

Model Number DOC NO PERFORMANCE SPECIFICATIONS 3023A9 PS3023A9 TRIAXIAL IEPE ACCELEROMETER REV F, ECN 15645, 03/16/20



- STUD MOUNT
- EXCELLENT LINEARITY

• ULTRA LOW WEIGHT

		ENGLIS	ENGLISH		SI	
PHYSICAL			-			
Weight, Max.		0.14	oz	4.0	grams	
Connector		4-Pin		4-Pin		
Mounting Provision		10-32 Tapped Hole		10-32 Tapped Hole		
Material, Housing/Connector		Titanium Alloy		Titanium Alloy		
Sensing Element		Quartz		Quartz		
Element Style		Shear		Shear		
PERFORMANCE						
Sensitivity, ±10% [1]		1	mV/g	0.1	mV/m/s <sup>2</sup>	
Range for ± 5 Volts Output		±5000	g	±49033	m/s <sup>2</sup>	
Frequency Response, X & Y Axes:	±5%	1.5 to 4,000	Hz	1.5 to 4,000	Hz	
	±3dB	1.5 to 10,000	Hz	1.5 to 10,000	Hz	
Z-Axis:	±5%	1.5 to 4,000	Hz	1.5 to 4,000	Hz	
	-5/+15%	1.5 to 10,000	Hz	1.5 to 10,000	Hz	
Resonant Frequency		> 40	kHz	> 40	kHz	
Broad Band Resolution		0.07	Grms	0.687	m/s <sup>2</sup> rms	
Spectral Noise	1.25Hz	0.03	Grms/v(Hz)	0.29	m/s2 rms/v(Hz)	
	10Hz	0.01	Grms/v(Hz)	0.098	m/s <sup>2</sup> rms/v(Hz)	
	100Hz	0.002	Grms/v(Hz)	0.0196	m/s <sup>2</sup> rms/v(Hz)	
	1000Hz	0.0005	Grms/v(Hz)	0.0049	m/s2 rms/v(Hz)	
	10000Hz	0.0004	Grms/v(Hz)	0.0039	m/s2 rms/v(Hz)	
Linearity [2]		1	% F.S.	1	% F.S.	
Maximum Transverse Sensitivity		6	%	6	%	
Strain Sensitivity @ 250με		0.006	g/με	0.06	$m/s^2/\mu\epsilon$	
ENVIRONMENTAL						
Maximum Vibration		6000	Gpeak	58860	m/s <sup>2</sup> peak	
Maximum Shock		7000	Gpeak	68647	m/s² peak	
Temperature Range		-60 to +250	°F	-51 to +121	°C	
Seal		Hermetic		Hermetic		
Magnetic Sensitivity at 100 Gauss		0.00005	g/Gauss	4.905	m/s <sup>2</sup> /T	
ELECTRICAL						
Supply Current Range [3]		2 to 20	mA	2 to 20	mA	
Compliance Voltage Range		18 to 30	Volts	18 to 30	Volts	
Output Impedance,Typ		100	Ω	100	Ω	
1		7 to 11	VDC	7 to 11	VDC	
Bias Voltage						
Bias Voltage Discharge Time Constant		0.3 to 1.5	Sec	0.3 to 1.5	Sec	

This family also inc	ludes:			
Model	Sensitivity (mV/g)	Frequency Response (Hz)	Mounting	Operating Temp (°F)
3023A	10 (-10 to +15%)	See PS3023A	Adhesive	-60 to +250
3023A1	10 (-10 to +15%)	See PS3023A1	5-40 Tapped Hole	-60 to +250
3023A2	10 (-10 to +15%)	See PS3023A2	10-32 Tapped Hole	-60 to +250
3023A3	5 (-10 to +15%)	See PS3023A3	Adhesive	-60 to +250
3023A4	5 (-10 to +15%)	See PS3023A4	5-40 Tapped Hole	-60 to +250
3023A5	1 (±5%)	See PS3023A5	Adhesive	-60 to +250
3023A6	5 (-10 to +15%)	See PS3023A6	10-32 Tapped Hole	-60 to +250

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

## Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)

2) Model 6200 Mounting Stud, Quantity 1

## Notes:

- [1] Measured at 100Hz, 10 Grms per ISA RP 37.2.
- [2] Measure using zero-based straight line method, % of F.S. or any lesser range.
- [3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- [4] 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 overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.





