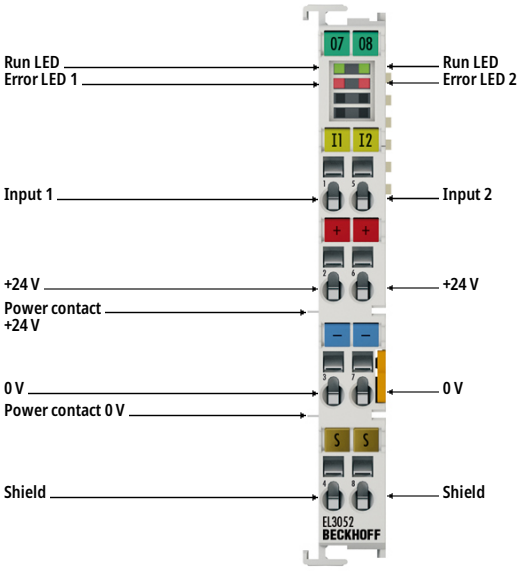
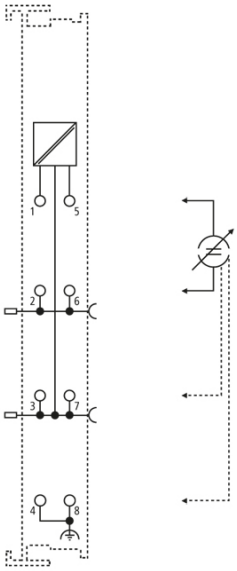
EL3052 | EtherCAT Terminal, 2-channel analog input, current, 4...20 mA, 12 bit, single-ended



Top view



Contact assembly

Product status: regular delivery

The job of the EL3052 analog input terminal is to supply power to measuring transducers located in the field and to transmit analog measurement signals with electrical isolation to the automation device. The voltage for the sensors is supplied to the terminals via the power contacts. The power contacts can optionally be supplied with operating voltage in the standard way or via a supply terminal (EL9xxx) with electrical isolation. The input electronics are independent of the supply voltage of the power contacts. The reference potential for the inputs is the 0 V power contact. The EtherCAT Terminal indicates its signal state by means of light emitting diodes. The error LEDs indicate an overload condition and a broken wire.

Product information

Technical data

Technical data	EL3052
Number of inputs	2 (single-ended)
Power supply	via the E-bus
Technology	single-ended
Signal type	single-ended
Signal current	4...20 mA
Distributed clocks	–
Internal resistance	typ. 85 Ω
Input filter limit frequency	1 kHz

Dielectric strength	max. 30 V
Conversion time	0.625 ms default setting, configurable, multiplex
Resolution	12 bit (16 bit presentation incl. sign)
Measurement error/ uncertainty	< ±0.3 % (relative to full scale value)
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 130 mA
Bit width in the process image	inputs: 8 byte
Special features	standard and compact process image, activatable FIR/IIR filters, limit value monitoring
Weight	approx. 60 g
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
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP20/variable
Pluggable wiring	for all ESxxxx terminals
Approvals/markings	CE, UL, ATEX, IECEx
Ex marking	ATEX: II 3 G Ex nA IIC T4 Gc IECEx: Ex 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 mm², st*: 0.08...2.5 mm², f*: 0.14...1.5 mm²	s*: 0.08...1.5 mm², st*: 0.08...1.5 mm², f*: 0.14...1.5 mm²
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16	s*: AWG 28...16, st*: AWG 28...16, f*: AWG 26...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

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EL3052	EtherCAT Terminal, 2-channel analog input, current, 4...20 mA, 12 bit, single-ended
ES3052	EtherCAT Terminal, 2-channel analog input, current, 4...20 mA, 12 bit, single-ended, pluggable wiring