MACHINE BUILDING & ENGINEERING



WIRELESS TEST RIGS

Tirius, a company at the forefront of electric vehicle design and development has supplied a test rig based on a wireless torque sensor to a renowned UK University automotive research facility.

The project looks at permanent magnet traction motors in a number of sizes and configurations, with a view to optimising electronic control for each motor type. Each motor is run on a test rig through its full output range, mapping its torque output at many points to build up a performance profile.

The design of the test rig is in fact quite simple, thanks to the torque sensor, a TorqSense, as **made by Sensor Technology**. The sensor's non-contact operation allows rapid set-up during the profile building test runs. It also means extra drag forces are not added to the system, so measurements represent true values and calculations are therefore straightforward. **Tel: 01869 238400**

EXTENDS SENSOR WORKING LIFETIME

Routine sensor replacement is a necessary maintenance step in continuous online pH monitoring; the **Sensorex** SD7500 Universal Differential pH Probe extends the working lifetime of sensors, reducing maintenance frequency, without compromising accuracy and reliability.

The SD7500 probe measures process pH differentially with three electrode sensors: a process pH electrode, a pH reference (actually a second measuring pH electrode in a known pH 7.0 buffered cell solution protected by a replaceable salt bridge reference junction), and a titanium ground electrode.



The result is a highly accurate differential pH measurement that is virtually unaffected by ground loop measurement errors. The three electrode design, coupled with durable Ryton Polyphenylene Sulfide (PPS) body construction, resists process contamination. **Tel: +1714 895 4344**

SLIDING FRAME DOCKING CONNECTOR

Harting's new Han-Modular Sliding Frame is a docking connector designed for use with motor control centres that incorporates a test position in addition to the normal mated and unmated positions.

Up to now, docking connectors have only featured the "plugged in" and "not plugged in" states. The Han-Modular Sliding Frame now allows three different plug-in states to achieve a mechanically simple solution to ensure easy and safe assembly.

In the unplugged position, the signal connector and the power connector are both unplugged, and the drawer is not in the switch cabinet. In the testing position, the drawer is pushed into the switch cabinet and the signal connector is mated in the sliding frame. Between both sides of the power connector, which is located next to the signal



connector, a distance of about 35mm remains so that there is no "live" power transmission. The system is in a safe state and can be checked via the inserted signal connector.

After the test has been performed, the drawer - including the power connector - is pushed completely into the working position inside the switch cabinet. Here, the signal connector in the Han-Modular Sliding Frame moves in the direction of the cabinet's rear panel along with the drawer – until the power connector is also in the working position. The system can now safely be put into operation. **Tel: 01604 827500**