Press Release

The EtherCAT Technology Group Announces Power over EtherCAT

The EtherCAT Technology Group (ETG) has enhanced its namesake technology with a new "Power over EtherCAT" option. The specification enhancement makes use of the IEEE802.3af Power over Ethernet (PoE) functionality and can be implemented with commercially available chips. Power over EtherCAT is particularly suitable for encoders or linear position sensors, which now can be connected to EtherCAT using a single, standard Ethernet cable.

The Power over EtherCAT enhancement was adopted at the recent fall meeting of the ETG Technical Committees, which took place near Frankfurt, Germany. Stub lines and star topology together with line, tree and redundant ring have always been part of the EtherCAT topology variety. This is now enhanced with the possibility to build devices with just one connector each that are powered over the data line. For this, the Power over Ethernet standard IEEE802.3af is used, which supports up to 13 Watts per device. For EtherCAT slave devices, the ETG specifies mode A of the standard, which only needs 4 wires: standard Industrial Ethernet connectors such as the 4-pin M12 can still be used. Devices powered by a separate line can be connected to Power over EtherCAT breakouts without problems. It is also possible to enhance the spec towards the future high power IEEE802.3at standard (PoE Plus or High Power PoE) because this is downwards compatible.

Power over Ethernet chips are available from several vendors and the first Power over EtherCAT devices are expected to be shown at the SPS/IPC/Drives show in Nuremberg, Germany, at the end of November 2008.

EtherCAT sets new standards for real-time performance and topology flexibility, while meeting or undercutting fieldbus cost levels. EtherCAT features include high precision device synchronization, a cable redundancy option and a functional safety protocol (SIL3).

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The **EtherCAT Technology Group** (ETG) is an organization in which key user companies from various industries and leading automation suppliers join forces to support, promote and advance EtherCAT technology. With over 850 members from 44 countries, the EtherCAT Technology Group has become the largest organization in the world that is exclusively focused on Industrial Ethernet technologies. Founded in November 2003, it is also currently the fastest growing fieldbus organization.

For further information please see **www.ethercat.org**