

PROFINET - always up to date

TR-Electronic revises sensors for industrial standards

TR-Electronic, a well-known manufacturer of absolute multiturn encoders, has been supporting PROFINET since the very beginning at the turn of the millennium. In the approx. 20 years in which the automation world has been inspired by PROFINET, the bus standard has changed several times and has been further developed for various areas of application. As with PROFIBUS, a profile has been defined especially for rotary encoders that standardizes communication between the controller and rotary encoder and thus makes the software on the automation device as independent as possible of the selected sensors. This profile is now available in version 4.2. In the latest generation of encoders, PROFINET is one of the most frequently requested interface technologies. And so it is not surprising that the product family that has already been introduced is continuously being modernized and improved. The latest update for the absolute encoders with a size of 58 mm, which is available with a solid shaft, blind shaft or a continuous hollow shaft, unifies the connection options and again saves a few mm in height (for devices with connection panel on the side). What all devices have in common is that they can be reset to the delivery state using the reset button without a controller being connected. This functionality was previously available as an option, now it is available as standard in all PROFINET devices of the C__582, C_H802 and C_H1102 families.

In the delivery state sensors can use neighborhood detection (depending on the configuration of the controller) to determine where they are being used in the network and the necessary configuration data can be provided by the controller with this information. Exchanging encoders in particular is child's play and works completely without access to the control or the control program. But once an encoder has been integrated into a network, it retains the application-specific identification features. Here the reset button helps to restart the neighborhood detection if devices have only been exchanged for testing purposes, for example.

Like all Industrial Ethernet devices from TR-Electronic, the PROFINET encoders of the latest family are connected with robust, industrial-grade M12 connectors. The star-shaped network is opened to the line by the integrated switches - the bus line is continued from encoder to encoder. Mixed topologies are also possible. With the "Media Redundancy Protocol" the availability can be increased again - the line is closed to a ring (on an automation switch suitable for MRP). This means that there are two routes to each device in this segment - if one route fails (e.g. due to a cable break or total failure of a bus participant), the other devices on both sides of the separation point are still available for the control.

TR-Electronic thus provides the latest interface technology in the area of absolute rotary encoders with real multiturn, from the compact 58 mm industrial dimension of the C_582 series to large through hollow shafts with a diameter of 50 mm of the C_H802 and C_H1102 series.

TR-Products C__2 PROFINET <https://www.tr-electronic.com/s/5023853>



Rotary encoders with PROFINET by TR Electronic,
Series 582, 802 and 1102



Solid shaft, blind shaft, hollow through shaft in C__582 with PROFINET

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