

RMS output tri-axial accelerometer

Description

Model 333C is a tri-axial piezo-electrical accelerometer permitting vibration measurements. 333C features an annular shear ceramic crystal which exhibits excellent output stability over time. Each axial of the accelerometer incorporates an internal circuit with in a two-wire system which transmits the 4~20mA current output through the same cable that supplies the voltage excitation. Signal ground is internal shielded and isolated from the outer case of the unit. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded stainless-steel construction provides a hermetic housing. The standard M12 5-pins connector provides long-term stability over the operating temperature range. In addition to adhesive mounting, 333C offer two through holes for screw mounting on the test object. The 333C provides wide frequency response and shock resistance, which is ideal for industrial vibration monitoring under incidental shock environment. Senter's model 18T-L is a M12 5-pins connector mating cable for the sensor.

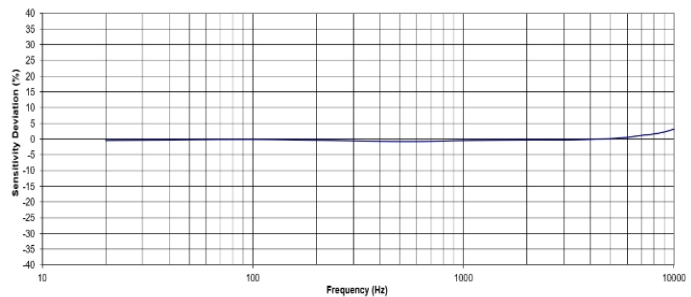
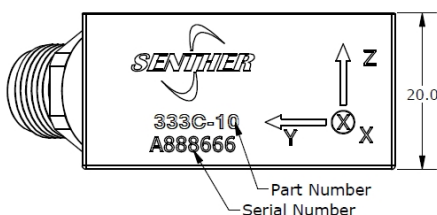
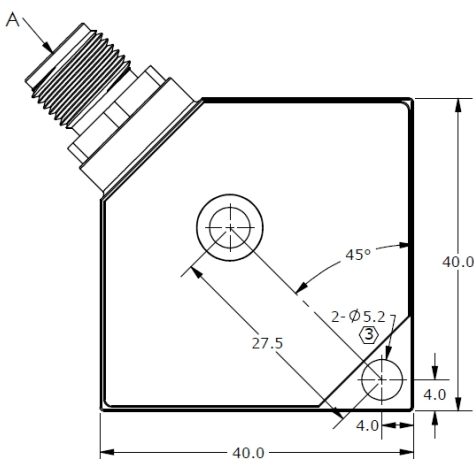


Features

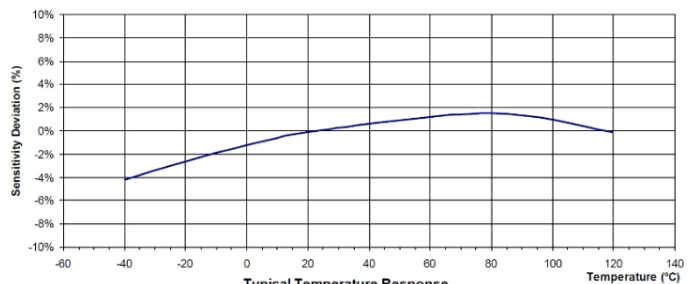
- Tri-axial accelerometer
- 4-20mA RMS signal
- Hermetic seal
- Case isolated
- EMI / RFI shielded
- Shock resistance

Application

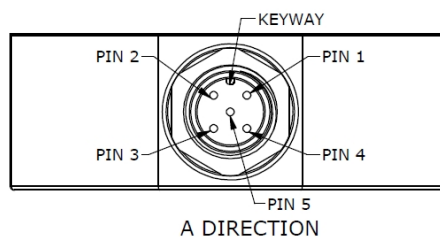
- Blowing machine
- Gear box monitoring
- Bearing detection
- Machine monitoring



Typical Frequency Response



Typical Temperature Response



Specification

Typical at +24°C (+75°F), 24Vdc and 100Hz, unless otherwise stated.

Part Number	333C-5	333C-10	333C-20	333C-50	333C-100	333C-500	
Acceleration Range	5	10	20	50	100	500	g, RMS
FSO ±10% 25°C	16	16	16	16	16	16	mA
Frequency Response ±10%	5-4000	5-5000	5-7000	5-7000	5-7000	5-7000	Hz
Frequency Response ±3dB	3-10000	3-10000	3-13000	3-13000	3-13000	3-13000	Hz
Resonant Frequency	20	20	32	32	32	32	kHz
Transverse Sensitivity	<5	<5	<5	<5	<5	<5	%
Temperature Response, -55 to +85°C	±10	±10	±10	±10	±10	±10	%
Non-Linearity	±1	±1	±1	±1	±1	±1	%FSO
Shock Limit	2000	2000	5000	5000	5000	5000	g
Warm-up Time	<2	<2	<2	<2	<2	<2	second
Weight	75	75	75	75	75	75	Gram

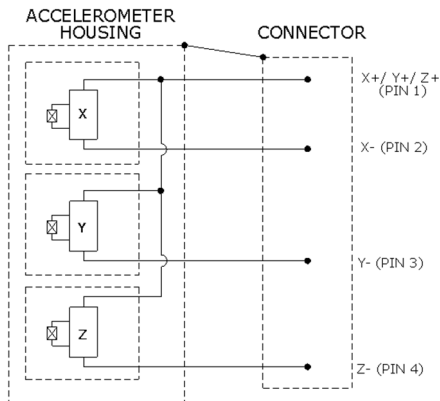
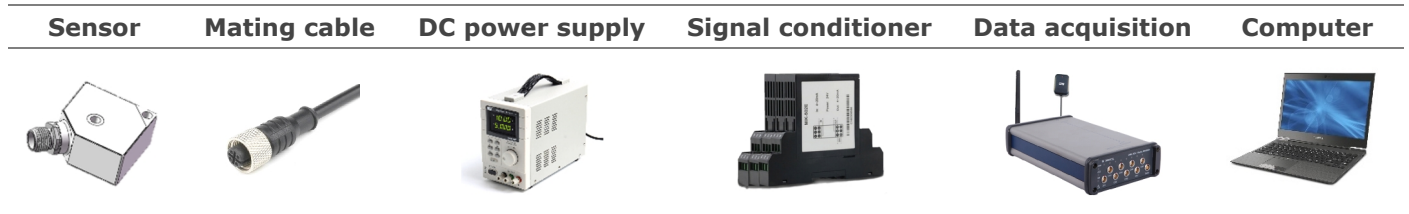
Specifications	Standard	Units
Bias Current ±10%	4	mA
Supply Voltage	12 to 30	Vdc
Output Impedance	<100	Ω
Case Insulation (@100Vdc)	>100	MΩ
Operating Temperature	-55 to +85°C	°C
Humidity	Hermetically Sealed	
Case Material	316L Stainless Steel	
Sensing Element	Piezo Ceramic (Shear)	
Connector	5 Pin M12	

Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0111	M5x25 cup socket head mounting screw	2pcs Included
18T-10	10 meter mating cable(PVC) with M12 connector	Optional
IN-91	Portable vibration analyzer	Optional
IN-SDG	8 channels data acquisition system	Optional

Measurement configuration



With mating cable:

Wire definition	
1	Brown
2	White
3	Blue
4	Black
5	Gray

Ordering information

333	C	-	50	-	5
Model	Output signal	-	Range	-	Cable length
333	C=Acceleration RMS signal by loop current output	-	5=5g 10=10g 20=20g 50=50g 100=100g 500=500g	-	5=5 meter Blank=M12 connector output

