

## Tri-axial CAN output accelerometer



### Features

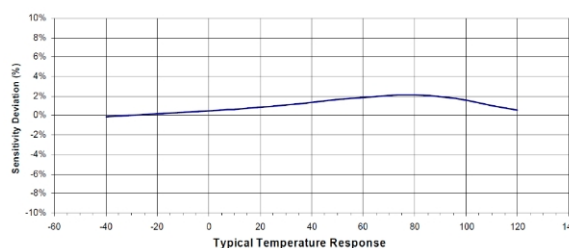
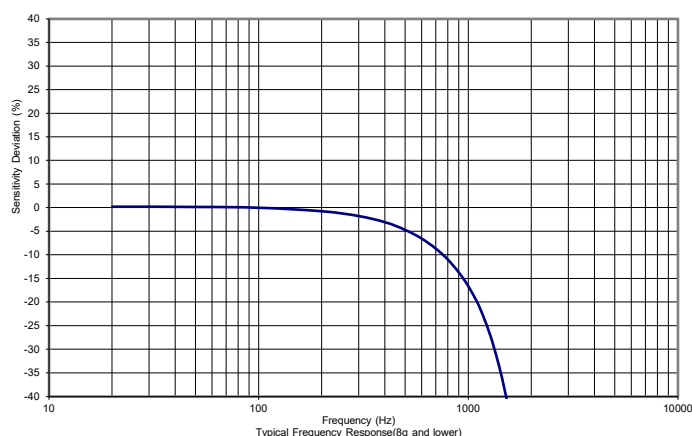
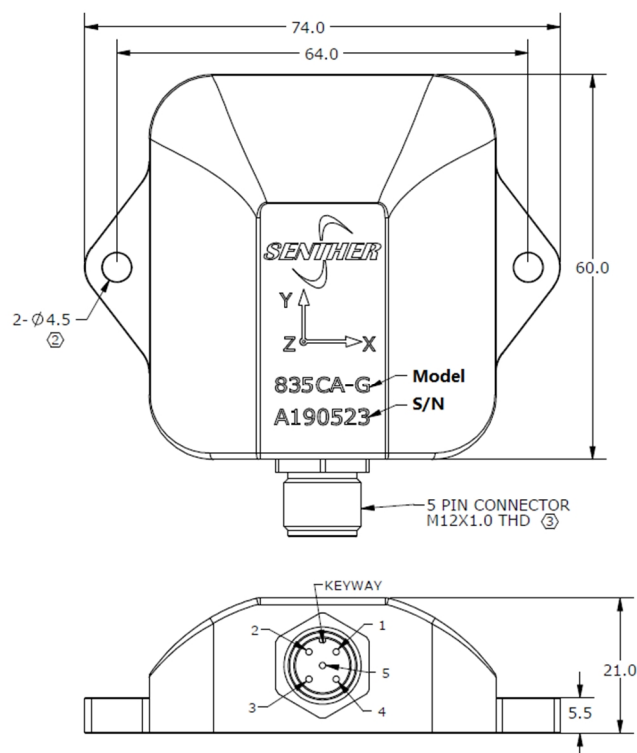
- CAN protocol
- High Resolution
- Rugged design
- Hermetic seal
- Case isolated
- Plug and play application
- EMI / RFI shielded

### Application

- Automotive road testing
- Civil engineering structures
- Railway comfort
- Aviation and aerospace

### Description

Model 835CA is a customizable CAN protocol triaxial accelerometer which simultaneously measures acceleration and low-frequency vibration in three mutually perpendicular axial. The sensing element is triaxial capacitive accelerometer family utilizes a silicon Micro-Electro-Mechanical System (MEMS) variable capacitance sensing element. The output signal is scaled proportionally to the applied acceleration, signal format can be CAN protocol defined by end user. The accelerometer is powered by a single regulated supply between 9 to 36 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. 835CA is well-suited for a wide variety of 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.

Model	835CA-2	835CA-4	835CA-8	
Acceleration range	±2	±4	±8	g
Frequency response ±5%	0-400	0-400	0-400	Hz
Residual noise	0.5	0.5	0.5	mg
Resolution	0.5	0.5	0.5	mg
Repeatability	1	1	1	mg
Shock limit	1000	1000	1000	g
Transverse sensitivity	<3	<3	<3	%
Amplitude nonlinearity (BFSL)	±1	±1	±1	%FSO
Thermal bias shift	±0.02	±0.02	±0.02	mg/°C
Thermal sensitivity shift, -40 to +85°C, REF. 24°C	±3	±3	±3	%
Protocol	CAN protocol	CAN protocol	CAN protocol	




Items	Spec.	Unit
Power requirement	9 to 36	Vdc
Insulation (@100Vdc)	>100	MΩ
Startup time	<100	mSEC
Operation temperature range	-40 to +85	°C
Protection	IP67	
Case material	Anodized aluminum	
Weight (W/O cable)	130	Gram

## 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	Data acquisition	Computer
			

## Connector/Pin

- 1 = Power +
- 2 = Power Ground
- 3 = CAN-H
- 4 = CAN-L
- 5 = NA

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

## Ordering information

<b>835</b>	<b>CA</b>	-	<b>2</b>
<b>Model</b>	<b>Output format</b>	-	<b>Range</b>
<b>835</b>	CA=CAN protocol	-	2=2g 4=4g 8=8g

