

Functional safe sensors in stainless steel housing

Absolute encoder with stainless steel housing from TR Electronic withstand aggressive environments and provide functional safety.

Sometimes things get tough: when encoders are needed in aggressive environments that also have to meet high functional safety requirements, solutions are needed that meet both challenges.

With the new CD_582 SIL encoders, TR Electronic combines two of the competencies that the encoder specialist has acquired in the now 40 years of the company's history:

The compact, functionally safe encoders of the CD_582 series, with their internal dual-channel design, directly generate an absolute position signal that can be used directly in applications that must meet safety integrity level 2 or 3, or performance level d or e. The supported transmission standards are PROFIsafe via PROFINET, CIPsafety via Ethernet/IP and open Safety via Powerlink as well as CANopen Safety.

TR Electronic now combines this with the housing design in high-quality stainless steel 1.4404, AISI 316L. This means that nothing stands in the way of an application in aggressive environments. The surface is smooth, as status information and reset function are integrated into the software and the nameplate data is permanently lasered into the stainless steel surface. The uniform connector connection pattern on the side away from the shaft and a simplified flange/shaft geometry also minimize the contact surface for liquids and dust. The encoder is available with a degree of protection up to IP 67, which also allows the encoder to be washed down.

The external geometry, which ultimately determines the required installation space, hardly changes - where the regular CD_582 fits in, the CD_582 in the stainless steel housing can also be installed.

With the standardized connectors, the user has access to a wide range of pre-assembled cables. Different sheath materials are suitable for different classes of materials. Thus, TR Electronic also has special solutions for special environments.

- Functional safe (SIL3, PLe) absolute encoder compatible with 58 industrial standard.
- Stainless steel 1.4404, AISI 316L
- Solid shaft, 10 mm with keyway
- standard flange

- centering collar Ø 36 mm for clamp mounting
- with threads on the face
- for clamping claws or servo clamps
- Industrial Ethernet PROFINET with PROFIsafe, Ethernet/IP with CIPsafety, Powerlink with openSAFETY
- Fieldbus CANopen Safety
- Tightness up to IP 67
- encoder with minimized contact surface for aggressive media



Rotary encoders made by TR provide functional safety and withstand harsh environmental conditions.