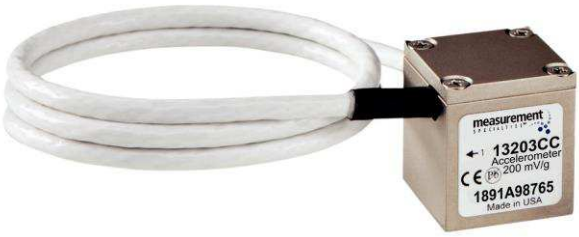


Eliminates management of calibration data

13203CC Analog Accelerometer

SPECIFICATIONS

- **Rugged Uniaxial Accelerometer**
- **DC Response, Silicon MEMS**
- **±6g & ±10g Measurement Ranges**
- **Interchangeable Sensors, Identical Calibrations**
- **±1.0% Typical Accuracy from -40°C to +85°C**

FEATURES AND BENEFITS

IdentiCal™ Interchangeable Sensor

IdentiCal™ Interchangeable Sensors eliminate the management of calibration data and allow convenient Interchangeability of individual sensors. With standardized sensitivity and offset, there is no need to enter new parameters for each unit. Perfect for high volume use.
volume use.

High Accuracy and Linearity over Wide Temperature Range

The output of the 13203CC sensor is directly proportional to the acceleration input along the measurement axis. The DC-coupled output is fully scaled, referenced, and temperature compensated from -40°C to +85°C. When used in demanding applications, the enhanced signal compensation makes the model 13203CC one of the most accurate accelerometers available.

Built-In Power Supply Regulation

The accelerometers also include input regulation to allow a range of 8.5 to 36Vdc excitation. Furthermore, reverse power protection is included up to voltages of -80 V constant supply and transients of +80 V for 550msec compatible with MIL-STD-704A.

The TE Connectivity model 13203CC is an interchangeable and rugged uniaxial accelerometer capable of accurately measuring acceleration under demanding environmental conditions. The sensors are fully encapsulated and sealed in a rugged 6061-T6 aluminum housing with electroless nickel finish. The electrical interface is provided by a reliable shielded and jacketed PFA insulated cable with optional connector installation. Its cubical form factor allows mounting with the sensing axis oriented in any direction.

Each accelerometer has been tested over the full operating temperature range from -40°C to +85°C and has a nominal full-scale output swing of ±2 Volts. The model 13203CC is available in ±6g and ±10g range and can be ordered with various bandwidth options.

The 13203CC provides enhanced accuracy and durability features to meet the challenges of your application. In addition to its robust construction, increased precision is achieved through improved offset and gain compensation

PERFORMANCE SPECIFICATIONS

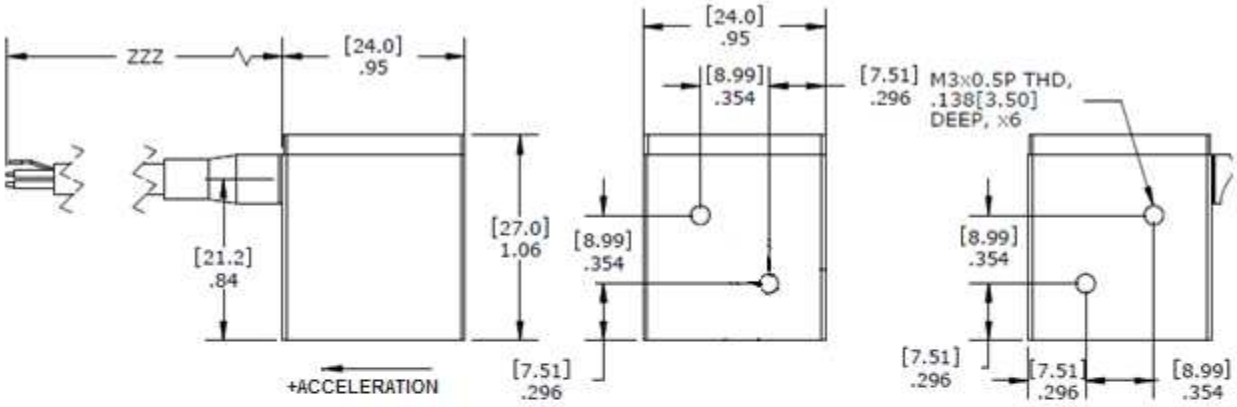
All values are typical at +24°C and 12Vdc excitation unless otherwise stated. TE Connectivity reserves the right to update and change these specifications without notice.

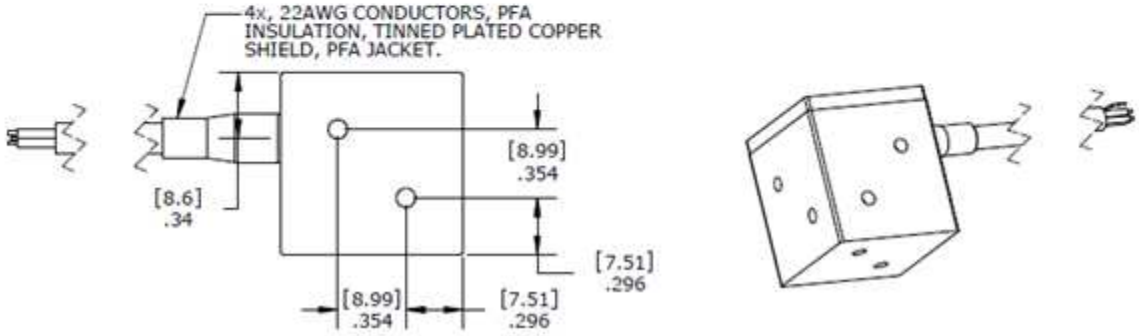
Parameters			
DYNAMIC			**Notes**
Dash Number	-R006	-R010	See Ordering Info
Range (g)	±6	±10	
Sensitivity (mV/g)	333 ±1%	200 ±1%	IdentiCal, see note 1 below
Frequency Response (Hz)	0-800	0-800	-3dB cutoff per BYYY option
Non-Linearity (%FSO)	±0.10	±0.10	FSR
Transverse Sensitivity (%)	<2	<2	<1% typical
Alignment Error (Degrees)	±0.25	±0.25	Deviation from ideal axes
Shock Limit (g)	±5000	±5000	0.5msec pulse
Resolution B031 filter option (mg)	0.58	0.58	31Hz -3dB cutoff
Resolution B094 filter option (mg)	1.02	1.02	94Hz -3dB cutoff
Resolution B800 filter option (mg)	2.98	2.98	800Hz -3dB cutoff
Spectral Noise (µg/√Hz)	100	100	
ELECTRICAL			
Zero Acceleration Output (V)	±2.50 ±0.015		Single ended
Excitation Voltage (Vdc)	8.5 to 36		
Excitation Current (mA)	12		No load, quiescent
Rejection Ratio (dB)	>120		DC
Full Scale Output (single-ended)	0.50 to 4.50Vpk (FSO=2V)		>10MΩ load
Output Resistance (Ω)	<100		
Insulation Resistance (MΩ)	>100		@100Vdc
Turn On Time (msec)	<50		
Ground Isolation	Isolated from Mounting Surface		
ENVIRONMENTAL			
Thermal Zero Shift (%FSO)	±1.0		-40 to +85°C
Thermal Sensitivity Shift (%)	±1.0		-40 to +85°C
Operating Temperature (°C)	-40 to +85		
Humidity (Active Element & Electronics)	Hermetically Solder Seal		
Humidity (Housing)	Epoxy Sealed, IP65		
PHYSICAL			
Case Material	Electroless Nickel Plated 6061-T6 Aluminum		
Cable	4x, #22 AWG Conductors, PFA Insulated, Tin Plated Shield, PFA Jacket		
Connector	9-pin DB9 Male Connector Installed at End of Cable for Option D		
Weight (cable not included)	38 grams		
Mounting	2x M3-0.5 Machine Screws		
Mounting Torque	5 lbf-in (0.56 N-m)		

Note 1 IdentiCal are interchangeable, all units have same range and sensitivity

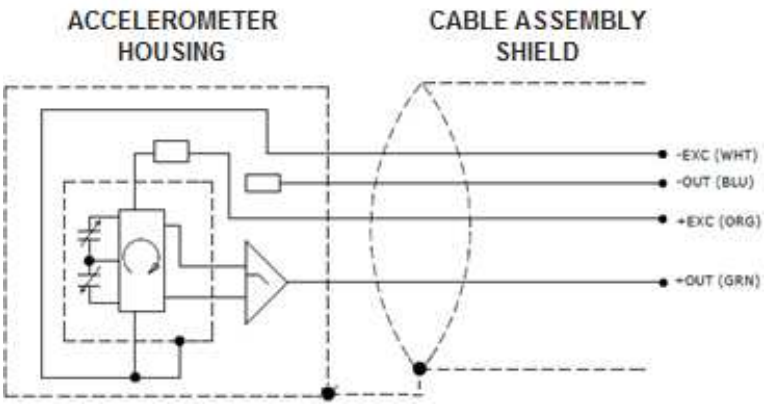
Calibration supplied:	CS-FREQ-0100	NIST Traceable Calibration with Sensitivity and Offset
Optional accessories:	34170B	Adaptor Plate for Flange Mounting

DIMENSIONS

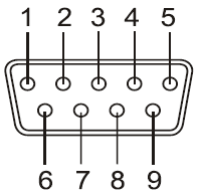




SCHEMATIC



Option D: DB9 Male Connector



Pin 1: +OUTPUT SIGNAL

Pin 2: -OUTPUT SIGNAL

Pin 3: NOT USED

Pin 4: NOT USED

Pin 5: NOT USED

Pin 6: NOT USED

Pin 7: NOT USED

Pin 8: +EXCITATION VOLTAGE

Pin 9: -EXCITATION VOLTAGE (GND)

ORDERING INFORMATION

13203CC	RXXX	BYYY	TZZZ	A/D

Range
R006 = ±6g
R010 = ±10g

Bandwidth
B031 = 0 to 31Hz
B094 = 0 to 94Hz
B800 = 0 to 800Hz

Cable Length
T004 = 4ft cable (standard option)
TZZZ = Contact factory for custom length (ZZZ in feet)

Termination
A = Tinned pigtail leads
D = 9-pin DB9M connector

Example; 13203CC-R006-B800-T004A
Model 13203CC, ±6g range, 0-800Hz bandwidth, 4ft cable with pigtail leads

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