

Further applications for safe compact encoders opened up

TR Electronic has successfully certified SIL encoder with Powerlink/openSAFETY.

After the great market success of the functionally safe CD_528 encoder series from TR Electronic with the PROFINET/PROFIsafe, and Ethernet/IP with CIP Safety™ interfaces/protocols, the Trossingen-based specialist for absolute position sensing has now also been able to obtain certification for the version with Ethernet Powerlink and openSAFETY protocol. This new product variant builds on the proven, technologically cutting-edge modular system of SIL encoders in the 58 mm dimension and at the same time uses the experience gained with Powerlink in the larger CD_75 series.

This means that users of the compact safety encoders can now access the control world of B&R as well as other systems that use safe communication via Powerlink with openSAFETY. The functionally safe encoders are not only ideally suited to the application in terms of their interface. Mechanically, they can be connected using solid shafts, blind hollow shafts and through hollow shafts. The shaft diameters vary up to 12 mm for solid shafts and 15 mm for hollow and blind shafts. As required for safety-related measuring systems, the positive locking of the drive shaft is ensured by a keyway/keyway connection; for the hollow and blind shafts, there is even an SIL-compliant torque support made of spring plate.

Degrees of freedom are also available in the scanning technology, with which the measuring system can be adapted specifically to the requirements. Whether fully magnetic scanning or with the fast, high-resolution scanning of optical position sensing; the encoders are optionally available for applications according to SIL2/PLd or SIL3/PLe. There is a special feature for the devices with optical scanning as an option: In addition to the safe bus system, the position value is also output via an SSI or incremental interface (not safety-related). This additional interface can be used, for example, to supply subordinate control loops without having to take a detour via the controller. At the same time, in all variants (depending on the possibilities of the interface protocol) there are not only the secured transmitted actual values, but also the direct measured values of an encoder without additional protection, but mostly with considerably shorter cycle time.

Detailed technical data, instructions and the safety-related characteristic values for direct import into commercially available planning and design tools can be found on the TR Electronic homepage. As a special service,

the EPLAN macros for all versions can also be loaded directly from the homepage.

The CD_582 SIL encoders from TR Electronic and especially the freshly certified ones with Ethernet Powerlink - openSAFETY make the decision for safety-related encoders very easy: Same installation space, considerably higher safety. This is currently only available from TR Electronic with this variety of variants.

<https://www.tr-electronic.com/s/S025596>



Rotary absolute safety encoders with Powerlink / openSAFETY
CD_582+FS made by TR Electronic