EtherCAT Technology Group releases new device standard for the semiconductor industry

With the recently released device standard ETG.5003-1 and its corresponding nine specific device profiles, the EtherCAT Technology Group (ETG) now provides a starting point for a new generation of tools in the semiconductor industry, breaking ground for dramatic new developments within the industry as a result.

The release of the new device profiles ensures that EtherCAT will no longer only be used for motion control, I/O, sensors and gateways in semiconductor manufacturing machines. From now on industry specific devices such as mass flow controllers or vacuum valves can be implemented directly into the EtherCAT system. On the technical side of this process, Florian Hafele supervises the ETG Semiconductor Technical Working Group and explains: “Since the release of the device profiles developed in 2012, we responded to machine builders’ demands to establish EtherCAT in the semiconductor industry as well to facilitate the creation of new industry-specific devices. We expect that EtherCAT will be found in nearly all tools, at the very latest when the 450 millimeter wafer diameter standard has been adopted for all semiconductor manufacturing machines.”

The new profile ETG.5003-1 (Common Device Profile = CDP) describes the general requirements for devices that are published within the specification series ETG.5003. At the moment this concerns nine different device types which are defined in the so-called Specific Device Profiles (SDP). Together with the CDP they provide the starting point for a new generation of devices with which more advanced machines of the future will be designed. The benefits of the new standard are as simple as they are compelling: From the view of EtherCAT even devices from different manufacturers are now equal regarding their data structures and synchronization modes. This makes replacement and handling easier and significantly more understandable for tool manufacturers. Additionally, the industry-specific devices thus will get a more unique look and feel.

That the profiles were finished in a relatively short amount of time is not least the result of the strong commitment within the semiconductor industry: companies like Applied Materials, Lam Research and Tokyo Electron not only participated actively in the specification process, but also encouraged their device suppliers to take part in the ETG Semiconductor Technical Working Group.
Press Release

Press pictures

Picture caption:
The ETG Semiconductor Technical Working Group, here during a meeting in Santa Clara, California, USA, specified 10 new device profiles for the semiconductor industry.

About EtherCAT Technology Group (ETG):
The EtherCAT Technology Group is an organization in which key user companies from various industries and leading automation suppliers join forces to support, promote and advance the EtherCAT technology. With over 2,300 members from 56 countries the EtherCAT Technology Group has become the largest fieldbus organization in the world. Founded in November 2003, it is also the fastest growing fieldbus organization.

About EtherCAT®:
EtherCAT is the Industrial Ethernet technology which stands for high-performance, low-cost, easy to use with a flexible topology. It was introduced in 2003 and has been an international standard since 2007. The EtherCAT Technology Group promotes EtherCAT and is responsible for its continued development. EtherCAT is an open technology: anyone is allowed to implement or use it.

⇒ For further information please see: www.ethercat.org

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