

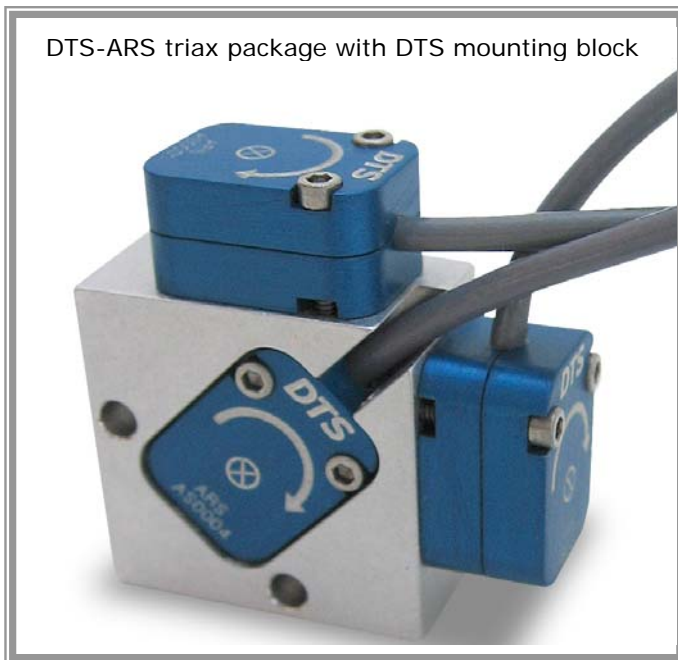


DTS-ARS – The Next Generation in Angular Rate Sensors

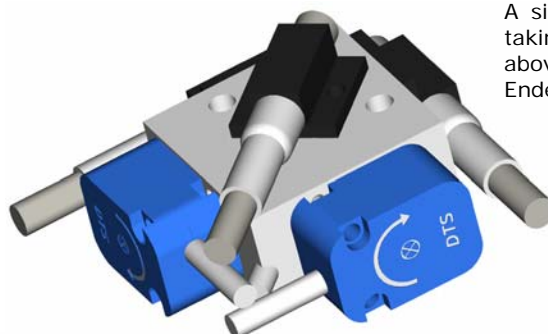
The DTS-ARS is the latest in intelligent design from DTS. With ranges as high as 12,000 deg/sec, these incredibly small and lightweight sensors have a remarkable DC to 2,000 Hz bandwidth. Suitable for many automotive, aerospace and industrial testing applications, the DTS-ARS can also be used inside crash test dummies for precise measurements of head rotation, thorax rotation and other biodynamic measurements. Re-calibration services are available.

Applications

- FMVSS 202a and rollover crash testing
- Side curtain deployment development
- Component testing
- Biodynamic research testing



Part Number	Specifications	Additional Information
ARS-300	±300 deg/sec range SAE Class 60 response	Ships standard with pigtail termination. Options*: -C: add connector -CID: add connector and Dallas ID Optional ranges*: 300 to 50,000 deg/sec Optional bandwidth*: 40 to 10,000 Hz * additional lead time required
ARS-1500	±1500 deg/sec range SAE Class 600 response	
ARS-12K	±12000 deg/sec range SAE Class 1000 response	



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

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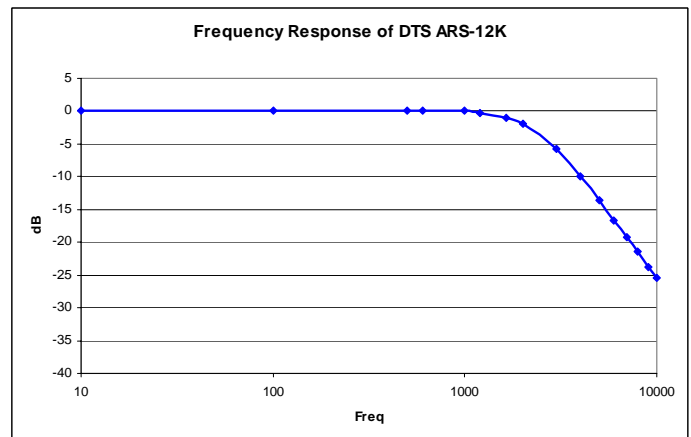
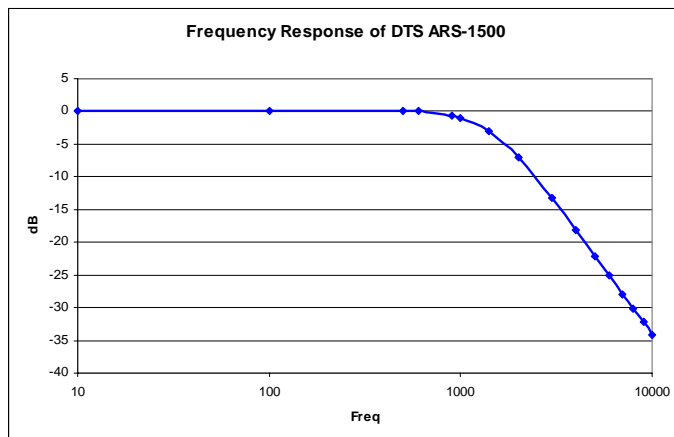
DTS-ARS SPECIFICATIONS

RANGE and FREQUENCY RESPONSE		
Range deg/sec (rad/sec)	Bandwidth* (Hz)	Noise (rms full scale)
300 (5.2)	DC to 100	<0.15%
1500 (26.2)	DC to 1000	<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	<ul style="list-style-type: none"> • four conductor, 28 AWG • Overall shield isolated from enclosure • Standard 25 ft (8.3 m) • Color code <ul style="list-style-type: none"> ○ Black: -Excitation ○ Red: +Excitation ○ Green: +Signal ○ White: -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.

* Indicates flat response in this frequency range. The 1500 deg/sec 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.



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