

New Accelerometer for ATD Applications

- ★ Low Noise & Drift
- ★ High Level Output

A64C

Piezo-resistive Accelerometer for ATD, Headform, Legform and Vehicle Crash Testing

APPLICATIONS

- Automotive safety
- In-dummy/ATDs
- Injury biomechanics
- PMHS (cadaveric) testing
- Impact testing
- Injury investigation
- Pedestrian head & legforms
- Parachute deployment
- Package testing: truck, air, ship & rail
- Embedded monitoring
- Helicopter & aircraft
- Blast testing
- Ride & handling
- Sports & safety equipment
- Vibration testing
- Aerospace analysis
- Amusement ride testing

PRODUCTS

Diversified Technical Systems designs and manufactures data acquisition systems and sensors for experienced test professionals.



The miniature A64C measures acceleration up to ± 500 g and is designed for applications with tight space constraints. The A64C is a new MEMS sensor design with lower noise and better performance than competing accelerometers.

Key Features

- Industry standard package for installation in ATDs, headforms and legforms
- Low noise, high output: 3.75 mV/g (nominal)
- 4.9 to 14 V excitation, not proportional
- Shunt check compatible
- Temperature compensated
- Complies with SAE J211/J2570, ISO 6487, NHTSA and Euro NCAP recommended practices
- NIST traceable, ISO 17025 accredited re-calibration services available

The A64C is the newest sensor from DTS featuring a linear accelerometer in a rugged, industry standard enclosure. The A64C supports a wide range of excitation voltages and delivers high level outputs with low noise and drift. The A64C fits existing ATD mounting blocks and is ideal for a variety of testing environments including injury biomechanics, transit vibration testing, vehicle NVH and multi-axis vibration testing.



The A64C is ideal for acceleration measurements in all Global NCAP and NHTSA ATDs, Headforms, Flex and aPLI Legforms, and many other applications.



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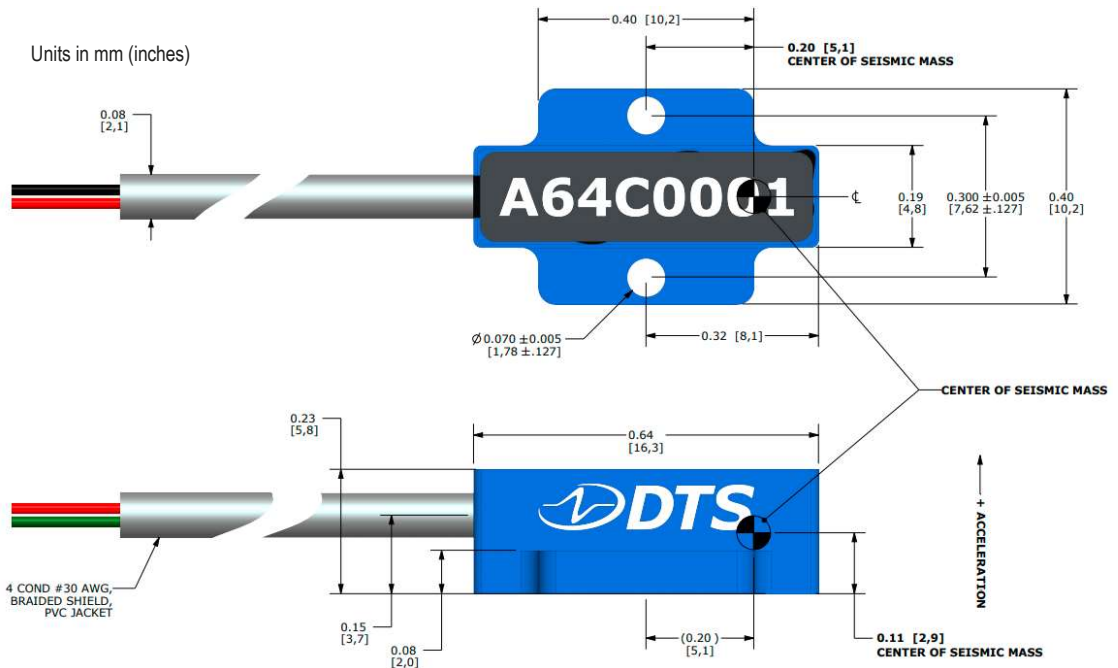
Specifications

| PHYSICAL | |
|-------------------------|--|
| Size: | See drawing below |
| Mass: | 1.5 g (without cable) |
| Enclosure: | Anodized aluminum |
| Mounting Holes: | Thru-holes for two 0-80 bolts |
| Mounting Torque: | 0.11 Nm (1.0 in-lbf) recommended |
| RESPONSE & ELECTRICAL | |
| Range: | ±500 g |
| Bandwidth: | 0-5000 Hz, DC response |
| Linearity - % FS: | < 1% |
| Transverse Sensitivity: | ±3% (typ), ≤ ±1% (option) |
| Damping Ratio: | 0.7 nominal |
| Noise Density: | 125 µg/√Hz |
| Nominal Sensitivity: | 3.75 mV/g |
| Zero Output: | ±3% FS (max) |
| Thermal Zero Shift: | ±0.01% FS/°C (-40 to +85°C) |
| Thermal Sens. Shift: | ±0.1 %/°C typ (-40 to +85°C) |
| Shunt Check: | 3000 Ω equivalent bridge resistance |
| Excitation Voltage: | 4.9-14 V, not proportional to excitation |
| Current: | 2 mA nominal |

| ENVIRONMENTAL | |
|------------------------------------|--|
| Operating Temp.: | -40 to +85°C (-40 to +185°F) |
| Humidity: | 99%, non-condensing |
| Shock: | 10000 g, any direction |
| IP Rating: | IP67 |
| CABLE & CONNECTORS | |
| Cable Type: | Four conductor with overall shield, 30 AWG Element and shield isolated from enclosure |
| Length: | 25 ft (7.6 m) standard |
| Termination: | Pigtail termination standard |
| Color Code: | Black: -Excitation Red: +Excitation Green: +Signal White: -Signal |
| Connectors: | SLICE6 Sensor Interface, LEMO, Omnetics, Tajimi, or others per request. Delivered with Sensor ID installed in connector. |
| CALIBRATION – ISO 17025 ACCREDITED | |
| Acceleration: | NIST-traceable shock, half-sine |
| Calibration: | Re-calibration services available |

SERVICES

24/7 Worldwide Tech Support
ISO 17025 (A2LA) Calibration
On-site Calibration & Training
Application Support
Software Integration
OEM/Embedded Applications



WORLDWIDE SUPPORT

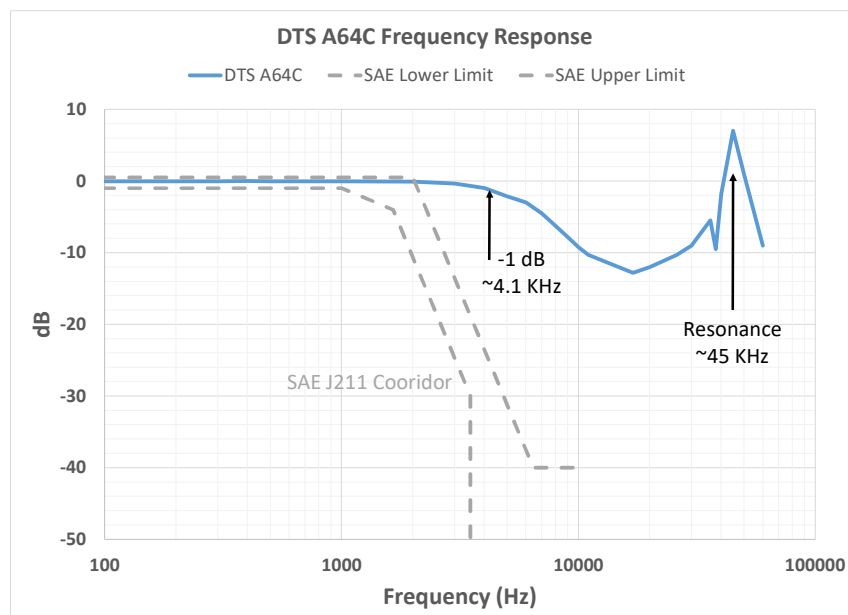
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HEADQUARTERS

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The A64C mounts on standard triaxial accelerometer mounting blocks and locations. Also works with all SLICE6 in-dummy DAS solutions!

DTS
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Specifications subject to change without notice.
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