TECAT Introduces Custom Enclosures for Protection of WISER 2030-S Wireless Torque Sensor's Remote Unit and Battery

ANN ARBOR, Mich. — May 18, 2016 — TECAT Performance Systems today introduced new custom-built remote enclosures for its WISER 2030-S wireless torque sensor. Designed to protect the system's remote unit (electronics) and Li-Poly battery from damage due to debris, the enclosures accommodate a wide range of shaft diameters and can be attached with one- or two-hose clamps.

Available as optional accessories, the WISER 2030-S remote enclosures are made of a rugged plastic material designed for high impact strength. The enclosures consist of a black base and a red cover for the remote unit and white cover for the Li-Poly battery. The base is available in three sizes with heights of 15 mm, 16.5 mm, and 18.5 mm for shaft diameters from 19 mm to > 60.3 mm. The enclosures feature an operating temperature range of -40 °C to +80 °C, and allow for maximum RPMs to 15,000 when secured to the shaft under test with a two-hose clamp.

"Mounting locations for WISER remote units and batteries are often difficult to access once the objects under test are assembled, so not only is there the cost of replacing components damaged by debris, but there is also the subsequent system downtime," said Don Keating, vice president, new business development, at TECAT Performance Systems. "To save our customers time and money, our new remote enclosures offer the durability of PA 2200 plastic and the flexibility to accommodate a number of shaft diameters."

TECAT's WISER systems are the smallest, lightest, and most power-efficient solutions available for the measurement of torque, acceleration, pressure, and temperature. The WISER Model 2030-S is comprised of three subsystems. The remote unit consists of the data-capture electronics connected to Micro-Measurements strain gages, a transceiver, and a long-life battery. The base unit plugs directly into a PC USB port and houses an antenna, transceiver, and up to two analog outputs. The WISER Data Viewer software is used for system configuration and calibration, live monitoring, and data logging. The WISER 2030-S enables positive and negative shunt calibration with two independent shunt calibration legs using 100 kΩ resistors.

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In addition to measuring torque, the WISER 2030-S has the optional ability to measure 3-axis acceleration, barometric pressure, and ambient temperature, all within a small footprint measuring 36 mm x 23 mm x 4 mm. On-board high-speed data logging with triggering capability allows high-resolution data to be collected on the remote unit without PC or DAQ connectivity, while remote flash enables firmware upgrades without removing the system from the unit under test.

Enclosure Specification Table:

Shaft diameter	Height	Max. RPM for enclosure	
		With two-hose clamp	With one-hose clamp
19 mm to 28.5 mm	18.5 mm	15,000	12,000
28.5 mm to 60.3 mm	16.5 mm	10,000	8,000
> 60.3 mm	15.0 mm	See note below	

Note: For shafts greater than 60.3 mm in diameter, calculate the centrifugal force for a 27 g mass located at the surface of the shaft. This force must be less than 250 lb. for an enclosure secured with two stainless steel hose clamps, and must be less than 150 lb. for an enclosure secured with one stainless steel hose clamp.

The WISER 2030-S remote enclosures are available now and will be on display for the first time at Automotive Testing Expo Europe 2016, May 31-June 2, at booth 1176 in Hall 1 at Messe Stuttgart in Stuttgart, Germany. To schedule a demonstration or to request more information, please click here.

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About TECAT Performance Systems
TECAT Performance Systems was founded in 2010 by Dr. Douglas Baker, CTO and inventor of its torque telemetry system. The company designs and manufactures the smallest, lightest, most power-efficient wireless sensors available. These features enable the measurement of torque, acceleration, and atmospheric data in places never before accessed. The company is headquartered in Ann Arbor, Michigan. More information on TECAT Performance Systems is available at http://tecatperformance.com/.

Link to detailed product information:
http://tecatperformance.com/wiser-data/

Link to enclosure photo:
http://tecatperformance.com/wp-content/uploads/2016/05/TECATRemoteEnclosure.jpg

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