

Bi-axial real wave output accelerometer



Features

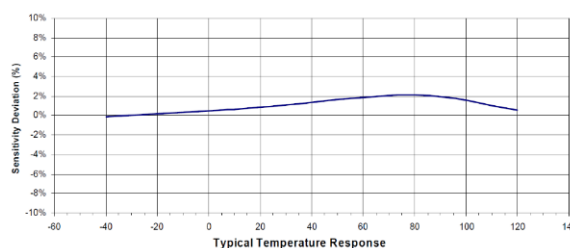
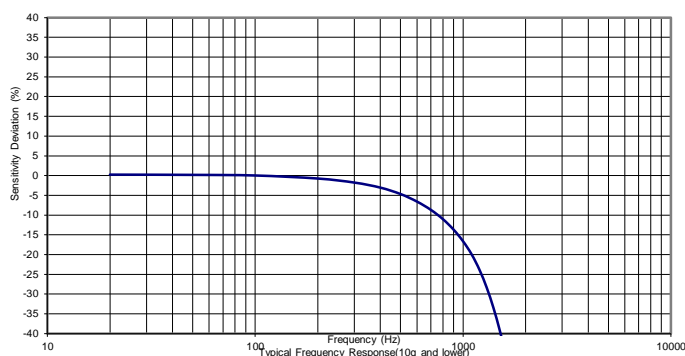
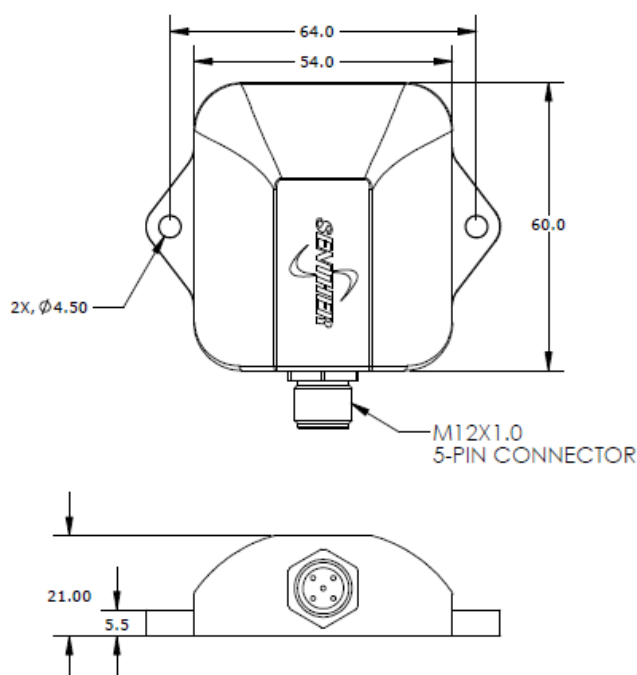
- 4~20mA current output
- Rugged design
- High sensitivity
- Hermetic seal
- Case isolated
- ESD protection
- Plug and play application
- EMI / RFI shielded

Application

- Train motion monitoring
- Civil engineering structures
- Automotive comfort
- Tower modal

Description

Model 824C is a bi-axial accelerometer which simultaneously measures acceleration and low-frequency vibration in two mutually perpendicular axial. 824C is bi-axial capacitive accelerometer family utilizes a silicon Micro-Electro-Mechanical System (MEMS) variable capacitance sensing element. The output signal is scaled as a voltage which is proportional to the applied acceleration, signal format is 4~20mA loop current. The accelerometer is powered by a single regulated supply between 12 to 30 Vdc. Thermal drift has been compensated by internal circuit for the best environment stability. The sensing element and electronics are contained in a water proof housing with a M12 5-pins connector. Signal ground is isolated from the test object that benefit from the anodized aluminum housing. The accelerometer can be mounted by M4 metric screw or adhesive. 824C is well-suited for a wide variety of R&D or OEM applications requiring low frequency measurements and reliability package. Model 18T-L is the mating cable for the sensor, refer below measurement configuration for wiring.



Specification

All values are typical at +24°C (+75°F), 12Vdc excitation and apply to each axis unless otherwise stated.

Items	Spec.	Unit
Acceleration range	±2	g
Sensitivity ±10%	4	mA/g
Bias Current ±5%	12	mA
Output range	4 to 20	mA
Frequency response ±5%	0-100	Hz
Electrical noise (Broadband Spectral)	2	μA
Resolution	0.2	mg
Repeatability	1	mg
Shock limit	1000	g
Transverse sensitivity	<3	%
Amplitude nonlinearity (BFSL)	±1	%FSO
Thermal bias shift	±2.5	%FSO
Thermal sensitivity shift, -40 to +85°C, REF. 24°C	±3	%
Power requirement	12 to 30	Vdc
Output impedance	<100	Ω
Insulation (@100Vdc)	>100	MΩ
Warm up time	<100	mSEC
Operation temperature	-45 to +85	°C
Protection	IP67	
Case material	Anodized aluminum	
Weight	130	克

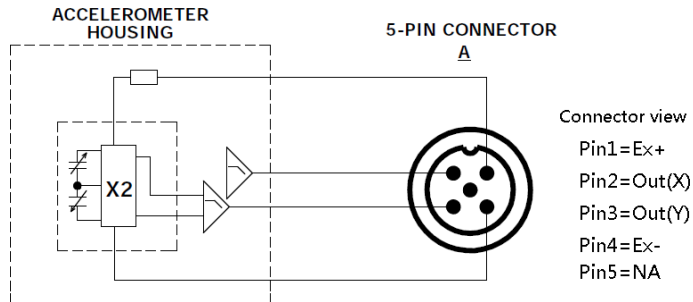
Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0113	M4x12 socket head cap screws	2pcs included
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
PJ0048	LEMO FGG-1B-307 connector	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration

Sensor	Mating cable	DC power supply	Signal conditioner	Computer
				



Model 18T mating cable:

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

Ordering information

824C	-	2
Model	-	Range
824C	-	2=2g 5=5g 10=10g

