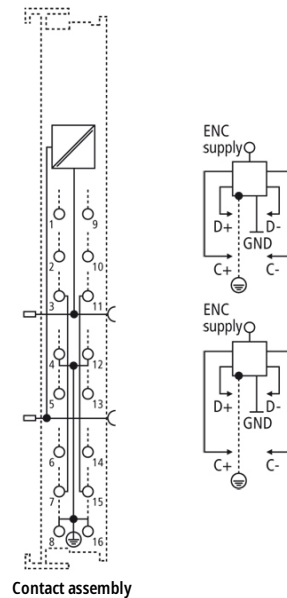
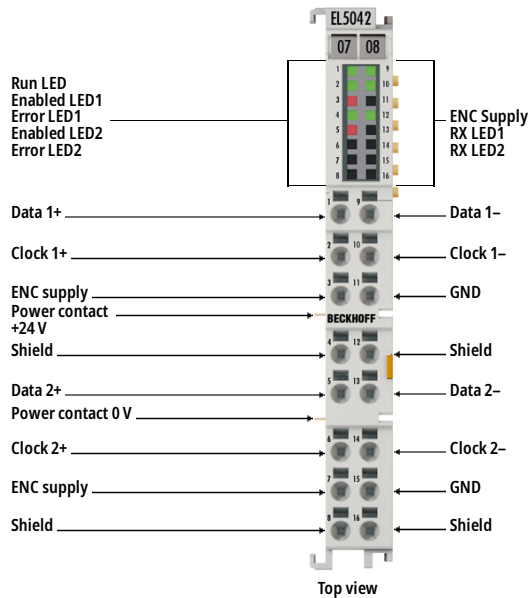


EL5042 | EtherCAT Terminal, 2-channel encoder interface, BiSS C



i Product status: Regular delivery

The EL5042 EtherCAT Terminals is a BiSS-C master and enables the direct connection of an absolute encoder with BiSS-C or SSI interface. Both singleturn and multiturn encoders are supported. The EL5042 also provides an encoder supply of 5 V or optionally 9 V.

The extensive parameterization allows optimum adaptation to different encoder types.

Special features:

- unidirectional BiSS-C communication
- parameterization per channel possible
- baud rate up to max. 10 MHz
- separate evaluation of the error and warning bit in the process data
- position value output with up to 64 bits (depending on the encoder resolution)
- also usable as SSI master

Via the distributed clocks function, the position value is read out exactly synchronously with other processes. If the distributed clocks function is deactivated, the EL5042 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

EL5042

Technology	BiSS C interface, unidirectional
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	–
Resolution	max. 64 bit position, 2 bit status, 8 bit CRC
Data transfer rates	up to 10 MHz, variable
Current consumption power contacts	typ. 150 mA + load
Current consumption E-bus	typ. 120 mA
Distributed clocks	yes
Special features	adjustable baud rate, data length, two status bits (error and warning) can be evaluated separately
Electrical isolation	500 V (E-bus/field potential)
Weight	approx. 50 g
Operating/storage temperature	0...+50 °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

Housing data	EL-12-16pin
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 ² , st*: 0.25...1.5 mm ² , f*: 0.14...0.75 mm ²
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