

EL5152 | EtherCAT Terminal, 2-channel encoder interface, incremental, 24 V DC HTL, 100 kHz

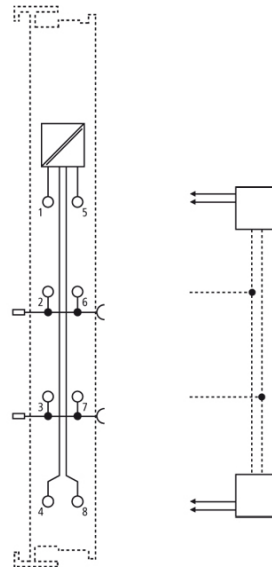
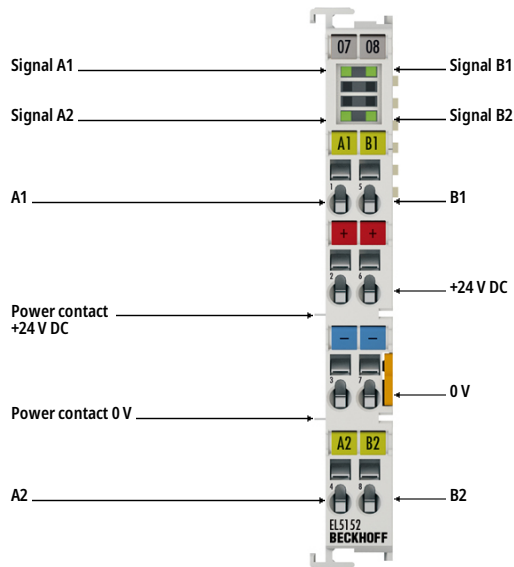
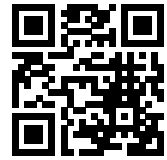


Image similar, may contain optional accessories

i **Product status:** regular delivery

The EL5152 EtherCAT Terminal is an interface for the direct connection of two incremental encoders (24-V-HTL) with A and B track. As an alternative, the EL5152 can be used as a up/down counter. The 24 V supply of the encoder can be provided directly via the terminal connection points.

Special features:

- parametrizable per channel
- function set counter via process data possible
- integrated frequency and period measurement
- optionally usable as 24 V up/down counter
- microincrements
- synchronous reading of the position value via distributed clocks

In addition, the EL5152 enables the measurement of a period or frequency with a resolution of 100 ns. With the optional interpolating microincrement functionality, the EL5152 can provide even more accurate axis positions for dynamic axes. It also supports synchronous reading of the encoder value together with other input data in the EtherCAT system via the high-precision EtherCAT distributed clocks (DC). The use of encoder profiles enables simple and fast linking of the process data for motion control applications.

Product information

Technical data

Technical data	EL5152
Technology	incremental encoder interface, HTL 24 V DC
Number of channels	2
Encoder connection	2 x A, B: 24 V, single-ended connection, EN 61131-2, type 1, "0": < 5 V DC, "1": > 15 V DC, typ. 5 mA
Encoder operating voltage	24 V DC (-15%/+20%), (generated from the 24 V DC power contacts)
Counter	2 x 16/32 bit switchable
Limit frequency	400,000 increments/s (with 4-fold evaluation), corresponding to 100 kHz
Quadrature decoder	4-fold evaluation
Distributed clocks	yes
Nominal voltage	24 V DC (-15%/+20%)
Resolution	1/256 bit microincrements
Current consumption power contacts	typ. 100 mA + load
Current consumption E-bus	typ. 130 mA
Electrical isolation	500 V (E-bus/field potential)
Special features	microincrements, period duration and frequency measurement, up/down counters
Weight	approx. 50 g
Operating temperature	-25...+60°C
Storage temperature	-40...+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
Pluggable wiring	for all ESxxx terminals
Approvals/markings	CE, UL, ATEX, IECEx, cFMus
Ex marking	ATEX: II 3 G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc cFMus: Class I, Division 2, Groups A, B, C, D Class I, Zone 2, AEx ec IIC T4 Gc

Housing data	EL-12-8pin	ES-12-8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
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 (s), flexible conductor (st) and ferrule (f): 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	s*: 0.08...1.5 mm ² , st*: 0.08...1.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG28...14, st*: AWG28...14, f*: AWG26...16	s*: AWG28...16, st*: AWG28...16, f*: AWG26...16
Stripping length	8...9 mm	9...10 mm
Current load power contacts	I _{max} : 10 A	

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

Ordering information

Ordering information	
EL5152	EtherCAT Terminal, 2-channel encoder interface, incremental, 24 V DC HTL, 100 kHz
ES5152	EtherCAT Terminal, 2-channel encoder interface, incremental, 24 V DC HTL, 100 kHz, pluggable wiring