency response up to >6kHz. Featuring stable piezo-ceramic crystals in shear mode, the accelerometer incorporates full power and signal conditioning and is offered in two measurement direction options (X or Z axis).

#### **FEATURES**

- Two Measurement Directions
- 7 to 36Vdc Excitation Voltage
- Potted Construction
- Piezo-Ceramic Shear Design
- -40° to +85°C Operating Range
- Integral Cable for Plug & Play

### **APPLICATIONS**

- Asset Monitoring
- Data Loggers
- Impact Monitoring
- Machine Health Monitoring
- System Wake-Up Switch
- Product R&D

#### PERFORMANCE SPECIFICATIONS

All values are typical at +24°C, 80Hz and 7Vdc excitation unless otherwise stated. Measurement Specialties reserves the right to update and change these specifications without notice.

±40	±160
50.0	12.5
2-6000	2-6000
>30000	>30000
±2	±2
<8	<8
2000	2000
0.008	0.008
160	160
40	40
16	16
	50.0 2-6000 >30000 ±2 <8 2000 0.008 160 40

2Hz to 10kHz

Notes ±30% ±1dB

**ELECTRICAL** 

 $\begin{array}{lll} \text{Bias Voltage (Vdc)} & 2.5 \\ \text{Full Scale Output Voltage (V)} & \pm 2 \\ \text{Total Supply Current ($\mu$A)} & 800 \\ \text{Excitation Voltage (Vdc)} & 7 \text{ to } 36 \\ \text{Output Impedance ($\Omega$)} & <100 \\ \text{Insulation Resistance ($M$\Omega$)} & >100 \\ \text{Shielding} & 100\% \end{array}$ 

@100Vdc

Ground Isolation Isolated from Mounting Surface

Warm-up Time (msec) 30

**ENVIRONMENTAL** 

Temperature Response (%) -20/+20 from -40°C to +85°C

Operating Temperature (°C) -40 to +85 Storage Temperature (°C) -40 to +85

Humidity (Active Element & Electronics) Hermetically Sealed Humidity (Case) Hermetically Sealed Epoxy Sealed, IP65

**PHYSICAL** 

Case Material Anodized Aluminum

Cable 4x #32 AWG Conductors PFA Insulated, Braided Shield, PU Jacket

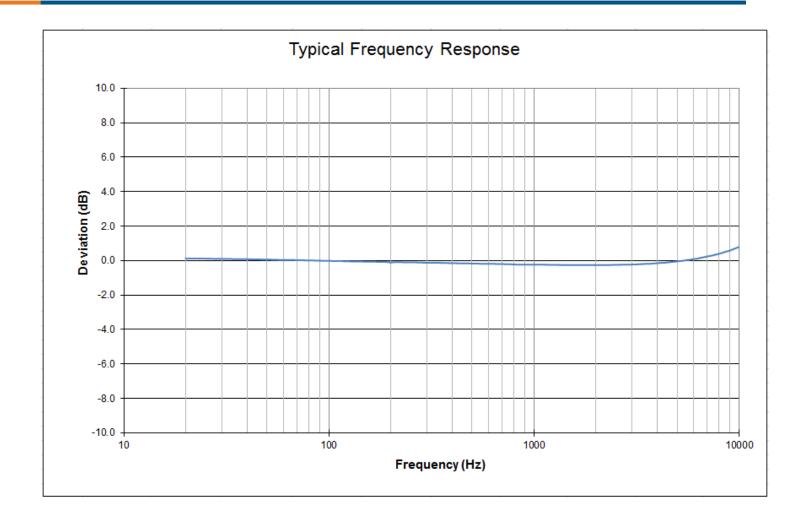
Weight (grams) 3.6 Cable not included

Mounting Epoxy or Double-sided tape

Calibration supplied: CS-SENS-0100 NIST Traceable Amplitude Calibration at 80Hz

Optional accessories: CS-FREQ-0100 NIST Traceable Amplitude Calibration from 20Hz to ±1dB Frequency Response Limit

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### **ORDERING INFORMATION**

Example: 8101-0040X-120

Model 8101, X-axis Measurement, 40g, 120inches (10ft) Cable

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