



PC-based control for process automation: New products for hazardous areas and integration of relevant interfaces

HART functionality integrated in TwinCAT software and I/O system

In the process industries, demands are increasing for groundbreaking and innovative automation solutions that reduce costs. The greatest potential for optimization is opened up by implementing a universal platform that covers both industrial automation and process automation. PC-based control from Beckhoff fits this bill by integrating process-specific protocols and interfaces, and by offering an extended range of products for hazardous areas. Full implementation of HART functionality, both in the I/O system and in the TwinCAT engineering environment, promotes simple project planning and reliable commissioning.

TwinCAT automation software clearly reduces development efforts in process technology because it facilitates the application of comprehensive HART functions directly from the engineering interface. In this way, the TwinCAT FDT (Field Device Tool) container enables implementation of any field device drivers (Device Type Manager, DTM). Thus, an entire HART configuration can be implemented efficiently using a single tool.

The Beckhoff CommDTM integrates the TwinCAT platform into existing process control systems. With its help, the DTMs can be implemented in any FDT container. This applies to all field devices connected to the HART-capable EtherCAT Terminals. These devices can be configured and parameterized remotely in the known containers without requiring direct PLC access. As a result, system operation is simplified and reduced to the essentials. In addition, the Beckhoff OPC UA Server and Client enable secure global distribution of process data, as well as convenient system control and remote maintenance capabilities.

Explosion protection systematically integrated into product portfolio

The new, highly compact EtherCAT Terminals in the ELX series are also HART-capable. With intrinsically safe inputs/outputs, they enable the direct integration of field devices installed in hazardous areas, Zones 0, 1 or 2, into the automation system. The reduced wiring effort and associated space savings result in an integrated, cost-effective solution for process applications. Furthermore, the new CPX series of Control Panels and Panel PCs makes the high-quality design and advanced multi-touch display technology from Beckhoff available for locations subject to explosion hazards.

Further information:

www.beckhoff.com/process