

Industrial bi-axial accelerometer

Description

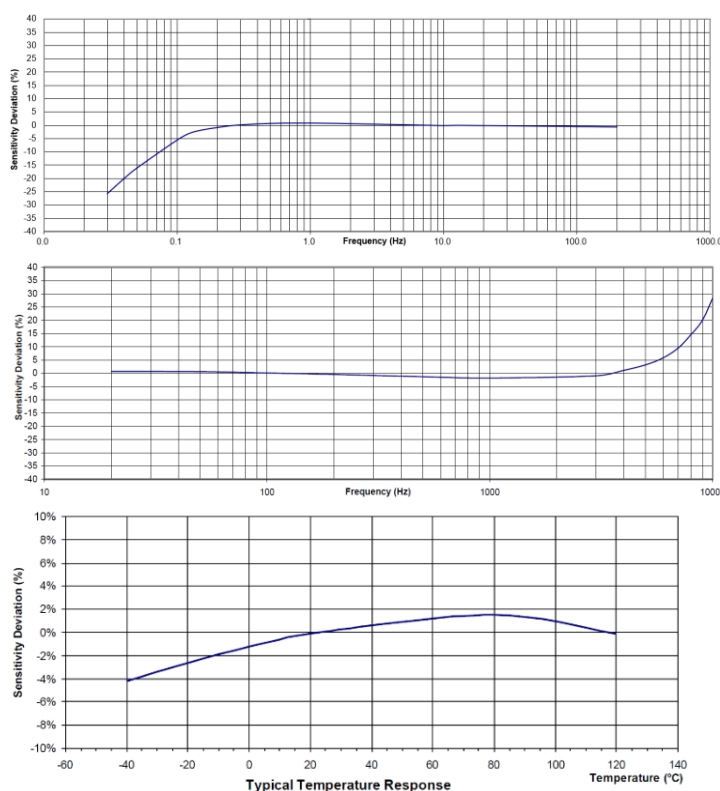
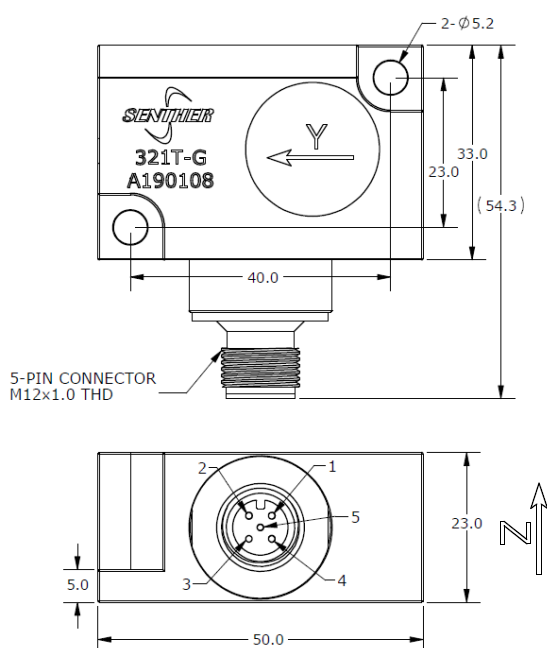
Model 321A is a general purpose bi-axial IEPE accelerometer permitting low frequency vibration measurements. 321A features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit with in a two-wire IEPE system which transmits its low impedance voltage output through the same cable that supplies the constant current power. 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 glass insulated connector provides long-term stability over the operating temperature range. In addition to adhesive mounting, 321A has $\varnothing 5.2$ through holes for M5 screws mounting on the test object. The 321A provides low frequency response and shock resistance, which is ideal for high structure vibration monitoring under incidental shock environment. Model 321T is available for temperature measurement. Senter's model 18T-L is a M12 connector mating cable for the sensor.

Features

- Low frequency response
- Bi-axial output
- High sensitivity
- Hermetic seal
- EMI / RFI shielded
- Temperature signal available

Application

- Wind blade monitoring
- Tower testing
- High structure monitoring



Specification

Typical at +24°C (+75°F), 24Vdc, 4 mA and 100Hz, unless otherwise stated.

Part Number	-5-LF	-10-LF	-50	-100	-200	-500	
Range	±5	±10	±50	±100	±200	±500	g
Sensitivity ±10%	1000	500	100	50	25	10	mV/g
Freq. Resp. ±5%	0.3-4000	0.3-4000	1-5000	1-5000	1-6000	1-6000	Hz
Freq. Resp. ±3dB	0.1-6000	0.1-6000	0.3-7000	0.3-7000	0.3-8000	0.3-8000	Hz
Residual Noise	0.00015	0.0002	0.0005	0.0005	0.0007	0.0010	g RMS
Warm-up Time	<5	<5	<5	<5	<5	<5	Second
Shock Limit	2000	2000	2000	2000	2000	2000	g
Bias Voltage	10 to14						Vdc
Supply Voltage	18 to 30						Vdc
Supply Current	2 to 10						mA
Transverse Sensitivity	<5						%
Non-Linearity (BFSL)	±1						%FSO
Temp. Resp., -55 to +125°C	±10						%
Output Impedance	<100						Ω
Operating Temperature	-55 to +125						°C

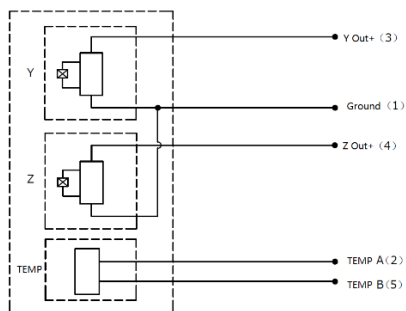
Temperature sensor	Standard	Units
Type	PT1000	2 wires
Measure range	-55~125	°C
Accuracy (B class)	0.3+0.005* t	°C
Overall configuration	Standard	Units
Case Material	316L Stainless Steel	
Protection	IP68	
Insulation Impedance (@500Vdc)	>200	MΩ
Lighting Insulation (@AC 4000V)	>60	Second
Operating Temperature	-55 to +125	°C
Weight	<250	gram

Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0095	M5x12 socket head cap screws	2pcs Included
PF0095	Adhesive epoxy-Loctite® #401	Optional
18T-10	10 meter mating cable(PVC) with M12 connector	Optional
19A-10-B1	10 meter mating cable(TPU) with M12 to BNCx2 connector	Optional
19A-10-B3	10 meter mating cable(TPU) with M12 to BNCx3 connector	Optional
IN-03	3 channels IEPE signal conditioner	Optional
IN-91	Portable vibration analyzer	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration



Model 18T mating cable:

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

Ordering information

321	A	- 10	- LF	- M1
Model	Output signal	- Range	- Low frequency option	- Special housing
321	A=IEPE output T= IEPE and temperature signal output	- 5=5g 10=10g 50=50g 100=100g 200=200g 500=500g	- LF=Low frequency	- Groove for adhesive 