EL51xx: EtherCAT I/O series extended by four highly compact, high-performance terminals

Compact and cost-effective analysis of incremental signals

Incremental encoders have become indispensable in many applications due to their compactness and low price points. Beckhoff meets this important need with the comprehensive EL51xx EtherCAT Terminal series for analysis of 5 V incremental encoders via RS422 and TTL signals. With their extension by four highly compact and high-performance I/Os, analysis of incremental signals in the controller can now be implemented in an even more space-saving and cost-effective manner.

The four new EtherCAT Terminals acquire incremental signals with high frequencies up to 5 MHz and feature numerous parameterization options and integrated functions that enable optimum adaptation to control tasks.

Each EtherCAT Terminal offers an integrated sensor supply, parameterizable to 5, 12 or 24 V. Encoders with differential RS422, 5 V TTL or open collector interface can be connected. Based on internal pull-up resistors, no external wiring is required for open collector analysis. Additional 24 V digital inputs are used to save, lock and set the counter value. A wide range of integrated functions, such as rotary axis functionality, workpiece measurement and standstill monitoring, also enable data pre-processing directly in the terminal. Beyond that, the measurement of period, frequency and speed with a resolution of 10 ns is also available. In addition, a duty cycle measurement of the incoming signal is implemented. Due to the optional interpolating micro-increment functionality, the terminals

Beckhoff Automation GmbH & Co. KG
Huelshorstweg 20
33415 Verl, Germany
Phone: +49 5246 963-0
E-Mail: info@beckhoff.com
www.beckhoff.com

Press contact
Silke Franke
Vera Schnatmeyer
Phone: +49 5246 963-140
E-Mail: press@beckhoff.com
www.beckhoff.com/press

can determine even more precise axis positions for dynamic axes. The synchronous reading of the position values with other process data in the EtherCAT system is realized via the high-precision EtherCAT distributed clocks. This enables simple and precise synchronization of controller tasks. The EL51xx series is extended by the following EtherCAT Terminals:

– EL5102: 2-channel incremental encoder interface, 5 V (RS422, TTL, open collector)
– EL5112: 2-channel incremental encoder interface, 5 V (2 x AB or 1 x ABC RS422, TTL, open collector)
– EL5122: 2-channel incremental encoder interface, 5 V single-ended (TTL, open collector)
– EL5131: 1-channel incremental encoder interface, 5 V with two parameterizable 24 V DC outputs

➔ **www.beckhoff.com/el51xx**

Press picture:

Picture caption:

The four new EL51xx EtherCAT Terminals enable the efficient use of incremental encoders.

Text and picture:

www.beckhoff.com/press/pr132020

Beckhoff Automation GmbH & Co. KG
Huelshorstweg 20
33415 Verl, Germany
Phone: +49 5246 963-0
E-Mail: info@beckhoff.com
www.beckhoff.com

Press contact
Silke Franke
Vera Schnatmeyer
Phone: +49 5246 963-140
E-Mail: press@beckhoff.com
www.beckhoff.com/press