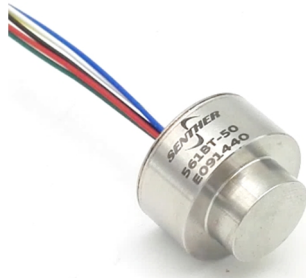


Embedded tri-axial accelerometer with PT1000



Description

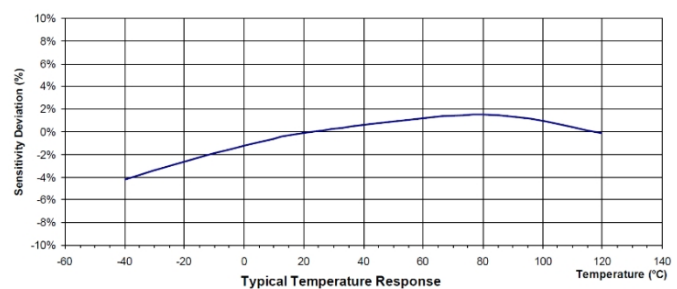
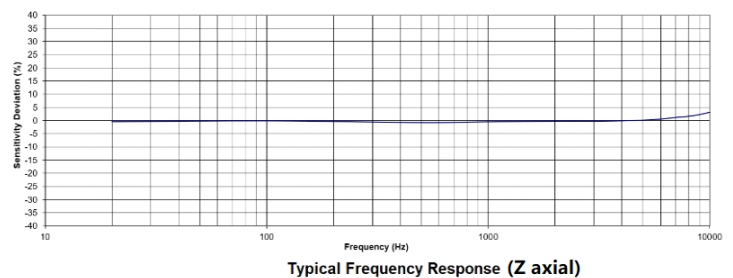
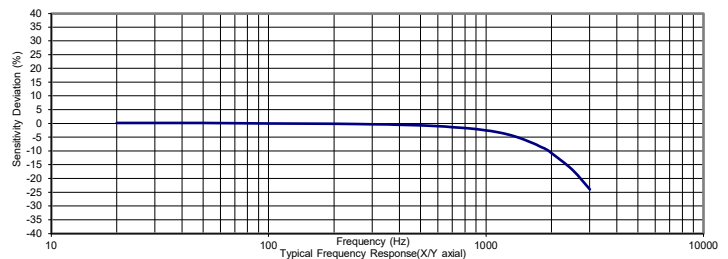
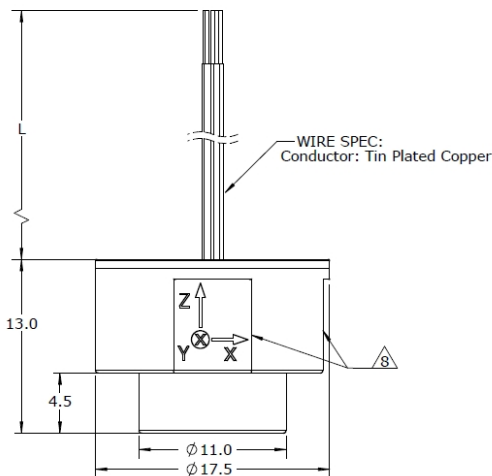
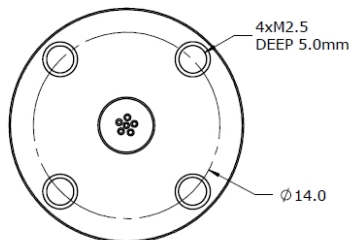
Model 561BT is a tri-axial accelerometer permitting simultaneous vibration monitoring and temperature measurements. 561BT combine three acceleration sensing elements which exhibits excellent output stability over time. The accelerometer incorporates special internal circuit in (3X)three-wire signal system which powered by voltage excitation and output with voltage signal. Excellent electrical design enables the low current consumption that ideal for wireless device with battery power supply. Signal ground is isolated from housing and internal shielded. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The stainless steel construction provides a strong water-proof housing. Integrated cable is reliable for field mounting and electrical connection. Compact configuration is fit with most of the portable testing device. The 561BT provides wide frequency response, which is ideal for dynamic vibration and shock measurement especially for wireless device.

Features

- Miniature size
- Adhesive mounting
- Wide temperature range
- Wide frequency response
- Cost effective

Application

- Embedded monitoring
- Shock recorder
- Machine monitoring



Specification

All values are typical at +24°C (+75°F), 3.3Vdc and 100 Hz unless otherwise stated.

Performance

Measurement Range, Z axis (X and Y axes)	±50 (±16)	g
Sensitivity ±10%, Z axis (X and Y axes)	30 (62.7)	mV/g
Frequency Range, ±10%, Z axis (X and Y axes)	5-7000 (0-1000)	Hz
Frequency Range, ±3dB, Z axis (X and Y axes)	2.5-12000 (0-1600)	Hz
Resonant Frequency, Z axis	38	kHz
Transverse Sensitivity	<5	%
Broadband Resolution Z axes	0.0008	Equiv. g RMS
Broadband Resolution X and Y axes	0.012	Equiv. g RMS
Non-Linearity	±1	%
Warm-up Time	<0.2	Second
Shock Limit	±5000	g pk

Environmental

Temperature Range	-40-85	°C
-------------------	--------	----

Electrical

Bias Voltage (ZMO)	VCC/2 ±0.1	Vdc
Full Scale Output Voltage	±1.5	V
Output Impedance	<100	Ω
Insulation Resistance (@ 50Vdc)	>100	MΩ
Supply Voltage	3.0-3.6	Vdc
Total Supply Current	<0.5	mA
Grounding	Isolated	

Temperature Sensor

Type	PT1000	
Range	-50~120	°C
Precision (B)	0.3+0.005* t	°C

Physical

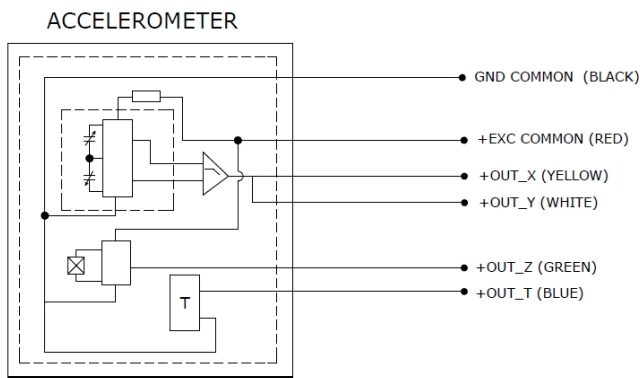
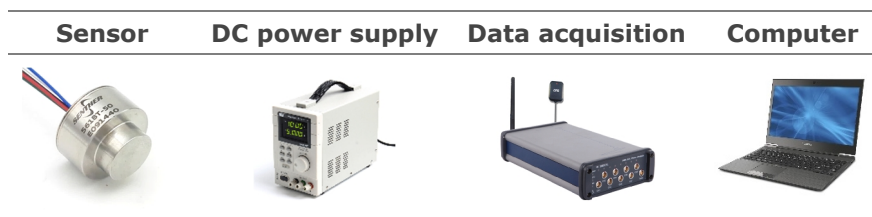
Weight	5.5	gm
Sensing Element, Z axis	Ceramic/Shear	
Sensing Element, X&Y axes	MEMS	
Housing Material	Stainless Steel	
Sealing	Epoxy Sealed	

Accessories

Calibration certificate included.

Part Number	Description	Availability
IN-91	Portable vibration analyzer	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration



Ordering information

561	BT	-	50	-	0.05
Model	Output signal	-	Range	-	Cable length
561	B=Voltage excitation/output T=Temperature output	-	50=50g	-	0.05=0.05meter=5cm



Senther reserves the right to make changes to any products or technology herein to improve reliability, function or design. Senther does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights nor the rights of others.