EL3692 | EtherCAT Terminal, 2-channel analog input, resistance, 100 mΩ...10 MΩ, 24 bit

Run LED
Status LED1
Error LED 1

+R1

+RL1

-R1

-RL1

Status LED 2
Error LED 2

+R2

+RL2

-R2

-RL2

Top view

Contact assembly

+R

+RL

-R

-RL
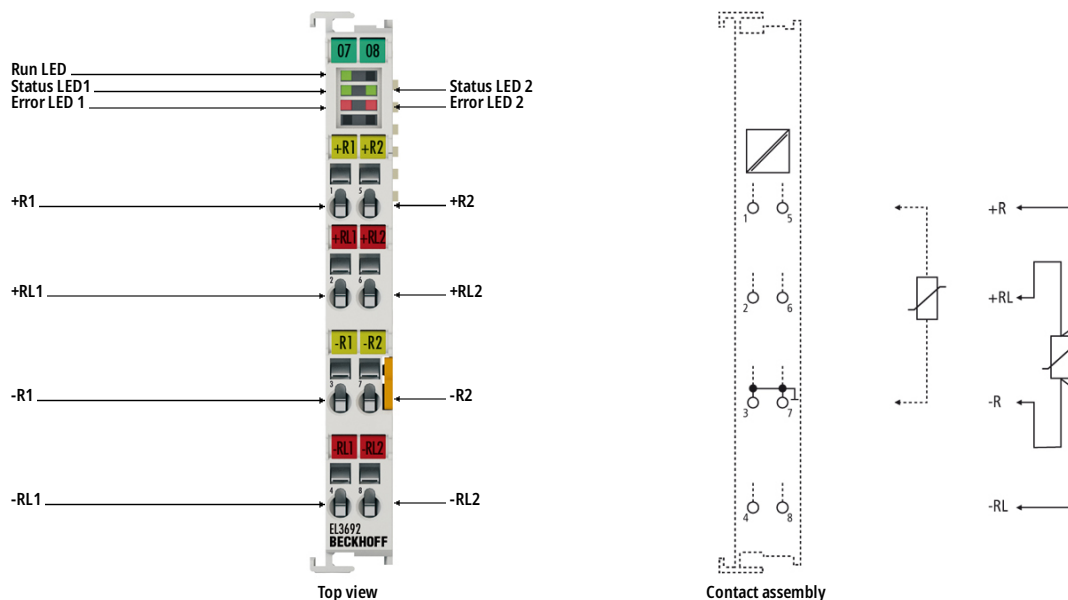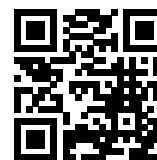
Product status: Regular delivery

The analog EL3692 input terminal enables direct resistance measurement in nine measuringe ranges from 0...100 mΩ to 0...10 MΩ. The circuitry of the EtherCAT Terminal enables measurement in 2- and 4-wire versions. The EL3692 offers measuring range selection, either automatic or through the controller. Due to the galvanic isolation of 1500 V between the field side and the E-bus, in single-channel mode measurements can be carried out at live points (within the permissible range). The EtherCAT Terminal indicates its state through LEDs. Malfunctions such as broken wires are indicated by error LEDs.

Product information

Technical Data

Technical data	EL3692
Number of inputs	2
Power supply	via the E-bus
Technology	2- or 4-wire, resistance measurement
Signal type	single-ended
Distributed clocks	–
Feed voltage potentiometer	–
Internal resistance	> 100 MΩ
Input filter limit frequency	100 Hz
Wiring fail indication	yes

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Conversion time	typ. 10...400 ms, dependent on measuring range and settings
Measuring range	100 mΩ, 1 Ω, 10 Ω, 100 Ω, 1 kΩ, 10 kΩ, 100 kΩ, 1 MΩ, 10 MΩ
Range switching	automatic or through control
Resolution	24 bit
Measuring error	< ±0.5 % (relative to the respective full scale value with 4-wire connection)
Electrical isolation	1500 V (E-bus/field potential)
Current consumption power contacts	–
Current consumption E-bus	typ. 220 mA
Configuration	via the controller
Special features	automatic range selection, pulse and continuous measurement
Weight	approx. 55 g
Operating/storage temperature	0...+55 °C/-25...+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
Approvals/markings	CE, UL, ATEX
Ex marking	II 3 G Ex nA IIC T4 Gc

Housing data	EL-12-8pin
Design form	compact terminal housing with signal LEDs
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
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16
Stripping length	8...9 mm
Current load power contacts	I$_{max}$: 10 A

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

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