



TECH NOTES FROM DTS THE LEADER IN DYNAMIC  
DATA ACQUISITION SYSTEMS & SMART SENSORS

# DataPoint

JULY-AUG 2013

## DTS LEGACY OF SUPPORT

DTS is proud to remind customers that no matter what DTS product you own or when you purchased it, we will continue to support and calibrate ALL LEGACY products including the original TDAS 1 and MDAS.

Be confident you can always count on DTS around the world and around the clock for first class service and support.



## PRODUCTS

Diversified Technical Systems designs and manufactures data acquisition systems & sensors for the experienced testing professional.  
[www.dtsweb.com](http://www.dtsweb.com)

## SERVICES

24/7 Tech Support  
ISO 17025 (A2LA)  
Calibration & Repair  
Application Support  
Software Integration  
OEM/Embedded

## DTS ARS Goes PRO

### Now Even Higher Shock Tolerance!

Check out the full line of DTS high-performance angular rate sensors

Designed for high rate angular velocity, the new ARS PRO is packaged in the same ultra-small, rugged enclosures, but now each model has even higher shock and vibration tolerance.

**1. How does the DTS ARS PRO actually work?** ARS PRO is a silicon-based microelectromechanical system (MEMS) that uses a resonating gyro to discern angular rates by measuring deflections in the sensing element that occur when rotational forces are applied. ARS PRO key advantages include DC response, low power requirements, compact form factor and high reliability.

**2. Which range is best for my application?** All models are linear over the rated range and comply with SAE and ISO recommended practices for frequency response in all applications. DTS offers full-scale ranges from  $\pm 300$  to  $\pm 50000$  deg/sec and bandwidths up to 2000 Hz, fully supporting CFC 180, 600 and 1000 testing requirements. For the highest fidelity data, it's critical to pick the sensor range that is closest to the expected test range. Contact DTS if you are unsure which model to use for your application.

**3. My application has low angular rates. Why would I need a high shock ARS?**

Even applications considered low range often have superimposed high shock and vibration. A good example is pitch, roll and yaw rate measurements in vehicle crash or roll-over tests which may see error readings when the vehicle body hits the ramp or ground and the sensor becomes saturated, making the ARS PRO series ideal for use in these situations.

**4. I already use DTS ARS. Are they compatible with the new PRO units?**  
All ARS models are 100% compatible.



*The ARS PRO and ARS HG high performance angular rate sensors offer the highest shock and vibration tolerance available.*

## TSR PRO - More than just a NASCAR Black Box



Every NASCAR vehicle is required to have an incident data recorder on board. The model of choice for all three series: the DTS TSR, a rugged data logger with internal triax



Customized Training

accels.

## TECH CENTERS

Seal Beach, California USA  
Novi, Michigan USA  
Sydney, Australia  
Zorge, Germany  
Tokyo, Japan

### Other **TSR PRO** applications:

- Track and monitor high value aircraft components as they move across country to assembly facility
- Drop testing pressurized containers
- Measure shock & vibration on high speed military boats
- Monitor large generators for 3 months as they are transported cross-continent via ship, rail and truck
- Measure blast events related to mining exploration



## DTS Receives Supplier Award From Toyota

DTS North American Business Manager Steve Moss (2nd from right) accepts a Superior Performance Award from Toyota/TEMA executives for exceptional Technical Services and Quality.

## DTS In Action

### Automotive Testing Expo - Sept 10-12, Shanghai, China

See the latest DTS DAS and sensors for automotive safety applications. Visit stand #5016 Shanghai EON Technologies Co., Ltd.

### IRCOBI - Sept 11-13, Gothenburg, Sweden

Visit DTS at the International Research Council on Biomechanics of Injury (IRCOBI) which focuses on impact biomechanics research with the ultimate goal of designing safer environments for society including better vehicle design, more protective equipment and safer sporting environments.



Nearly 50 people attended the day long DTS & Humanetics User Conference in Korea that was coordinated by JAT (JooWon Auto Technical).



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