

DTS ARS

The Next Generation in Angular Rate Sensors

The DTS ARS is the latest in intelligent design from DTS. With ranges as high as 12000 deg/sec, these incredibly small and lightweight sensors have a remarkable DC to 1650 Hz bandwidth. Suitable for many automotive, aerospace and industrial testing applications, the DTS ARS is used inside crash dummies, for missile and guided munitions testing, vehicle handling and rollover, and many other demanding test needs.

APPLICATIONS

- Automotive Safety Test
- Industrial Machine Test and Monitor

- Component Testing
- Biodynamic Research



Single axis **DTS ARS** 7.6 x 10.2 x 14.0 mm <3.0 grams



DTS ARS triax package with DTS mounting block.



A six-axis package is easily obtained by taking the **DTS ARS** triax package and mounting three Endevco 7264 or MSI 64 accelerometers.

SPECIFICATIONS	ADDITIONAL INFORMATION	
±300 deg/sec range 0 to 100 Hz Response	Ships standard with pigtail termination.Options*:	
±1500 deg/sec range 0 to 1000 Hz Response	-c: add connector -cid: add connector and dallas id	
±8000 deg/sec range 0 to 300 Hz Response	 Optional Ranges*: 300 to 50000 deg/sec Optional Bandwidth*: 40 to 10000 Hz * additional lead time required 	
±12000 deg/sec range 0 to 2000 Hz Response		
- ·	±300 deg/sec range 0 to 100 Hz Response ±1500 deg/sec range 0 to 1000 Hz Response ±8000 deg/sec range 0 to 300 Hz Response ±12000 deg/sec range	



DTS ARS SPECIFICATIONS

Range and Frequency Response:

Range*	Bandwidth**	Noise
deg/sec (rad/sec)	(Hz)	(RMS full scale)
300 (5.2)	DC to 100	<0.15%
1500 (26.2)	DC to 1000	<0.15%
8000 (139.6)	DC to 300	<0.15%
12000 (209.4)	DC to 1650	<0.25%

Electrical:

Excitation: 4.95 to 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

Physical:

Enclosure: Anodized aluminum

Size: 0.3 x 0.4 x 0.58 inches 7.6 x 10.2 x 14.7 mm

Mass: <3 grams

Shock: 2000 g, any direction

Cable:

- Four conductor, 28 AWG
- Overall shield isolated from enclosure
- Standard 25 ft (8.3 m)
- Color code

Black: -excitationRed: +excitationGreen: +signalWhite: -signal

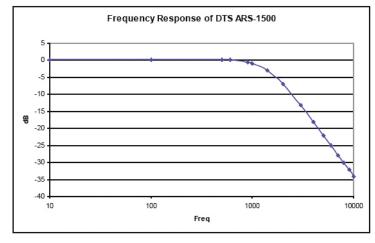
Temperature Range: -40 to +85°C

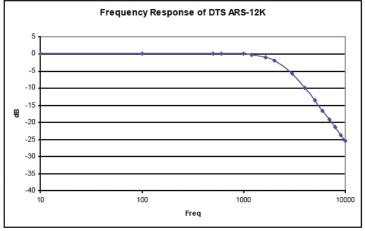
Humidity: 99%, non-condensing

Connector: LEMO or other installed per request

Dallas ID: Installed in connector

Specifications may be revised without notice.





^{*} Optional ranges up to 50000 deg/sec

^{**} Indicates flat response in this frequency range. The 1500 deg/sec **DTS ARS** meets SAE Class 600 performance requirements. The 12000 deg/sec **ARS** meets SAE Class 1000. All **DTS ARS** sensors have DC response. Nominal frequency response for 1500 and 12000 deg/sec units are show below.