

High temperature tri-axial accelerometer



Features

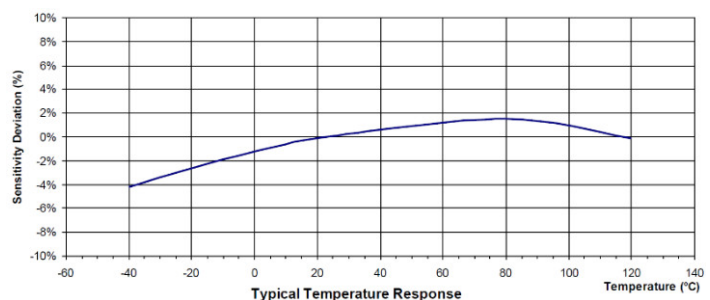
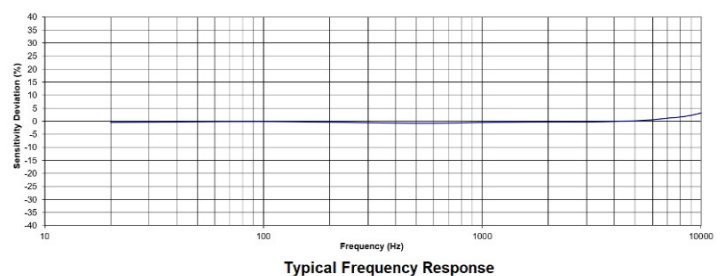
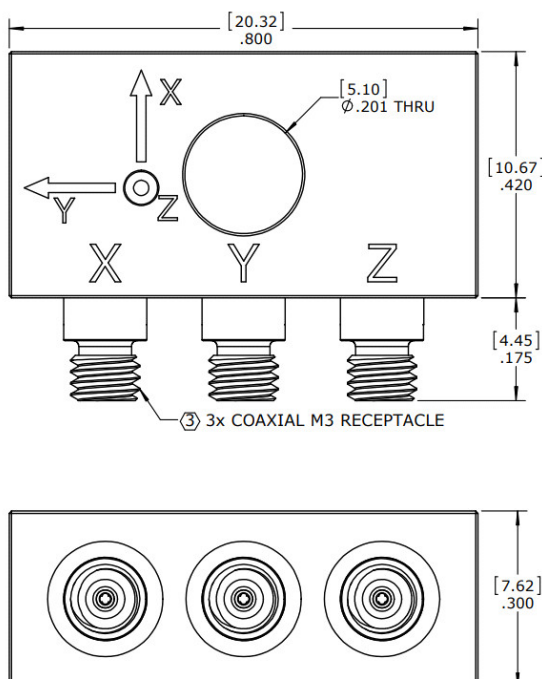
- Miniature size
- High-temp application
- Hermetic seal
- Annular shear mode
- Wide frequency response
- Shock duration

Application

- Vibration monitoring
- Shock testing
- Satellite testing
- Modal analysis
- Aircraft testing

Description

The model 734P is a miniature piezoelectric accelerometer designed specifically for tri-axial vibration measuring at high temperature environment. Miniature size for compact structures and light weight test purpose. The unit is hermetically sealed and ideal for use in extreme environments. This sensor is the industry standard for vibration/shock accelerometers. The model 734P features a central hole configuration for high frequency mounting. The accelerometer is a self-generating device that requires no external power source for operation. Model 734P operating in annular shear mode. These specially designed crystals exhibit low base strain sensitivity, high resonance frequency, and excellent output stability over time. Signal ground is connected to the outer case of the unit. The accelerometer features three M3 side connector and requires a low-noise coaxial cable for error-free operation. Senter's model 12P-3 is a M3 to BNC breakout low noise cable for the sensor.



Specification

All values are typical at +24°C (+75°F) and 100Hz unless otherwise stated

SENSITIVITY, TYPICAL	1.5	pC/g
SENSITIVITY, MINIMUM	1.2	pC/g
FREQUENCY RESPONSE ±5%	1-8000	Hz
FREQUENCY RESPONSE ±3dB	0.5-10000	Hz
RESONANT FREQUENCY	32	kHz
TRANSVERSE SENSITIVITY	<5	%
TEMPERATURE RESPONSE, -70 to +260°C	±10	%
LINEARITY	±1	%FSO
DYNAMIC RANGE	±500	g
SHOCK LIMIT	±1000	g

PARAMETERS	VALUE	UNITS
INTERNAL RESISTANCE (@100Vdc)	>10	GΩ
INTERNAL RESISTANCE @ +260°C (+500°F)	>10	MΩ
CAPACITANCE (NOMINAL)	250	pF
GROUNDING	Case Grounded	
INSULATION RESISTANCE (@100Vdc)	>100	MΩ
OPERATING TEMPERATURE	-70 to +260	°C
HUMIDITY	Hermetically Sealed	
MATERIAL (Casing)	Titanium Alloy	
SENSING ELEMENT	Piezo Ceramic	
WEIGHT	6.8	Grams
MOUNTING	Screw / Adhesive	

Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0452 / PM0242	10-32 x5/8 screw and insulating washer	1pc included
PM0503 / PM0242	M5 x16 screw and insulating washer	
PF0095	Adhesive epoxy-Loctite® #401	Optional
12P-3	3 meter low noise mating cable with M3(male) to BNC(male) connector	Optional
14P-3	3 meter low noise mating cable with M3(male) to 10-32(male) connector	Optional
IN-06	3 channels charge converter	Optional
IN-07	1 channel inline charge converter	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration



Ordering information

734	P	-	A
Model	Output signal	-	Mounting screw
734	P=Charge output	-	A=10-32 x5/8 screw and insulating washer B=M5 x16 screw and insulating washer

