

APPLICATIONS

- Aerospace analysis
- Amusement ride testing
- Automotive safety
- Biomechanics
- Blast testing
- 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

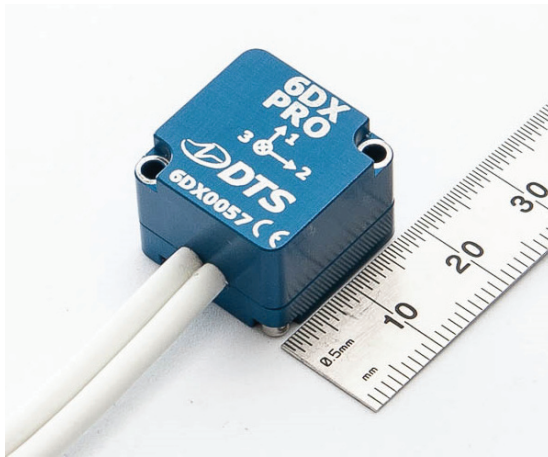
PRODUCTS

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

DTS 6DX PRO

6 Degrees of Freedom Sensor Package

Ultra-small 19 x 19 x 14.5 mm



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

Features

- Incredibly compact and lightweight
- Ideal for high impact testing
- IP67 Rated: dust protection and water immersion
The sealed enclosure is also ideal for cadaveric work
- Available in two range options:
 - 6DX PRO 2K-18K
 - 3 accelerometers: ± 2000 g
 - 3 angular rate sensors: ± 18000 deg/sec
 - 6DX PRO 20K-50K
 - 3 accelerometers: ± 20000 g
 - 3 angular rate sensors: ± 50000 deg/sec
- Factory repair of sensor channels available
- DTS re-calibration services available, NIST traceable
- Meets NHTSA, FAA, ISO 6487 and SAE J211 practices

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 two range options. The 6DX PRO is ideal for in-manikin, cadaver and blast testing.



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



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
Sydney, Australia
Zorge, Germany
Tokyo, Japan

HEADQUARTERS

Seal Beach, California USA

CONTACT US

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Email: sales@dtsweb.com

Specifications

PHYSICAL

Size: 19 x 19 x 14.5 mm (0.75 x 0.75 x 0.57")
Weight: 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-18K: 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: 2-10 V
Linearity: <1% (typical)
Transverse Sensitivity: $\pm 3\%$ (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

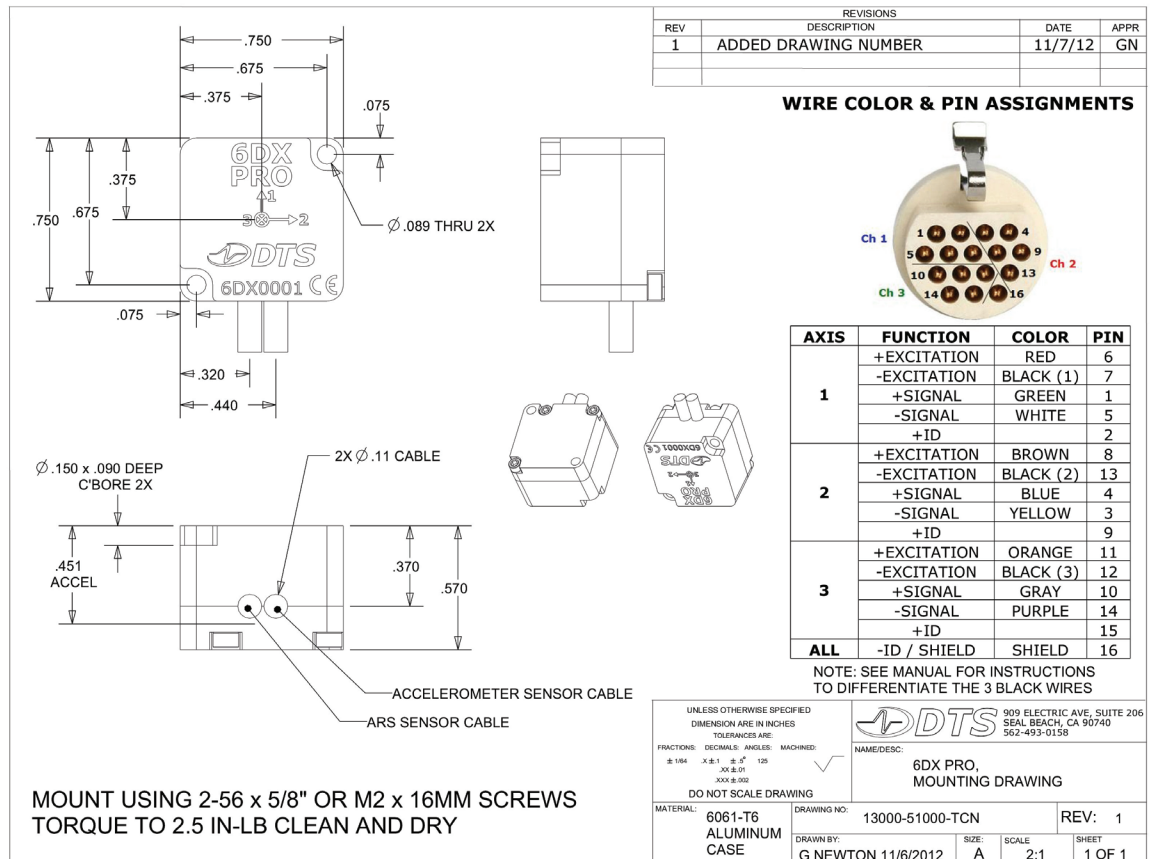
Type: Standard: two triax 16-pin Omnetics connectors with Dallas ID (23 ft).
Optional: Adapter cable with pigtails or connectors of choice (2 ft).

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, ± 18000 or 50000 deg/sec
Bandwidth: 0-2000 Hz, DC response
Excitation Voltage: 4.9-14 V, not proportional to excitation
Linearity: <1%
Transverse Sensitivity: $\pm 5\%$ (max)
Current: 6 mA nominal per axis
Full Scale Output: ± 2 V nominal
Zero Output: ± 200 mV



MOUNT USING 2-56 x 5/8" OR M2 x 16MM SCREWS
TORQUE TO 2.5 IN-LB CLEAN AND DRY