

## APPLICATIONS

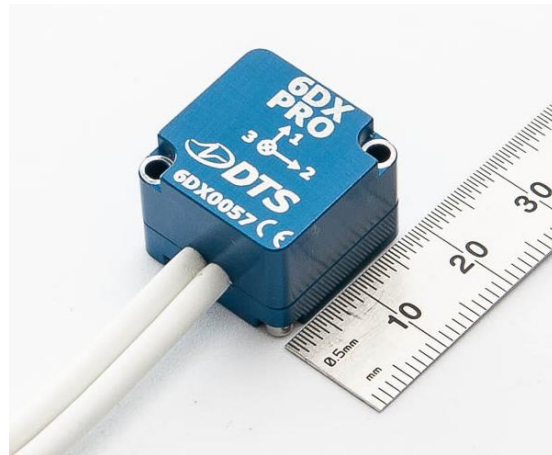
- Aerospace analysis
- Amusement ride testing
- Automotive safety
- Biomechanics
- Blast testing
- PMHS (cadaveric) testing
- Embedded monitoring
- Helicopter & aircraft
- Impact testing
- In-dummy
- Injury investigation
- Parachute deployment
- Package testing: truck, air, ship & rail
- Pedestrian head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

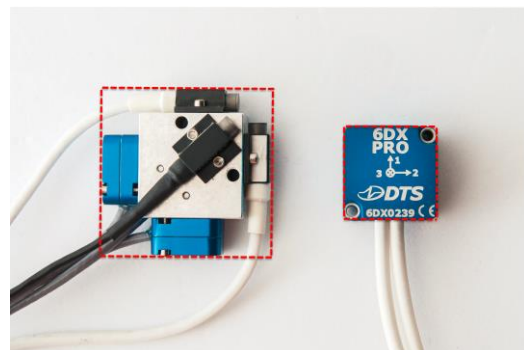
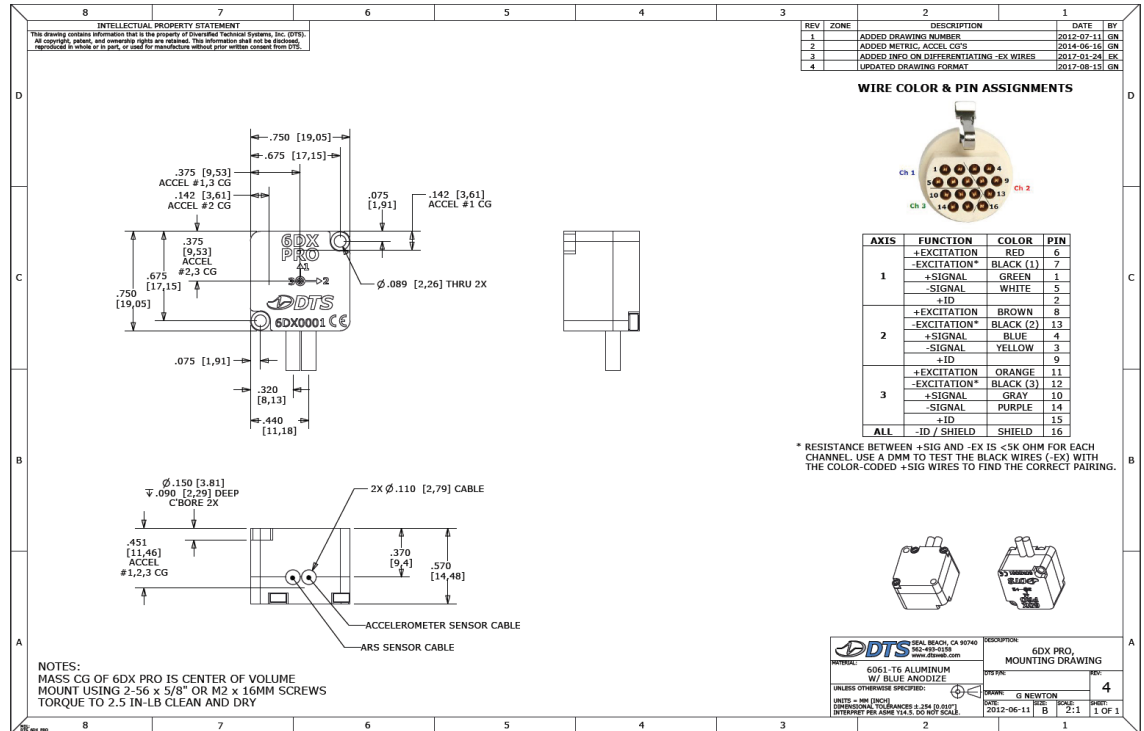
HELP CENTER (24/7/365 Access)  
DTS Technical Centers  
Global Sales Partners

## HEADQUARTERS

Seal Beach, California USA

## CONTACT US

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



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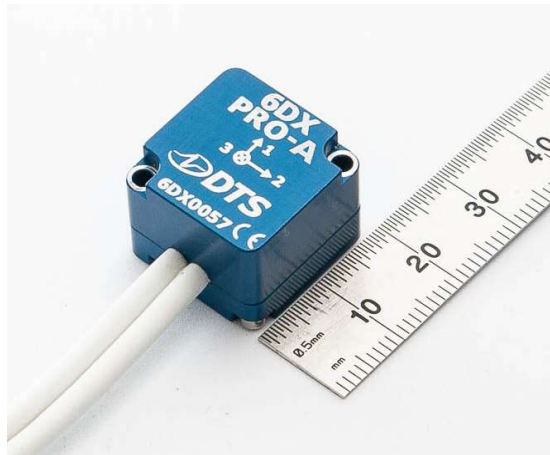
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## PRODUCTS

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

# DTS 6DX PRO-A

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



Designed for applications measuring high rates of acceleration and angular velocity, the 6DX PRO-A packages three accelerometers and three angular rate sensors in a compact 19 x 19 x 17.4 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
500-300	±500 g, triaxial	±300 deg/sec, triaxial
500-1500	±500 g, triaxial	±1500 deg/sec, triaxial
500-8K	±500 g, triaxial	±8000 deg/sec, triaxial
500-18K	±500 g, triaxial	±18000 deg/sec, triaxial
500-50K	±500 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-A 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 6DX PRO-A is available in several range options. The 6DX PRO-A 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 17.4 mm (0.75 x 0.75 x 0.68")
Mass:	14 g (0.49 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:	10000 g, any direction
IP Rating:	IP67

SENSORS: ACCELEROMETER	
Range:	±500 g
Bandwidth:	0-5000 Hz, DC response
Linearity - % FS:	< 1%
Transverse Sensitivity:	3% (max), 2% (typical)
Damping Ratio:	0.7 nominal
Noise Density:	125 µg/√Hz
Nominal Sensitivity:	3.75 mV/g
Zero Output:	±3% FS (max)
Thermal Zero Shift:	±0.01% FS/°C (-40 to +85°C)
Thermal Sens. Shift:	±0.1 %/°C typ (-40 to +85°C)
Shunt Check:	3000 Ω equivalent bridge resistance
Excitation Voltage:	4.9-14 V, not proportional to excitation
Current:	2 mA nominal per axis

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:	4 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

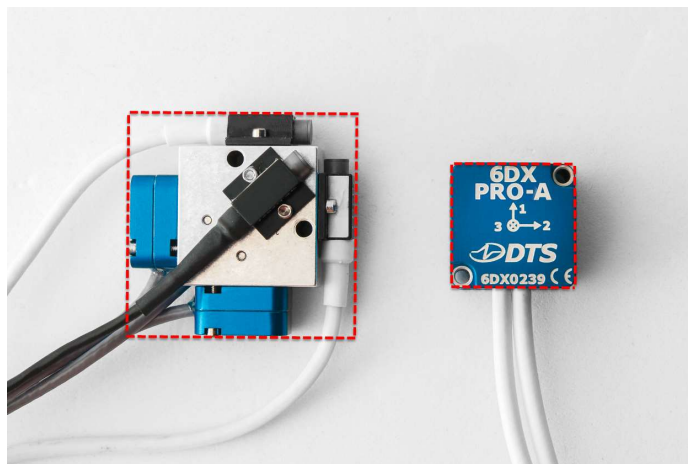
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