

EL1904 | EtherCAT Terminal, 4-channel digital input, 24 V DC, TwinSAFE

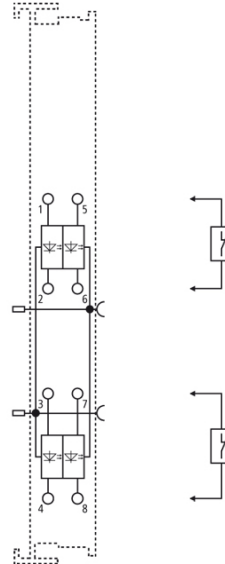
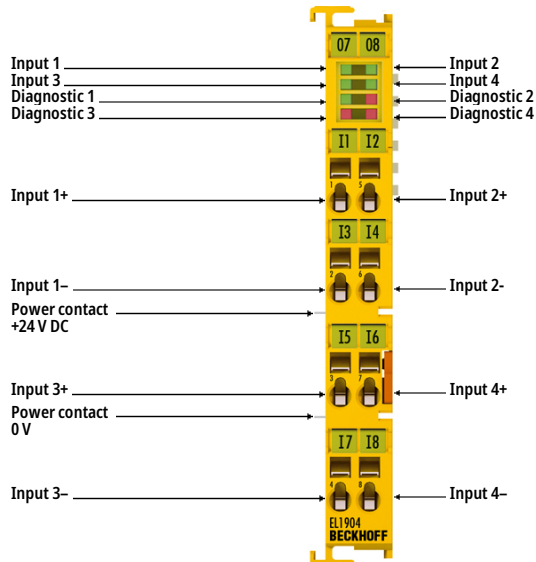


Image similar, may contain optional accessories

i **Product status:** regular delivery

The EL1904 TwinSAFE component is a digital input terminal for sensors with potential-free contacts for 24 V DC. It has four fail-safe inputs. The signals are transmitted via FSoE to a TwinSAFE Logic-capable component and can be used there to evaluate them in terms of safety.

The EL1904 has safety parameters to adapt the functionality specifically to the respective safety-oriented requirements (e.g., 1-channel evaluation vs. 2-channel evaluation, testing of the individual channels).

The safety parameters are not stored directly on the component, but are transmitted to the input terminal via a TwinSAFE Logic-capable component when the safety application is started. This simplifies service procedures, because the component can simply be replaced. The safety-relevant parameters are transferred to the new component when the safety application is restarted.

Special features:

- 4 safe inputs
- cross-circuit detection
- 1-channel vs. 2-channel evaluation directly on the component
- testing of the channels can be activated individually

Product information

Technical data

Technical data	EL1904
Connection technology	1-/2-wire
Number of inputs	4
Protocol	TwinSAFE/Safety over EtherCAT
Response time	typ. 4 ms (read input/write to E-bus)
Fault response time	≤ watchdog time (parameterizable)
Current consumption power contacts	see documentation
Current consumption E-bus	typ. 200 mA
Installation position	horizontal
Safety standard	DIN EN ISO 13849-1:2008 (Cat. 4, PL e) and EN 61508:2010 (SIL 3)
Weight	approx. 50 g
Protection rating	IP20
Ex marking	ATEX: II 3 G Ex ec IIC T4 Gc IECEx: Ex ec IIC T4 Gc

Housing data	EL-12-8pin
Design form	compact terminal housing with signal LEDs
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
Connection cross-section	s*: 0.08...2.5 mm ² , st*: 0.08...2.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG28...14, st*: AWG28...14, f*: AWG26...16
Stripping length	8...9 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