



SIL rotary encoders now means safety over EtherCAT Capable!

As a specialist in industrial interfaces and functionally safe position sensors, TR-Electronic has once again connected two worlds. The safe rotary encoders CDV75M and CDH75M can now also be used directly with safety-oriented EtherCAT networks. They support the Functional-Safety over EtherCAT (FSoE) protocol. And transmit safe speed and safe position values over the Industrial-Ethernet network. The measured values are acquired by two independent scanning units, and reliability is ensured by a cross comparison of the data. The rotary encoders are certified and can be used in safety functions where safety levels of SIL3 or PLe are mandated.

Safety is integrated directly into the rotary encoder; no further evaluation units or safety modules are required. This means a considerable reduction in wiring and configuration is accomplished. During configuration, parameters such as difference and standstill window, and direction of rotation or integration time, are set directly via the safe parameterization channels per the FSoE protocol. The electronic adjustment is particularly helpful: During standstill, the rotary encoder output value can be moved to within the measuring range by means of a safe protocol, without mechanically turning the shaft. This considerably simplifies adaptation of the mechanical system.

At the same time, position and speed can also be read out via non-safe, or "normal" EtherCAT protocol. The position values are therefore also available for quick position control outside the secure data range. Integrated safety with TR-Electronic, safety over Ethercat, enables entirely new system layouts including cooperative workstations, where operator and machine can share the same work space efficiently, reliably, and safely.

www.tr-electronic.com/s/S010995

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