

Analog in the digital age

Absolute encoder from TR-Electronic with freely configurable analog interface

Even in the age of Industrial Ethernet, IO-Link and Industry 4.0, analog signal transmission is still widespread and is used in new systems. It is a very cheap alternative on the control side if the desired resolution is suitable for analog transmission. Even the simplest controllers have analog interfaces that can be used for simple position or speed feedback. And - implemented as a current interface - larger transmission lengths can also be implemented easily.

The analog interface from TR-Electronic in the latest encoder series is a true all-rounder. The multiturn position signal can be used as the basic variable for the 16-bit D / A converter. The speed signal can be used as well. When the position value is selected, the start and end point of the converted range can be freely set within the entire multiturn measuring range. You can also configure whether the analog signal is output as voltage (0..10V, -10..10V) or current (0..20mA, 4..20mA). As a current interface with "live zero", the analog interface provides a very effective method of implementing secure transmission. Live zero interface reliably monitors both the function of the encoder and wire break quite simple without protocols and software and on just two wires.

The desired settings can either be selected conveniently on the PC using TR's own software or, without any additional aids, directly using the button on the device. The button and the feedback indicator are protected by a cap, which must be closed during operation to achieve the specified tightness. First the type of output (0..20mA, 4..20 mA, 0..10V, -10 .. + 10V) is set and then the scaling is determined by teaching the start and end point of the desired range of motion. The feedback is given via multi-color LEDs.

Thanks to the modular concept of the latest generation of encoders from TR-Electronic, the analog interface is available for all detection systems. Magnetic detection offers sufficient resolution even for positioning over several revolutions, high-resolution, optical detections provide enough position resolutions to control the analog signal even with the smallest movement ranges.

All mechanical variants are available with the new analog interface: size 58 with solid shaft, blind hole and hollow shaft up to 15 mm, in size 80 with continuous hollow shaft up to 27 mm, in size 110 with continuous hollow shaft up to 50 mm.

www.tr-electronic.com

Video: <https://youtu.be/bn9VGTw0fYY>

Our products: <https://www.tr-electronic.com/s/S022876>

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Rotary encoder in sizes 58 to 110 mm by TR-Electronic.