EL3154 | EtherCAT Terminal, 4-channel analog input, current, 4...20 mA, 16 bit, single-ended
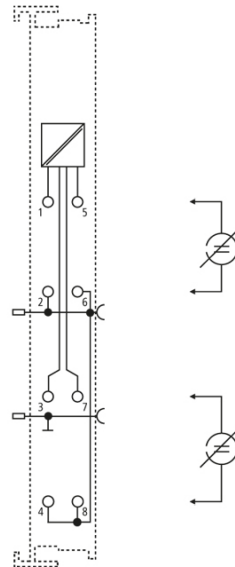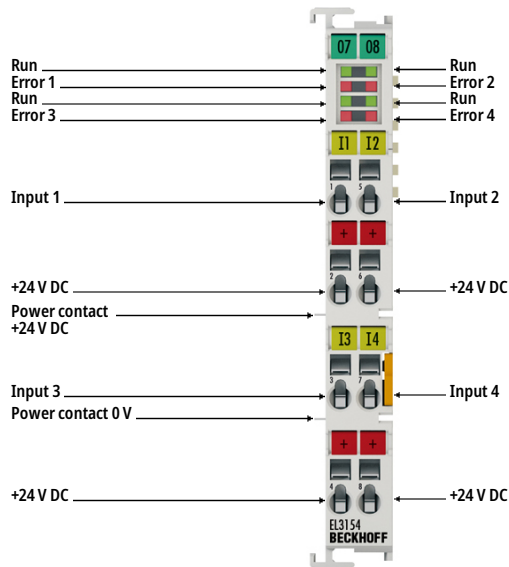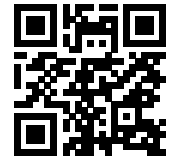

Image similar, may contain optional accessories

Product status: regular delivery

The EL3154 analog input terminal processes signals in the range between 4 and 20 mA. The current is digitized to a resolution of 16 bits and is transmitted (electrically isolated) to the higher-level automation device. The input electronics are independent of the supply voltage of the power contacts. In the EL3154 with four inputs, the 24 V power contact is connected to the terminal in order to enable connection of 2-wire sensors without external supply. The power contacts are connected through. The signal state of the EtherCAT Terminal is indicated by light emitting diodes. The error LEDs indicate an overload condition and a broken wire.

Product information

Technical data

Technical data	EL3154
Number of inputs	4 (single-ended)
Signal current	4...20 mA
Distributed clocks	yes
Internal resistance	typ. 85 Ω + diode voltage
Input filter limit frequency	5 kHz
Dielectric strength	max. 30 V

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Conversion time	~ 100 µs
Resolution	16 bit (incl. sign)
Measurement error/uncertainty	< ±0.3% (relative to full scale value)
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption E-bus	typ. 130 mA
Current consumption power contacts	–
Bit width in the process image	inputs: 16 byte
Configuration	no address or configuration setting required
Special features	standard and compact process image, activatable FIR/IIR filters, limit value monitoring
Weight	approx. 60 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
Pluggable wiring	for all ESxxxx terminals
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, CCC, 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	
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 BZxxxx series	
Wiring	solid conductor (s), flexible conductor (st) and ferrule (f): spring actuation by screwdriver	

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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*: 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	
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm	

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

Ordering information

Ordering information	
EL3154	EtherCAT Terminal, 4-channel analog input, current, 4...20 mA, 16 bit, single-ended
ES3154	EtherCAT Terminal, 4-channel analog input, current, 4...20 mA, 16 bit, single-ended, pluggable wiring

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