PRODUCT DATASHEET

APPLICATIONS

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

ARS3 PRO High Performance, Triaxial Angular Rate Sensor



Low mass and lightweight, the 3-axis ARS3 PRO is the highest shock and vibration tolerant angular rate sensor available for dynamic testing.

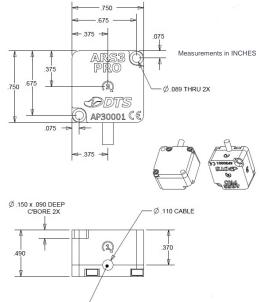
Package size: 0.75 x 0.75 x 0.49" (19 x 19 x 12.5 mm)

Features

- Ultra-small, low mass 3-axis package
- · Reliable; accurate in high shock and vibration environments
- Standard range options: ±300, 1500, 8K, 18K, 50K deg/sec Variety of bandwidth options, DC response
- 4.9–14.0 VDC excitation
- Shunt check 3000 Ω equivalent bridge resistance
- Dallas ID standard, user-specified connector options
- IP67 rated for dust protection and immersion in water. The sealed enclosure is also ideal for PMHS work.
- Factory repair of channels available
- ISO 17025 (A2LA Accredited) calibration services available, NIST traceable

The ARS3 PRO is an ultra-small, triaxial gyroscope designed to accurately measure high rates of angular velocity even in excessive shock and vibration environments. Packaged in a rugged aluminum enclosure, the ARS3 PRO is the smallest, high-rate angular rate sensor available with 3 separate sensing elements oriented in the X, Y and Z planes for full pitch, roll and yaw measurements.

Unparalleled performance and reliability make the ARS3 PRO the sensor of choice worldwide for automotive safety crash testing, aerospace, in-dummy instrumentation, biomechanics and blast testing.



ARS SENSOR CABLE

Need a single-axis? Check out the ARS PRO & ARS HG. Looking for 6 degrees of freedom? The DTS 6DX PRO packages 3 angular rate sensors and 3 accelerometers in a 19 x 19 x 14.5 mm rugged enclosure that weighs only 12 g.



PRODUCTS

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

Specifications

PERFORMANCE Cross Axis Sensitivity: <1.0% Linearity: <0.5% full scale Influence of Linear -SIGNAL Acceleration: <0.1 deg/sec/g typical Drift: 0.1 deg/sec/g typical Drift: 0.1 deg/sec/sec CALIBRATION BLOCK (2) Calibration Supplied: NIST traceable ISO 17025: ISO 17025 (A2LA Accredited) available Service Options: Factory or On-Site, Service Contracts available OPTIONAL ACCESSORIES 4 trioxial cable assembly with a variable of SIGNAL	
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314.2 rad/sec over rated bandwidth Biomechanics tests requiring high rat measurements SAE_J211/ISO 6487 CFC 1000 Meas MODEL RANGE BANDWIDTH* NOISE APPLICATION NOTES ARS3 PR0-50K ±50000 deg/sec range 872.7 rad/sec 0-2000 Hz <0.15% of full scale over rated bandwidth •Extreme environments, heavy-duty m CFC = Channel Frequency Class •Extreme environments, heavy-duty m •SAE_J211/ISO 6487 CFC 1000 Meas CFC = Channel Frequency Class •Extreme environments, heavy-duty m •SAE_J211/ISO 6487 CFC 1000 Meas CFC = Channel Frequency Class •Extreme environments, heavy-duty m •SAE_J211/ISO 6487 CFC 1000 Meas CFC = Channel Frequency Class •Extreme environments, heavy-duty m •SAE_J211/ISO 6487 CFC 1000 Meas CFC = Channel Frequency Class •Standard: one triax 16-pin Omnel with Dallas ID (23 ft). Optional: Adapter cable with pigt connectors of choice (2 ft). Operating Temp: 40 + 85°C (-40 to +185°F) Acceleration: 1000 g. 0.5 ms (survival only) WIRE COLOR & PIN ASSIGNMEN PR Rating: IP67, short-term immersion OK •SAE J211/ISO 0487 CFC 1000 Meas •SAE J211/ISO 0407 C Cutput full scale Output: ±200 mV ±200 mV •SAE J210 m •SAE J210 m PEFFORMANCE Full Scale Output: ±200 mV •SAE J210 m •SAE J210 m PERFORMANCE CALIBRATION 0.1 deg/sec/sec •SIGNAL <td></td>	
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