

MODEL NUMBER 3420A1-45

PERFORMANCE SPECIFICATION

DOC NO.

PS3420A1-45

ACCELEROMETER, IEPE, SINGLE AXIS

REV A, ECN 16319, 08/31/21



- BASE ISOLATED
- THROUGH HOLE MOUNT FOR #2 SCREW
- INTEGRAL CABLE
- HERMETICALLY SEALED

		ENGLISH		SI	
PHYSICAL					
Weight, Less Cable, Max		0.18	oz	5.0	grams
Mounting Provision		Thru hole for #2 screw		Thru hole for #2 screw	
Connector		Integral Cable		Integral Cable	
Housing	Material	Titanium		Titanium	
	Isolation	Base Isolated		Base Isolated	
Cable Type	Coaxial	26AWG, FEP Jacket		26AWG, FEP Jacket	
PERFORMANCE					
Sensitivity, ±10% [2]		10	mV/g	1.02	mV/ m/s ²
Range F.S. For ± 5 Volts Output		±500	g pk	±4905	m/s ² pk
Frequency Response	± 5%	1 to 5,000	Hz	1 to 5,000	Hz.
	± 15%	0.66 to 10,000	Hz	0.66 to 10,000	Hz
Resonant Frequency		> 25	kHz	> 25	kHz
Linearity [3]		< 1	%F.S	< 1	%F.S
Transverse Sensitivity, Max.		5	%	5	%
Equivalent Electrical Noise Floor [5]		0.007	g RMS	0.07	m/s ² RMS
ENVIRONMENTAL					
Maximum Shock		2,000	±g pk	19,620	± m/s ² pk
Temperature Range (Operational)		-60 to +250	°F	-51 to +121	°C
Seal		Hermetic		Hermetic	
Base Strain Sensitivity		0.03	g/με	0.01	m/s 2 / $\mu\epsilon$
ELECTRICAL					
Supply Current [4]		2 to 20	mA	2 to 20	mA
Compliance Voltage Range		18 to 30	VDC	18 to 30	VDC
Output Impedance		< 100	Ω	< 100	Ω
Bias Voltage		7 to 12	VDC	7 to 12	VDC
Discharge Time Constant		0.5 to 2.0	sec	0.5 to 2.0	sec
Electrical Isolation, Min, Either Wire To Case		1	GΩ	1	GΩ
Output Signal Polarity		Positive		Positive	
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This family also includes:

Model	Sensitivity (mV/g)	Range (g pk)	Oper. Temp (°F)	Cable Length (FT)
3420A1	10	500	-60 to 250	20

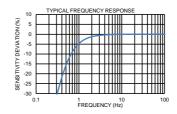
Refer to the performance specifications of the products in this family for detailed description.

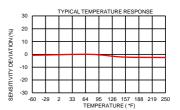
Supplied Accessories:

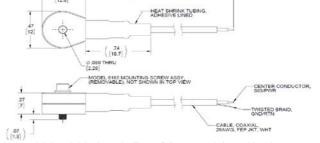
- 1) Mounting Screw, Model 6165, 2-56 UNC-2A x .375" long
- 2) Accredited Calibration Certificate (ISO 17025)

Notes:

- [1] All specifications are at room temperature unless otherwise specified.
- [2] Measured at 100 Hz, 1 g RMS per ISA RP 37.2.
- [3] Measured using zero-based best straight-line method, % of F.S. or any lesser calibrated range in optimal lab conditions.
- [4] Do not apply power to this device without current limiting, 20 mA MAX.
- To do so will destroy the integral IC amplifier.
- [5] Typical. Not to exceed .010 g RMS [.10 m/s RMS]
- [6] In the interest of constant product improvement, we reserve the right to change specifications without notice. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.







Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3420A1 for more information

