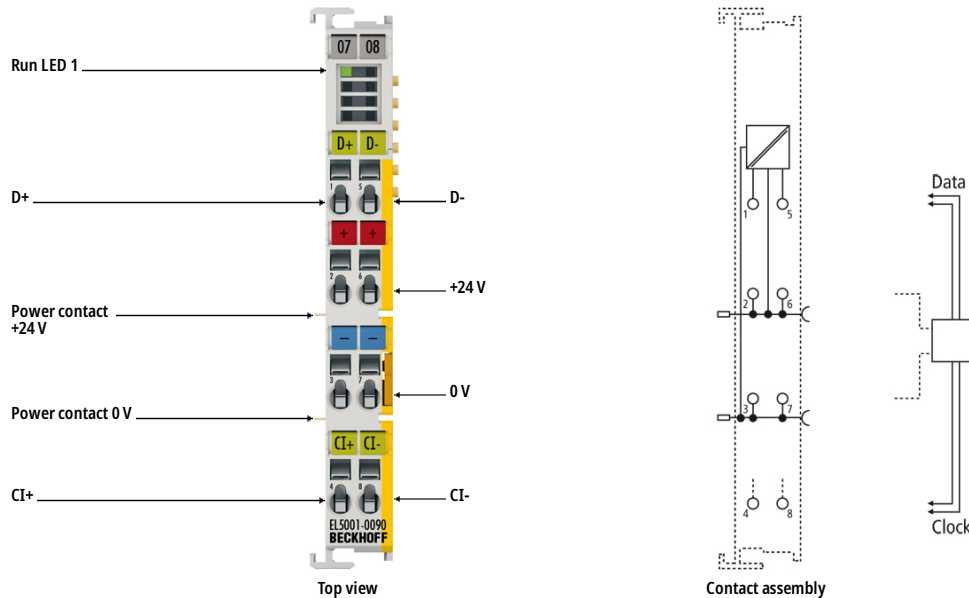


EL5001-0090 | EtherCAT Terminal, 1-channel encoder interface, SSI, TwinSAFE SC



i Product status: Regular delivery

The EL5001-0090 EtherCAT Terminal is an SSI master and enables the direct connection of an absolute encoder with SSI (synchronous serial interface). Both singleturn and multiturn encoders are supported. The 24 V supply of the encoder can be provided directly via the terminal connection points. The EL9505 power supply unit terminal can be used for an optional 5 V encoder operating voltage.

Extensive parameterizations allow optimum adaptation to different encoder types.

Special features:

- baud rate up to max. 1 MHz
- coding: gray and binary
- data length up to 32 bit, flexibly adjustable.
- separate evaluation of a status error bit (power fail bit) in the process data

Via the distributed clocks function, the position value is read out exactly synchronously with other processes. If the distributed clocks function is deactivated, the EL5001-0090 clocks synchronize with the EtherCAT cycle. The encoder profile enables simple and fast linking of the process data for motion control applications.

The EL5001-0090 also supports TwinSAFE SC (TwinSAFE Single Channel). This enables standard signals to be used for safety-related tasks in any network or fieldbus.

Product information

Technical data

Technical data	EL5001-0090
Technology	SSI encoder interface
Number of channels	1
Encoder connection	D+, D-, Cl+, Cl-
Encoder operating voltage	24 V DC (generated from the power contacts)
Signal output (pulse)	difference signal (RS422)
Signal input (data)	difference signal (RS422)
Power supply	24 V via power contacts
Data transfer rates	variable up to 1 MHz, 250 kHz default
Serial input	variable up to 32 bit, 24 bit default
Data direction	read
Current consumption power contacts	typ. 20 mA + load
Current consumption E-bus	typ. 120 mA
Distributed clocks	yes
Special features	TwinSAFE SC, adjustable baud rate, coding and data length, power fail bit activatable
Weight	approx. 55 g
Electrical isolation	500 V (E-bus/field potential)
Operating/storage temperature	-25...+60 °C/-40...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
Protect. rating/installation pos.	IP20/variable
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Approvals/markings	CE, UL, ATEX
Pluggable wiring	for all ESxxxx terminals
Ex marking	II 3 G Ex nA IIC T4 Gc

Housing data	EL-12-8pin
Design form	compact terminal housing with signal LEDs
Material	polycarbonate
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxx series
Wiring	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²

Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16
Stripping length	8...9 mm
Current load power contacts	I _{max} : 10 A

*s: solid wire; st: stranded wire; f: with ferrule