TT electronics Shows New Multi-Puck Position Sensor

14th November 2011, CAMBRIDGE, UK – TT electronics will be showing IndiSense - its new high performance position sensing technology - at Compamed in Germany this week. The product platform has been developed by AB Elektronik, the sensor division of TT electronics. IndiSense is based on inductive sensing and is capable of high accuracy measurement over larger distances than current track systems. The ‘Large Displacement Encoder’ operates with linear or curved tracks and is capable of determining absolute position with a resolution of just 40 microns.

This is the first time the technology has been shown publicly in the medical sector. IndiSense will be invaluable to medical equipment OEMs in applications such as: oncology radiotherapy, syringe pumps and robotic surgery. Key benefits include: contactless operation, high absolute position accuracy with high speed and reliability. Importantly for medical applications, the system is magnet-free, immune to DC fields and robust against RFI and EMI.

The platform is based on similar technology well proven by AB Elektronik in the automotive sector. The IndiSense non-contact sensor has excellent tolerance against ‘z-direction’ offset errors and can be packaged in a variety of formats. The technology can be supplied as a skeleton construction suitable for user integration, or as a pre-packaged sensor enabling use in a wide range of environments.

The product can be used in a true non-contact mode, eliminating issues of wear as well as being highly tolerant of contamination from, for example, dust or moisture.

The IndiSense range of technologies now includes linear, curved and hollow shaft geometries, and both single and multiple pucks that close couple with a track whose length and contours can be tailored according to the application. Software processes the data from the multi-pucks to produce a continuous output in various output protocols including RS232, Ethernet and PWM.

“This is great example of an innovative technology that has been developed through leveraging skills and techniques gained during our many years of automotive experience”, said Phillip Joyce, Global Business Development Director at AB Elektronik. “It fits well with our mission of delivering the best value solutions for critical sensing applications.”

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