

13203CC Accelerometer

Interchangeable, Rugged
Uniaxial Accelerometer
±1 g to ±15 g

Analog Accelerometer

The Measurement Specialties 13203CC is an interchangeable and rugged uniaxial accelerometer capable of accurately measuring acceleration under demanding environmental conditions. A tough, compact housing holds potted electronics and a shielded heavyweight cable. Its cubical form allows mounting with the sensing axis oriented in any direction.

The output of the 13203CC is directly proportional to the acceleration of its axis. The DC-coupled output is fully scaled, referenced, and temperature compensated. When used in demanding temperature environments, the 13203CC is one of the most accurate accelerometers available.

IdentiCal™ 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. 13203CC is perfect for high volume use.

FEATURES

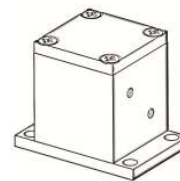
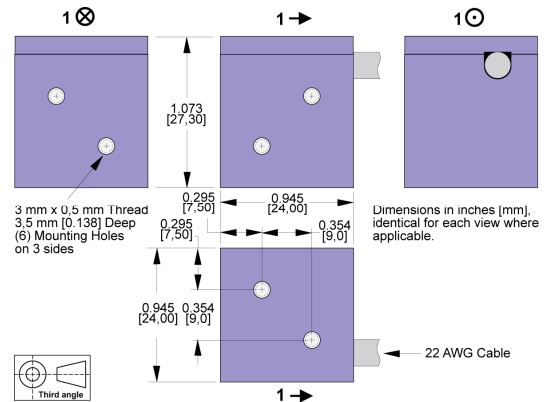
- High Accuracy and Linearity over Wide Temperature Range
- IdentiCal™ Interchangeable Sensor
- Rugged for Harsh Environments
- Small Size
- Built-in Power Supply Regulation
- Easy Installation
- Three Year Warranty

APPLICATIONS

- Vehicle dynamics
- Industrial/Production
- Construction Equipment
- Research & Development
- Test & Measurement
- Military/Aerospace

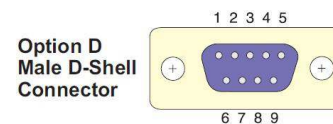


dimensions



Shown with mounting adapter 34170B (sold separately)

connections



Pin	1	2	3	4	5	6	7	8	9
Signal	A1+	Signal -	Not Used	Not Used	Not Used	Not Used	Not Used	+Vs	Gnd
Wire	Green	Blue						Orange	White

13203CC Accelerometer

performance specifications

$T_A = T_{min}$ to T_{max} : $8.5 \leq V_S \leq 36$ V: Acceleration = 0 g unless otherwise noted; within one year of calibration. Improved specifications available upon request.

PARAMETERS	Min	Typical	Max	Units	Conditions/Notes
Range & Sensitivity* at 25°C					Must specify via Option Rnnn, see Ordering Info
Option R015		0.130		V/g	
Option R010		0.200		V/g	
Option R006		0.330		V/g	
Option R005		0.400		V/g	
Option R004		0.500		V/g	
Option R003		0.660		V/g	
Option R002		1.000		V/g	
Option R001		2.000		V/g	
Sensitivity Drift 25°C to T_{min} or T_{max}		±1.0			
Offset at 25°C Zero g Bias Level		2.500		V	Maximum error ±50 mg of nominal at 25°C
Offset Drift 25°C to T_{min} or T_{max}		±1.0		g	
Alignment Deviation from Ideal Axes		±1.5			
Transverse Sensitivity		±0.25		%	Inherent sensor error, excluding misalignment
Nonlinearity		0.065		% FSR	Best fit straight line
Frequency Response	0		800	Hz	Upper cutoff per option Bnnn, -3 dB pt ±10%
Noise Density		100		µg/√Hz	$T_A = 25^\circ\text{C}$
Outputs					Measuring equipment >10 MΩ recommended
Output Voltage Swing	0.25		4.75	V	$I_{out} = \pm 0.5$ mA, Capacitive load <1000 pF
Power Supply (V_S)					
Input Voltage Limits	-80		+80	V	-80 V continuous, >38 V if ≤550 ms, duty <1%
Input Voltage Operating	+8.5		+36	V	
Input Current		12		mA	No load, quiescent
Rejection Ratio		>120		dB	DC
Temperature Range (T_A)	-40		+85	°C	
Mass		35		grams	
Shock Survival	-5000		+5000	g	Any axis for 0.5 ms, powered or unpowered

*Scale linearly with range option Rnnn; see Ordering Information

ordering info

