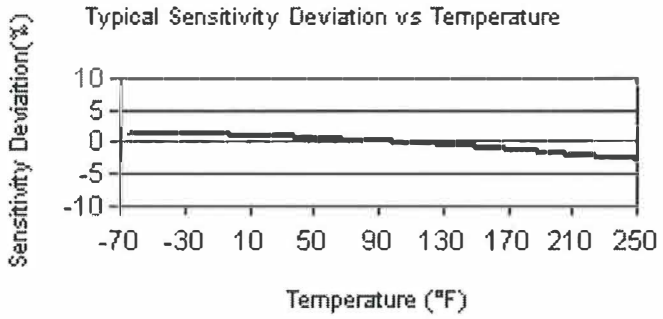
Model Number
9106C31

DOUBLE-ENDED TRANSFER STANDARD SHOCK ACCELEROMETER SYSTEM

Revision: NR
ECN #:

PERFORMANCE	English	SI	
Sensitivity (±20%)	0.5 mV/g	0.051 mV/(m/s²)	
Measurement Range	± 10,000 g pk	± 98,100 m/s² pk	
Frequency Range (±5%)	1 to 10,000 Hz	1 to 10,000 Hz	
Resonant Frequency	≥ 30 kHz	≥ 30 kHz	
Broadband Resolution (1 to 10000 Hz)	0.02 g rms	0.20 m/s² rms	[1]
Non-Linearity (per 1000g (98010m/s²))	≤0.1 %	≤0.1 %	[2]
Transverse Sensitivity	≤3 %	≤3 %	
ENVIRONMENTAL			
Overload Limit (Shock)	± 12,500 g pk	± 122,625 m/s² pk	
Temperature Range (Operating)	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
ELECTRICAL			
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<100 Ohm	<100 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Discharge Time Constant	0.5 to 2.0 sec	0.5 to 2.0 sec	
PHYSICAL			
Sensing Element/Geometry	Quartz/Shear	Quartz/Shear	
Housing Material	17-4 Stainless Steel	17-4 Stainless Steel	
Sealing	Hermetic	Hermetic	
Size (Hex x Height)	5/8 in x 1.43 in	5/8 in x 36.3 mm	
Weight	1.5 oz	42 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connector Position	Side	Side	
Mounting Thread (Shaker Mount)	¼-28 Male	¼-28 Male	
Mounting Thread (Unit Under Test Mount)	¼-28 Female	¼-28 Female	
ICP® SIGNAL CONDITIONER			
Voltage Gain (±1%)	1:1	1:1	
Low Frequency Response (-5%)	<0.1 Hz	<0.1 Hz	
Universal Input Power	100-240 VAC; 50-60 Hz	100-240 VAC; 50-60 Hz	[3]
Discharge Time Constant (0 to +50%)	10 sec	10 sec	[4]
Electrical Connectors (Input, Output)	BNC Jack	BNC Jack	
Size (Height x Width x Length)	6.3 in x 2.4 in x 11 in	16 cm x 6.1 cm x 28 cm	
Weight	1.51 lb	685 gm	

All specifications are at room temperature unless otherwise specified.



CALIBRATION UNCERTAINTY

MCS-A067 Primary calibration at 100 Hz, data acquired using K394A31 air bearing shaker.
MCS-31 Seconday calibration 100 g to 10 kg.
MCS-A010 Secondary calibration, 10 Hz to 10 kHz.
Expanded uncertainties using a coverage factor of k=2:

Laser Primary	
100 Hz	0.2%
Vs Primary Standard	
10 to 99 Hz	1.2%
101 to 920 Hz	1%
921 to 5000 Hz	1.4%
5000 to 10000 Hz	1.9%

f represents calibration frequency

NOTES
[1] Typical.
[2] Zero-based, least squares, straight line method.
[3] Supplied external DC power supply 488B04.
[4] With ≥ 1M ohm input impedance of readout device.

SUPPLIED ACCESSORIES
003C03 Sensor Cable (1)
012A03 Output Cable (1)
K9525-1428-MACC Mounting Kit (1)
MCS-A067 Primary Calibration 100 Hz (1)
MCS-31 Shock Calibration 100 g - 10 kg (1)
MCS-A010 Secondary calibration, 10 Hz to 10 kHz (1)

In the interest of constant product improvement, specifications may change without notice.

Project Engineer:	Product Manager:	Mkt Team Leader:	Spec Number:
	EJS		PS-0089
Date: 7/11/11	Date: 7/12/11	Date: 7/11/11	

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