

APPLICATIONS

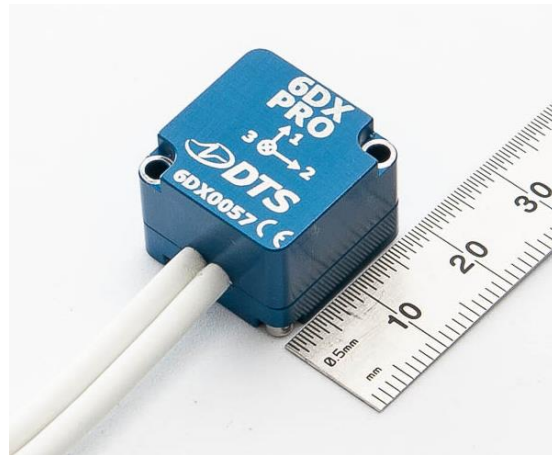
- Aerospace analysis
- Amusement ride testing
- Automotive safety
- Biomechanics
- Blast testing
- PMHS (cadaveric) testing
- Embedded monitoring
- Helicopter & aircraft
- Impact testing
- In-dummy
- Injury investigation
- Parachute deployment
- Package testing: truck, air, ship & rail
- Pedestrian head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

PRODUCTS

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

DTS 6DX PRO

Ultra-Small, Rugged Six Degrees of Freedom (6DOF) Sensor Package



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.

Features

- Ultra-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, triaxial	±300 deg/sec, triaxial
2K-1500	±2000 g, triaxial	±1500 deg/sec, triaxial
2K-8K	±2000 g, triaxial	±8000 deg/sec, triaxial
2K-18K	±2000 g, triaxial	±18000 deg/sec, triaxial
20K-50K	±20000 g, triaxial	±50000 deg/sec, triaxial

- IP67 Rated for dust protection and water immersion
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

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.



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:	2-10 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
- On-site Calibration & Training
- Application Support
- Software Integration
- OEM/Embedded Applications

WORLDWIDE SUPPORT

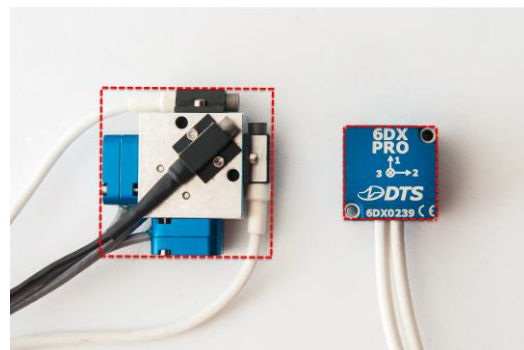
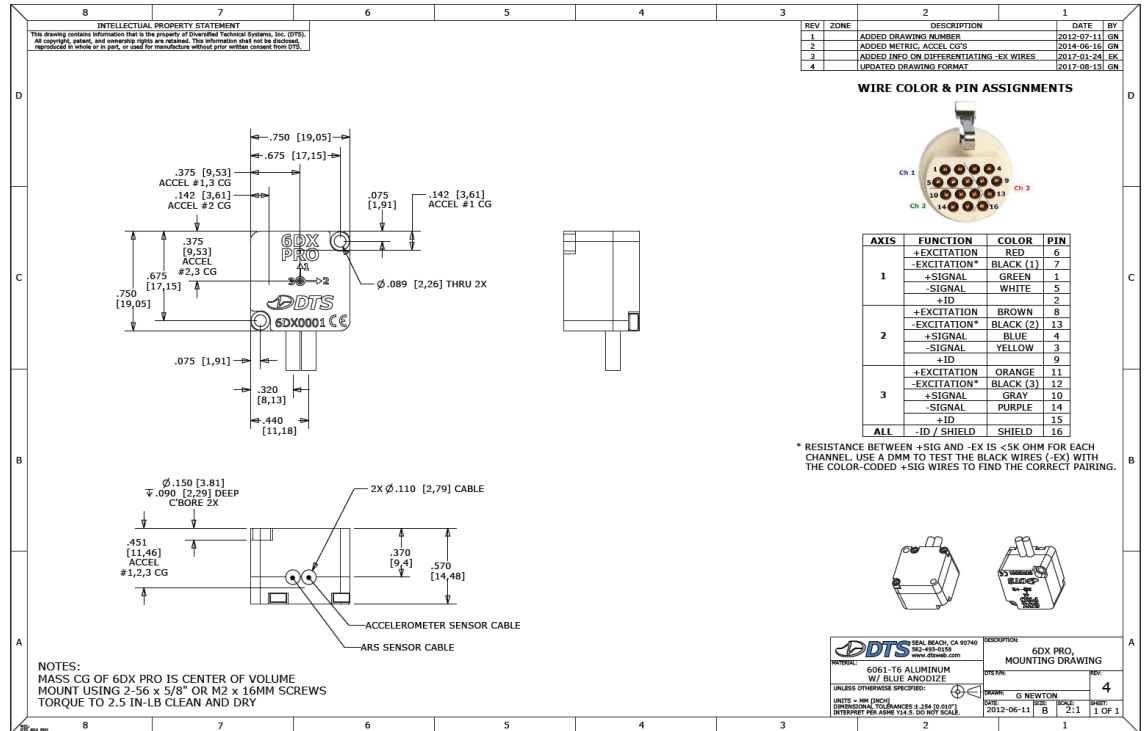
- HELP CENTER (24/7/365 Access)
- DTS Technical Centers
- Global Sales Partners

HEADQUARTERS

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The 6DX PRO is 70% SMALLER and 50% LIGHTER than a triaxial block with six individual sensors.



Specifications subject to change without notice.
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