

Aviation Recorders

MULTI-AXIAL ACCELEROMETER

The L-3 Multi-Axial Accelerometer is designed for use in commercial and military aircraft operating flight recording systems. The hermetically sealed instrument houses single-, dual- or tri-axial sensors for measuring vertical, longitudinal and lateral acceleration. The accelerometer meets the mandatory requirements of the FAA and other regulatory authorities. Compliant to ARINC 542A/573/717/747 and certified to TS0 C124b.



KEY FEATURES

- Single-, dual- or tri-axial configurations
- ARINC 542A/573/717/747 compliant
- Certified to TS0 C124b
- Hermetically sealed for harsh operational environments
- MTBF >50,000 hours
- Lightweight
 - 542: 12 oz (340 gm)
 - 717: 8 oz (227 gm)
- Custom configurations
- Direct replacement for other ARINC compliant accelerometers



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PHYSICAL DIMENSIONS

Dimensions: Per ARINC 542A/573/717/747
Weight: 542: 12 oz (340 gm)
717: 8 oz (227 gm)
Hermetically Sealed
Connector: MS3113 H12C10P for ARINC 717
and ARINC 542A, MS3113 H12C8P
for single- and dual-axis

ELECTRICAL CHARACTERISTICS

Range:	AXIS	RANGE	OUTPUT
	Up	+6 g	5000 mV
	Down	-3 g	200 mV
	Forward	+1 g	5000 mV
	Aft	-1 g	200 mV
	Right	+1 g	5000 mV
	Left	-1 g	200 mV

Axial Null: Vertical: 1800 mV
Longitudinal: 2600 mV
Lateral: 2600 mV

Excitation: 18 to 32V DC (28V DC nominal)

Output: 5.0V DC max

Accuracy: 0.75% FS0

Resolution: 0.01% FS0

Supply Current: <30 mA 32V DC excitation
(75 is max allowed by 717)

ENVIRONMENTAL

Temp Operating Range: -65° to 160°F (-55° to 70°C)

Compensated Range: -65° to 160°F (-55° to 70°C)

Thermal Effect on Zero: ±0.01% FS0/°F

Thermal Effect on Sensitivity: ±0.01% FS0/°F

Vibration: 5 to 2000 Hz, 4.12 g random
DO-160E Cat. S Curve C
DO-160E Cat. H Curve R
DO-160E Cat. S Curve L

Shock: Peak acceleration of 6 g min
for duration of 11 milliseconds at
half-sine wave (DO-160E Cat. A)

Insulation Resistance: 100 Mohms min at 50V DC



ARINC 542



ARINC 717

L-3 accelerometers are directly interchangeable with all ARINC compliant tri-axis accelerometers and are certified to the latest TSO C124b

CERTIFICATION

FAA TSO-C124b

REGULATORY SPECIFICATIONS

ARINC 524A/573/717/747

L-3 Aviation Recorders Quality Management System is ISO 9001:2000 and AS9100:2004 Rev. B Certified

Aviation Recorders

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communications

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L-3. Headquartered in New York City, L-3 Communications is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.

This technical data and software is considered as Technology Software Publicly Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11.

Data contained within this document are summary in nature and subject to change any time at L-3's discretion. Call for latest revision.

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