EL1918 | EtherCAT Terminal, 8-channel digital input, 24 V DC, TwinSAFE, TwinSAFE Logic

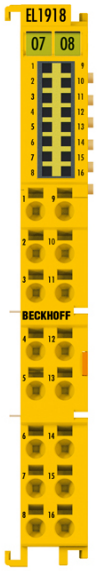

Image similar, may contain optional accessories

Product status: regular delivery

The EL1918 TwinSAFE component is a digital input terminal for sensors with potential-free contacts for 24 V DC. The EtherCAT terminal has eight fail-safe inputs, which are transmitted via FSoE to a TwinSAFE Logic-capable component.

The EL1918 has safety parameters to specifically adapt the functionality to the respective safety requirements. Thus, for example, test pulses can be configured with fine granularity for all eight channels in order to be able to connect as many types of sensors as possible.

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.

A further highlight of the EL1918 is the integration of the functionality of the EL6910 TwinSAFE Logic. The EL1918 can also be used as a safety controller at any time. In the default case, the EL1918 is a simple input terminal, whose input signals are transmitted via FSoE to a TwinSAFE Logic-capable component. It can be used directly as a safety controller in order to process input signals directly in the terminal so as to forward only accumulated information to a TwinSAFE Logic, or a complete safety application can be implemented on the EL1918. The range of functions corresponds to that of the EL6910. The only difference is the limitation of the number of possible safe connections to 128. Apart from that, all the advantages of the new generation of safety controllers can be used (see EL6910 customizing, incremental download, analog value processing, etc.).

Special features EL1918:

- 8 safe inputs
- integrated TwinSAFE Logic (functionality similar to the EL6910)
- up to 128 safe connections

- fine granular configuration of the test pulses of the individual channels

For applications without integrated TwinSAFE Logic, the EL1918-2200 can be used.

Special features EL1918-2200:

- 8 safe inputs
- fine granular configuration of the test pulses of the individual channels
- TwinSAFE Logic not integrated

Product information

Technical data

Technical data	EL1918
Connection technology	1-/2-wire
Specification	link unit between safe input and output signals
Number of inputs	8
Protocol	TwinSAFE/Safety over EtherCAT
Fault response time	≤ watchdog time (parameterizable)
Current consumption power contacts	see documentation
Current consumption E-bus	typ. 165 mA
Installation position	horizontal
Safety standard	EN ISO 13849-1:2015 (Cat. 4, PL e) and EN 61508:2010 (SIL 3)
Weight	approx. 50 g
Protection rating	IP20
Ex marking	ATEX: II 3G 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-12-16pin
Design form	HD (High Density) 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 conductors (s): direct plug-in technique; fine-stranded conductors (st) and ferrule (f): spring actuation by screwdriver

Connection cross-section	s*: 0.08...1.5 mm², st*: 0.25...1.5 mm², f*: 0.14...0.75 mm²
Connection cross-section AWG	s*: AWG28...16, st*: AWG22...16, f*: AWG26...19
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

Ordering information

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EL1918	EtherCAT Terminal, 8-channel digital input, 24 V DC, TwinSAFE, TwinSAFE Logic
EL1918-2200	EtherCAT Terminal, 8-channel digital input, 24 V DC, TwinSAFE