ARS
High Performance Angular Rate Sensor

Small and lightweight, the single axis ARS is only 7.6 x 10.2 x 14.0 mm. The optional DTS mounting block easily creates a triax package.

Features

- Ultra small and lightweight single axis package
- Standard range options: 300, 1500, 8000 and 12000 deg/sec
  Special order options: up to 50k deg/sec
- Standard frequency response options: 0 to 1650 Hz (DC response)
- High shock resistance: 2000 g
- Flexible mounting options available for triax and six degree of freedom packages
- Optional Dallas ID and/or user-specified connector
- Re-calibration services available, NIST traceable
- Rated for IP67—dust protection and immersion in water

The ARS angular rate sensor (gyro) is another intelligent design from DTS. These incredibly small and lightweight sensors are available in multiple range and bandwidth options—making the ARS ideal for a variety of testing requirements. The ARS come in standard range options up to 12000 deg/sec and 1650 Hz bandwidth with true DC response. Special order options with ranges up to 50k deg/sec are also available.

High shock rating and flexible packaging options make the ARS the sensor of choice for automotive, aerospace and industrial testing applications worldwide.

A six degree of freedom package can also be created by mounting three Endevco 7264 or MSI 64 accelerometers on the triax block.
### Specifications

<table>
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<tr>
<th>MODEL</th>
<th>RANGE*</th>
<th>BANDWIDTH**</th>
<th>NOISE</th>
<th>APPLICATIONS</th>
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<tr>
<td>ARS-300</td>
<td>±300 deg/sec range 5.2 rad/sec</td>
<td>0-100 Hz, DC Response</td>
<td>&lt;0.15% RMS full scale</td>
<td>Ideal for non-impact testing such as vehicle handling &amp; braking</td>
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<tr>
<td>ARS-1500</td>
<td>±1500 deg/sec range 26.2 rad/sec</td>
<td>0-1000 Hz, DC Response</td>
<td>&lt;0.15% RMS full scale</td>
<td>Meets requirements for FMVSS 202a—rear impact test standard</td>
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<tr>
<td>ARS-8K</td>
<td>±9000 deg/sec range 139.6 rad/sec</td>
<td>0-300 Hz, DC Response 0-600 Hz option available</td>
<td>&lt;0.15% RMS full scale</td>
<td>Ideal for vehicle body measurements in impact &amp; rollover testing</td>
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<tr>
<td>ARS-12K</td>
<td>±12000 deg/sec range 209.4 rad/sec</td>
<td>0-1650 Hz, DC Response</td>
<td>&lt;0.25% RMS full scale</td>
<td>Designed for high rate dummy impact &amp; vehicle component testing</td>
</tr>
</tbody>
</table>

* Optional ranges up to 50K deg/sec available. Additional lead time. **Indicates flat response in this frequency range. Other bandwidths available. Additional lead time.

#### PHYSICAL
- Size: 7.6 x 10.2 x 14.7 mm (0.3 x 0.4 x 0.58")
- Weight: <3 g (<0.105 oz)
- Enclosure: Anodized aluminum
- Triax Block Weight: 9.8 g (346 oz)

#### ENVIRONMENTAL
- Operating Temp.: -40 to +85°C (-40 to +185°F)
- Humidity: 99%, non-condensing
- Shock: 2000 g, any direction

#### CABLE
- Type: Four conductor, 30 AWG
- Overall shield isolated from enclosure
- Length: 25 ft (8.3 m) standard
- Termination: Pigtail termination standard

#### ELECTRICAL
- Excitation: 4.95-14.00 VDC
- Output not proportional to excitation
- Current: 6 mA nominal
- Zero Output: ±200 mV
- Full Scale Output: ±2 V nominal

#### PERFORMANCE
- Cross Axis Sensitivity: <1.0%
- Linearity: <0.5% full scale
- Influence of Linear Acceleration: 0.2 deg/sec/g
- Drift: 0.1 deg/sec/sec

#### CONNECTORS
- Type: LEMO typical, options available on request
- Dallas ID: Installed in connector
- Options: C: Add connector, CID: Add connector and Dallas ID

#### OFFICES
- Seal Beach, California USA
- Novi, Michigan USA
- Sydney, Australia
- Shanghai, China
- Zorge, Germany
- Tokyo, Japan

**Authorized DTS Representative:**

DC response is a key feature that has made the ARS a favorite for test professionals around the world.

Specifications subject to change without notice.