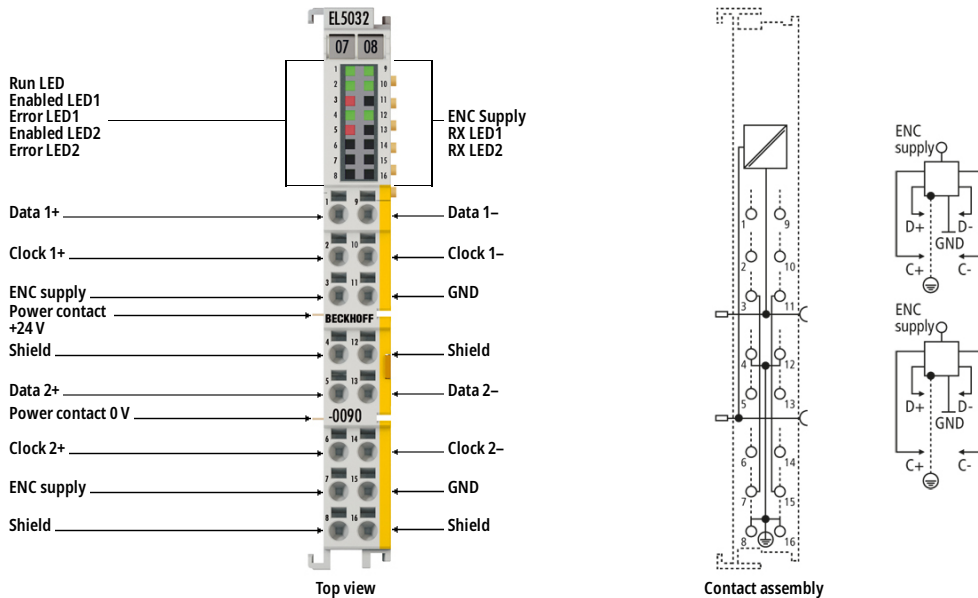


# EL5032-0090 | EtherCAT Terminal, 2-channel encoder interface, EnDat 2.2, TwinSAFE SC



**i Product status:** Regular delivery

The EL5032-0090 is used for direct connection of two encoders with EnDat 2.2 interface. The bidirectional interface enables automatic readout of position values, diagnostic data as well as internal and external temperature values and the electronic name plate of the encoder. In addition, the EL5032-0090 provides an encoder supply of 5 V or optionally 9 V.

The EL5032-0090 also supports TwinSAFE SC (TwinSAFE Single Channel). Thereby it is possible to make use of standard signals for safety tasks in any network or fieldbus.

Extensive functions enable a cost-effective and shortened commissioning.

Special features:

- automatic reading of the electronic type plate
- saving of user-defined data in the encoder
- position value output with up to 48 bits (depending on the encoder resolution)
- integrated sensor supply

Via the distributed clocks function, the position value is read out exactly synchronously with other processes. If the distributed clocks function is deactivated, the EL5032-0090 clocks synchronize with the EtherCAT cycle

The use of encoder profiles enables simple and fast linking of process data for motion control applications.

## Product information

### Technical data

Technical data

EL5032-0090

Technology	EnDat 2.2 interface (ordering designation Endat22)
Number of channels	2
Encoder connection	D+, D-, C+, C-
Encoder operating voltage	optionally 5 V DC or 9 V DC, 0.5 A total current (generated from the 24 V DC power contacts)
Supply voltage electronics	24 V DC (via power contacts)
Commands	reading position values including additional information available for selection via MRS code (Memory Range Select), reading and writing parameters, reset functions
Resolution	max. 48 bit position to PLC, max. 32 bit position to TwinSAFE Logic
Current consumption power contacts	typ. 150 mA + load
Current consumption E-bus	typ. 120 mA
Distributed clocks	yes
Special features	TwinSAFE SC, saving the zero offset shift, electronic type plate, diagnostics, warning, including cable length compensation up to 100 m, reading the encoder temperature values
Electrical isolation	500 V (E-bus/field potential)
Weight	approx. 50 g
Operating/storage temperature	0...+55 °C/-25...+85 °C
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, UL

<b>Housing data</b>	<b>EL-12-16pin</b>
Design form	HD (High Density) 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 conductors (e): direct plug-in technique; fine-stranded conductors (f) and ferrule (a): spring actuation by screwdriver
Connection cross-section	s*: 0.08...1.5 mm <sup>2</sup> , st*: 0.25...1.5 mm <sup>2</sup> , f*: 0.14...0.75 mm <sup>2</sup>
Connection cross-section AWG	s*: AWG 28...16, st*: AWG 22...16, f*: AWG 26...19
Stripping length	8...9 mm

**Current load power contacts** $I_{\max}$ : 10 A

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