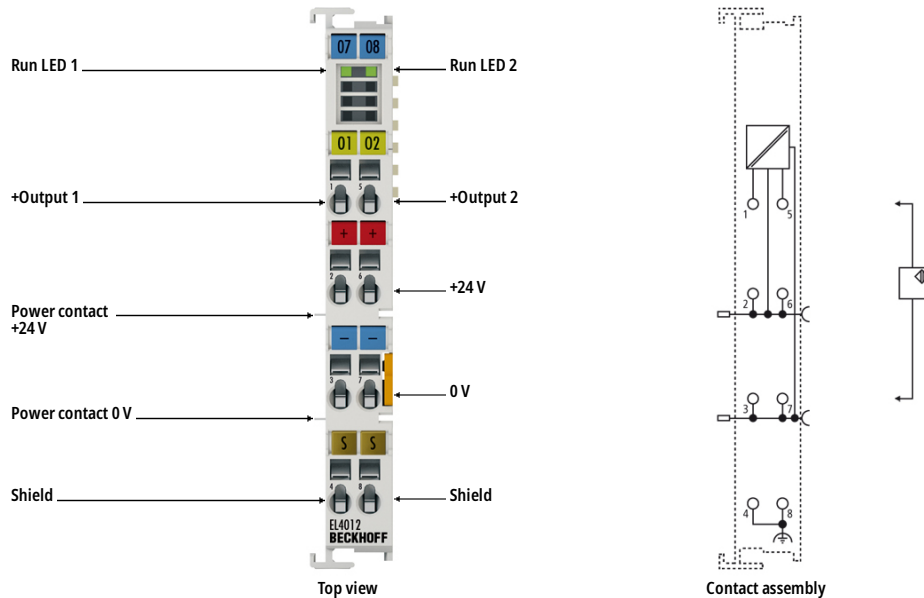
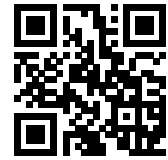


EL4012 | EtherCAT Terminal, 2-channel analog output, current, 0...20 mA, 12 bit



i Product status: Regular delivery

The EL4012 analog output terminal generates analog output signals in the range between 0 and 20 mA. The power is supplied to the process level with a resolution of 12 bits and is electrically isolated. Ground potential for the output channels of an EtherCAT Terminal is common with the 0 V DC supply. The output stages are powered by the 24 V supply. The EL4012 combines two channels in one housing. The EtherCAT Terminal indicates its signal state by means of light emitting diodes.

Product information

Technical data

Technical data	EL4012, ES4012
Connection technology	3-wire, single-ended
Number of outputs	2
Power supply	24 V DC via power contacts
Signal current	0...20 mA
Distributed clocks	yes
Distributed clock precision	<< 1 μ s
Load	< 500 Ω (short-circuit proof)
Output error	< 0.1 % (relative to end value)
Resolution	12 bit
Electrical isolation	500 V (E-bus/signal voltage)

Conversion time	~ 150 µs
Current consumption power contacts	typ. 25 mA
Current consumption E-bus	typ. 140 mA
Bit width in the process image	2 x 16 bit AO output
Special features	Optional watchdog; user-specific output value with ramp; user synchronization can be activated.
Weight	approx. 60 g
Operating/storage temperature	-25...+60 °C/-40...+85 °C
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Relative humidity	95 %, no condensation
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
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 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*: 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

Ordering information	
EL4012	EtherCAT Terminal, 2-channel analog output, current, 0...20 mA, 12 bit
ES4012	EtherCAT Terminal, 2-channel analog output, current, 0...20 mA, 12 bit, pluggable wiring