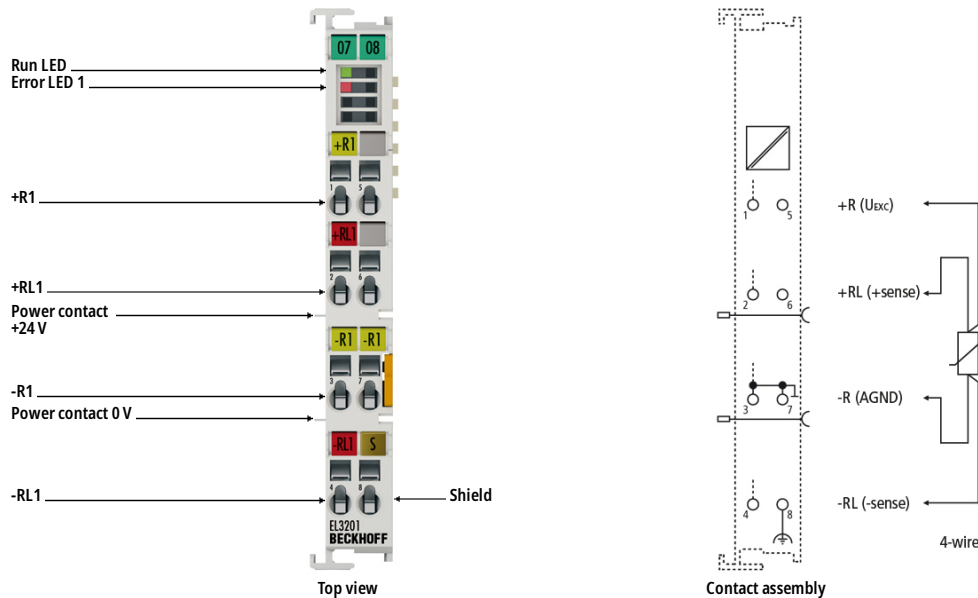
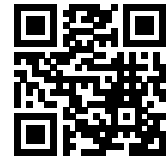


# EL3201 | EtherCAT Terminal, 1-channel analog input, temperature, RTD (Pt100), 16 bit



**i Product status:** Regular delivery

The EL3201 analog input terminal facilitates the direct connection of a resistance sensor. The measured resistance value can either be output directly in ohms or transformed into a temperature. If the temperature at the measuring point is of interest, the conversion from resistance to temperature can be carried out in the terminal according to various sensor characteristics (Pt100, Pt1000, NI120, NI1000, KTY types, etc.). The EL3201 can operate sensors in 3- and 4-wire technology, for the 2-wire connection an external bridge is necessary. The EtherCAT Terminals indicate their measurement capability by means of light emitting diodes and status bits in the EtherCAT process image.

## Product information

### Technical Data

Technical data	EL3201, ES3201
Number of inputs	1
Power supply	via the E-bus
Technology	2-, 3-, 4-wire
Distributed clocks	-
Input filter limit frequency	typ. 1 kHz
Sensor types	Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni1000, resistance measurement (e.g. potentiometer, 10 Ω...1/4 kΩ), KTY sensors (types see documentation)
Connection method	2-, 3-, 4-wire (default: 2-wire)
Resolution	0.1 °C per digit

Conversion time	approx. 24 ms default setting, 4...500 ms configurable
Temperature range	-200...+850 °C (Pt sensors); -60...+250 °C (Ni sensors)
Measuring current	< 0.5 mA (load-dependent)
Measuring error	< ±0.5 °C for Pt sensors
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 190 mA
Bit width in the process image	1 x 32 bit RTD input
Special features	integrated digital filter, limit value monitoring, variable connection technology
Weight	approx. 60 g
Operating/storage temperature	-25...+60 °C/-40...+85 °C
Relative humidity	95 %, no condensation
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
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 <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

Special terminals	
EL3201	EtherCAT Terminal, 1-channel analog input, temperature, RTD (Pt100), 16 bit
ES3201	EtherCAT Terminal, 1-channel analog input, temperature, RTD (Pt100), 16 bit, pluggable wiring

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