DTS 6DX PRO

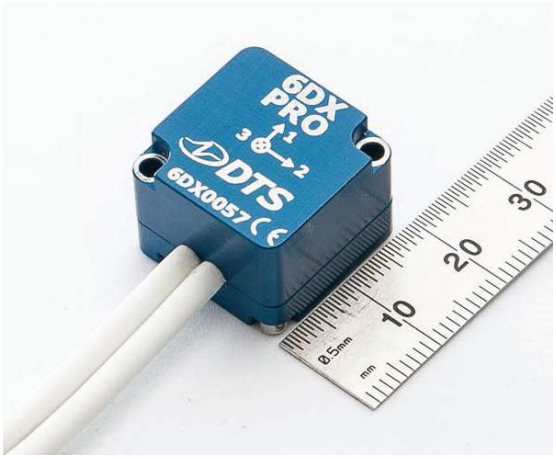
World's Smallest, Rugged 6 Degrees-of-Freedom Sensor Package

APPLICATIONS

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

PRODUCTS

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

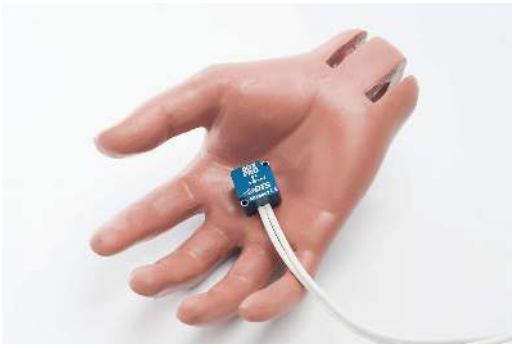


Designed for applications measuring high rates of acceleration and angular velocity, the DTS 6DX PRO packages three accelerometers and three angular rate sensors in a compact 19 x 19 x 14.5 mm package.

The DTS 6DX PRO features three linear accelerometers and three angular rate sensors conveniently packaged in a compact, high-shock enclosure.

Designed to meet the rigorous demands of dynamic test environments, the DTS 6DX PRO offers several range options. The 6DX PRO is ideal for in-manikin, PMHS, structural and blast testing applications.

Each sensor cable is 7 meters (23 feet) long and terminates to a single triaxial connector. Pigtail or adapter cables are available to support a variety of termination options.



Features

- Incredibly compact and lightweight
- Ideal for high acceleration and high angular rate measurements
- Available in several range options:

6DX PRO	ACCELEROMETER RANGES	ANGULAR RATE RANGES
2K-300	±2000 g, triax	±300 deg/sec, triax
2K-1500	±2000 g, triax	±1500 deg/sec, triax
2K-8K	±2000 g, triax	±8000 deg/sec, triax
2K-18K	±2000 g, triax	±18000 deg/sec, triax
20K-50K	±20000 g, triax	±50000 deg/sec, triax

- IP67 Rated: dust protection and water immersion
  The sealed enclosure is also ideal for PMHS work
- Factory repair of sensor channels available
- DTS re-calibration services available, NIST traceable
- Complies with NHTSA, FAA, ISO 6487 and SAE J211 recommended practices

DTS

www.dtsweb.com

Specifications

PHYSICAL

Size:	19 x 19 x 14.5 mm (0.75 x 0.75 x 0.57")
Mass:	12 g (0.42 oz.) without cables
Enclosure:	Anodized aluminum
Mounting Holes:	Thru-holes for two 2-56 or M2 bolts

ENVIRONMENTAL

Operating Temp.:	-40 to +85°C (-40 to +185°F)
Humidity:	99%, non-condensing, sealed
Shock:	2K-models: 10000 g, any direction 20K-50K: 20000 g, any direction
IP Rating:	IP67

SENSORS: ACCELEROMETER

Range Options:	Triaxial, ±2000 or 20000 g
Bandwidth:	0-10000 Hz, DC response
Excitation Voltage:	2-5 V
Linearity:	<1% (typical)
Transverse Sensitivity:	±3% (max)
Current:	< 3 mA per axis
Packaging:	All axes intersect at one point
Sensor Type:	Full bridge piezo-resistive design
Nominal Sensitivity:	2000 g: 0.02 mV/V/g 20000 g: 0.001 mV/V/g

CONNECTORS

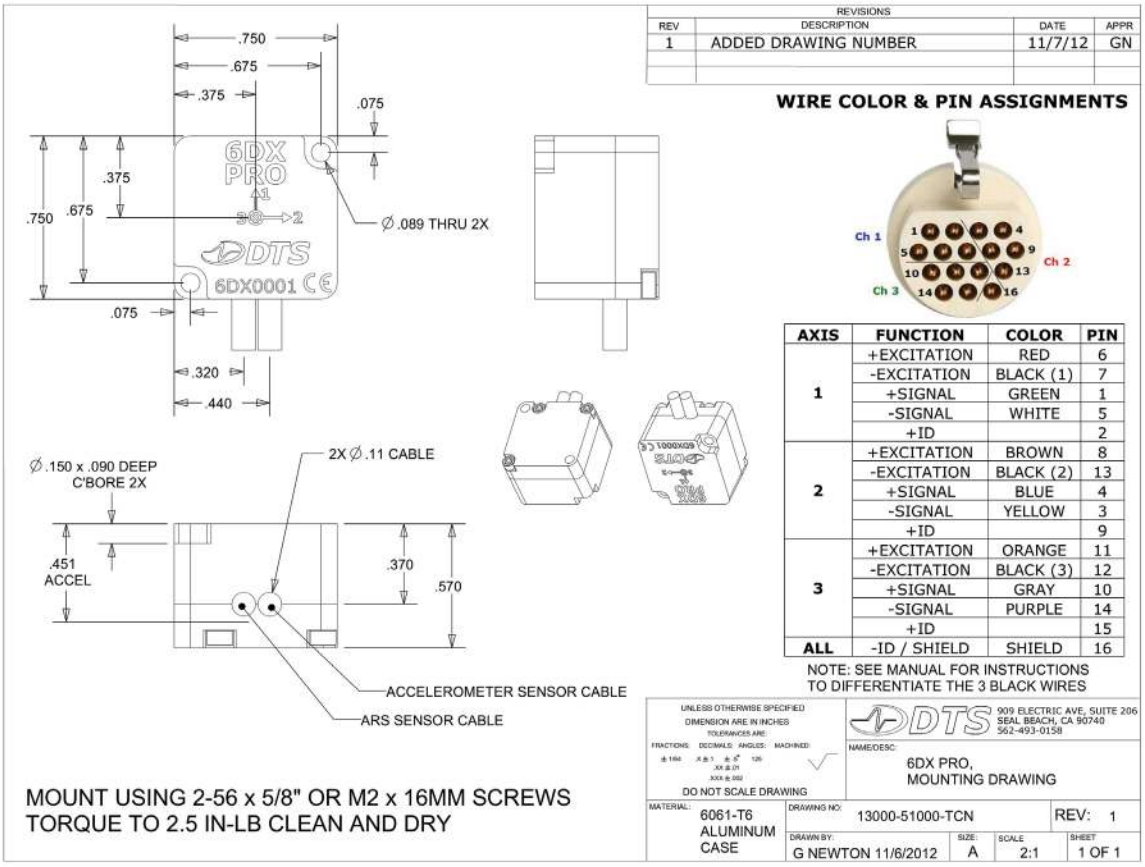
Type:	Standard: two triax 16-pin Omnetics connectors with Dallas ID (23 ft). Optional: Adapter cable with pigtails or connectors of choice (2 ft).

CALIBRATION

Acceleration:	NIST traceable shock, half-sine
Angular Rate:	NIST traceable rate table with stepper motor and encoder
Calibration:	Re-calibration services available

SENSORS: ANGULAR RATE

Range Options:	Triaxial, ±300, 1500, 8K, 18K or 50K deg/sec
Bandwidth:	0-2000 Hz, DC response
Excitation Voltage:	4.9-14 V, not proportional to excitation
Linearity:	<1%
Transverse Sensitivity:	±5% (max)
Current:	6 mA nominal per axis
Full Scale Output:	±2 V nominal
Zero Output:	±200 mV



SERVICES

24/7 Worldwide Tech Support
ISO 17025 (A2LA) Calibration
Onsite Calibration & Training
Application Support
Software Integration
OEM/Embedded Applications

TECH CENTERS

Novi, Michigan USA
Tokyo, Japan
Sydney, Australia
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