



Model 3701D3FA20G

Product Type: Accelerometer, Vibration Sensor

Capacitive accel., 100 mV/g, +/- 20 g, 16-30 VDC excitation voltage, 4-pin conn. (replaces Model 370A02)

[View Spec Sheet \(PDF\)](#)

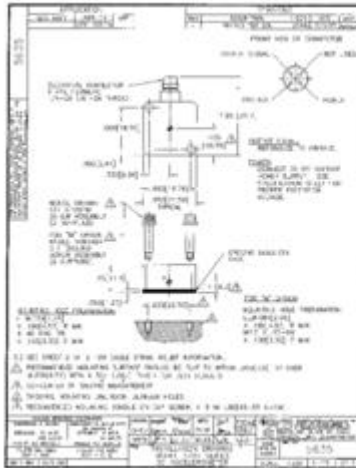
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PERFORMANCE	ENGLISH	SI
Sensitivity ($\pm 5\%$)	100 mV/g	10.2 mV/(m/s ²) [4]
Measurement Range	± 20 g pk	± 196 m/s ² pk
Frequency Range ($\pm 5\%$)	0 to 300 Hz	0 to 300 Hz
Frequency Range ($\pm 10\%$)	0 to 500 Hz	0 to 500 Hz
Resonant Frequency	>900 Hz	>900 Hz
Phase Response (100 Hz)	<10 °	<10 °
Damping Ratio	70 % Critical	70 % Critical [2]
Broadband Resolution (0.5 to 100 Hz)	80 μ g rms	800 μ m/s ² rms [2]
Non-Linearity	$\leq 1\%$	$\leq 1\%$ [5]
Transverse Sensitivity	$\leq 3\%$	$\leq 3\%$ [6]
ENVIRONMENTAL		
Overload Limit (Shock)	± 3000 g pk	$\pm 29,400$ m/s ² pk
Temperature Range (Operating)	-40 to +185 °F	-40 to +85 °C
Temperature Range (Storage)	-85 to +250 °F	-65 to +121 °C
Temperature Coefficient of Sensitivity	$\leq 0.05\%$ /°F	$\leq 0.09\%$ /°C [3]
Zero g Offset Temperature Coefficient	≤ 0.010 g/°F	≤ 0.184 m/s ² /°C [3]
Base Strain Sensitivity	0.0001 g/ μ ϵ	0.001 (m/s ²)/ μ ϵ [2]
Magnetic Sensitivity	65 equiv. μ g/gauss	6.38 (m/s ²)/Tesla [2]
ELECTRICAL		
Excitation Voltage	16 to 30 VDC	16 to 30 VDC
Current Consumption	≤ 10 mA	≤ 10 mA
Output Impedance	≤ 50 ohm	≤ 50 ohm
Offset Voltage (0 g)	± 40 mVDC	± 40 mVDC [1]
Spectral Noise (1 Hz)	35 μ g/ $\sqrt{\text{Hz}}$	340 (μ m/s ²)/ $\sqrt{\text{Hz}}$ [2]
Spectral Noise (10 Hz)	10 μ g/ $\sqrt{\text{Hz}}$	98 (μ m/s ²)/ $\sqrt{\text{Hz}}$ [2]
Spectral Noise (100 Hz)	5 μ g/ $\sqrt{\text{Hz}}$	49 (μ m/s ²)/ $\sqrt{\text{Hz}}$ [2]
Electrical Isolation (Base)	>10 ⁸ ohm	>10 ⁸ ohm
PHYSICAL		
Housing Material	Titanium	Titanium
Sealing	Hermetic	Hermetic
Size (Height x Length x Width)	0.45 in x 0.85 in x 0.85 in	11.4 mm x 21.6 mm x 21.6 mm
Weight	.62 oz	17.5 gm
Electrical Connector	4-Pin	4-Pin
Electrical Connection Position	Side	Side
Mounting	Through Hole	Through Hole
SUPPLIED ACCESSORIES:		
Model 080A152 Easy Mount Clip (1)		
Model 081A64 Mounting Screw (2)		
Model ACS-11 NIST traceable amplitude and phase response from 0.5 Hz to upper 5% frequency (1)		
Model M081A64 Mounting Screw (2)		
OPTIONAL VERSIONS		
HT - High temperature, extends normal operation temperatures		
Temperature Range (Operating)	-40 to +250 °F	-40 to +121 °C

All specifications are at room temperature unless otherwise specified.

NOTES:

- [1] Offset tolerance is based on 10 Ft of 010 test cable.
- [2] Typical.
- [3] Valid from 70°F to 185°F [21°C to 85°C]
- [4] Measured at 100 Hz, 1 grms.
- [5] Zero-based, least-squares, straight line method.
- [6] Transverse sensitivity is typically $\leq 1\%$
- [7] See PCB Declaration of Conformance PS027 for details.



[Download Drawing \(PDF\)](#)

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