

Model Number 3099A5-XX	PERFORMANCE SPECIFICATION		
	SHOCK ACCELEROMETER, IEPE	REV B, ECN 16173, 05/03/21	



- MECHANICALLY & ELECTRICALLY FILTERED
- INTEGRAL CABLE W/ 10-32 CONNECTOR
- CASE ISOLATED

		LITOLIOIT		0.	
PHYSICAL					
Weight, Max.(Less Cable)		0.28	oz	8	grams
Mounting Provision		1/4-28 UNF-2A	1	1/4-28 UNF-2A	
Integral Cable		Twisted Pair, PTFE		Twisted Pair, PTFE	
Connector		Coaxial 10-32 Plug	1	Coaxial 10-32 Plug	
Material	Housing	Titanium	1	Titanium	
Element Style	Material	Quartz	<u> </u>	Quartz	
	Туре	Planar Shear	<u></u>	Planar Shear	
PERFORMANCE					
Sensitivity, ±20% [2]		0.05	mV/g	0.005	mV/m/s ²
Measurement Range		±60,000	g pk	±588,600	m/s² pk
Frequency Range, ±3dB		10 to 10,000	Hz	10 to 10,000	Hz
Resonant Frequency	Mechanical Filter	> 10.5	kHz	> 10.5	kHz
	Element	> 120	kHz	> 120	kHz
Linearity [3]		± 1	%	± 1	%
Broadband Resolution		1.0	g RMS	9.81	m/s ² RMS
Maximum Transverse Sensitivity		5	%	5	%
Strain Sensitivity		0.0005	g/με	0.0049	m/s²/με
ELECTRICAL					
Supply Current Range [4]		2 to 20	T mA	2 to 20	mA
Compliance Voltage Range		+18 to +30	VDC	+18 to +30	VDC
Output Impedance, Typ.		100	0	100	0
Output Bias Voltage		7.0 to 12.0	VDC	7.0 to 12.0	VDC
Discharge Time Constant		1.0 to 2.0	sec	1.0 to 2.0	sec
Warm up time (within 10% of Bias	;)	< 8	sec	< 8	sec
Electrical Filter	•	Two Pole	7	Two Pole	1
	Cutoff Frequency	7	kHz	7	kHz
Ground Isolation		>10	ΜΩ	>10	ΜΩ
ENVIRONMENTAL					
Maximum Shock		±120,000	g pk	±1,177,200	m/s ² pk
Temperature Range, Sensor		-10 to +250	°F	-12 to +121	°C
Temperature Range, Integral Cab	le	-76 to +392	°F	-60 to +200	°C
1			T		7

0.03

Hermetic

%F

0.05

Hermetic

This family also includes:										
Model	Sensitivity (mV/g)	Measurement Range (g pk)	Maximum Shock (g pk)	Temperature (°F)						
3099A6-XX	0.1	±50,000	±100,000	-10 to +250						
3099A7-XX	0.2	±25,000	±50,000	-10 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 6109 Cable Joiner, 10-32 Jack / 10-32 Jack

Notes:

- [1] All specifications are at room temperature unless otherwise specified.
- [2] Measured at 100Hz, 10 g RMS per ISA RP 37.2
- [3] Measured using zero-based straight line method, % of F.S. or any lesser range.
- [4] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC amplifier
- [5] 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.

NORMALIZED SENSITIVITY 1

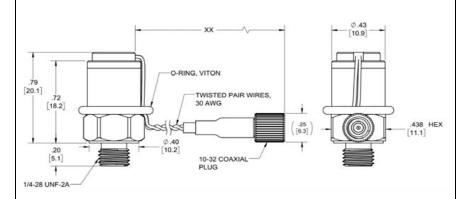
1000

FREQUENCY (Hz)

10000

100000

TYPICAL FREQUENCY RESPONSE



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3099A5-XX for more information.



Coefficient of Thermal Sens.

Seal

%C