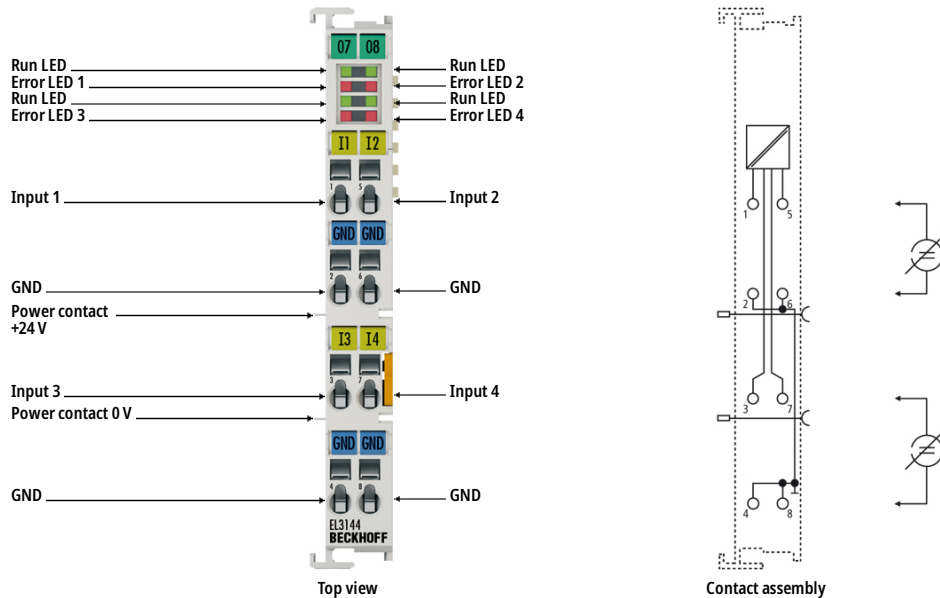


# EL3144 | EtherCAT Terminal, 4-channel analog input, current, 0...20 mA, 16 bit, single-ended



**i** **Product status:** Regular delivery

The EL3144 analog input terminal processes signals in the range between 0 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 EL3144 EtherCAT Terminal features 2-wire conductors for the four single-ended inputs with a common internal ground potential. The power contacts are connected through. The signal state of the EtherCAT Terminal is indicated by light emitting diodes.

## Product information

### Technical Data

Technical data	EL3144, ES3144
Number of inputs	4 (single-ended)
Power supply	via the E-bus
Technology	single-ended
Signal type	single-ended
Signal current	0...20 mA
Oversampling factor	–
Input signal bandwidth	see input filter
Distributed clocks	yes
Distributed clock precision	<< 1 $\mu$ s
Internal resistance	typ. 85 $\Omega$ + diode voltage

Input filter limit frequency	5 kHz
Dielectric strength	max. 30 V
Conversion time	~ 40 µs
Resolution	16 bit (incl. sign)
Measuring error	< ±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: 16 byte
Configuration	no address or configuration setting required
Special features	standard and compact process image, switchable measuring data representation in the EL3142-0010, 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 ESxxx terminals
Approvals/markings	CE, UL, ATEX
Ex marking	II 3 G Ex nA 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 (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver	
Connection cross-section	s*: 0.08...2.5 mm <sup>2</sup> , st*: 0.08...2.5 mm <sup>2</sup> , f*: 0.14...1.5 mm <sup>2</sup>	s*: 0.08...1.5 mm <sup>2</sup> , st*: 0.08...1.5 mm <sup>2</sup> , f*: 0.14...1.5 mm <sup>2</sup>
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 <sub>max</sub> : 10 A	

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

## Ordering Information

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EL3144	EtherCAT Terminal, 4-channel analog input, current, 0...20 mA, 16 bit, single-ended
ES3144	EtherCAT Terminal, 4-channel analog input, current, 0...20 mA, 16 bit, single-ended, pluggable wiring