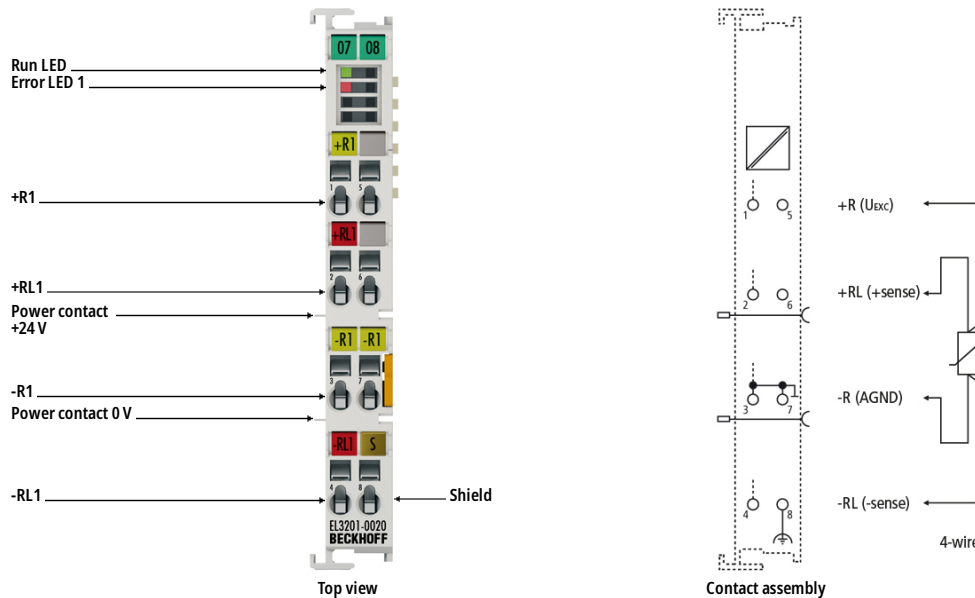
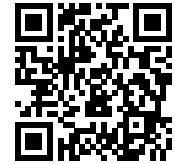


EL3201-0020 | EtherCAT Terminal, 1-channel analog input, temperature, RTD (Pt100), 16 bit, high-precision, factory calibrated



i Product status: Regular delivery

The EL3201-0020 is the factory calibrated version of the EL3201-0010. The EL3201-0020 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 EL3201-00x0 can operate sensors in 4-wire technology, external bridges must be set for the 2- and 3-wire connection. This terminal must be operated using 4-wire technology for maximum accuracy. The EtherCAT Terminals indicate their measurement capability by means of light emitting diodes and status bits in the EtherCAT process image.

The EL3201-0020 is also available without calibration (EL3201-0010) or optionally with a DAkkS or ISO 17025 certificate (EL3201-0030) from an accredited service provider in cooperation with Beckhoff. The desired calibration certificate can be downloaded [here](#) using the unique identification number.

Product information

Technical Data

Technical data	EL3201-0020
Number of inputs	1
Power supply	via the E-bus
Technology	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	4-wire
Measuring range	-200...+850 °C (Pt sensors); -60...+250 °C (Ni sensors); -200...+320 °C (high-precision)
Resolution	0.01 °C per digit
Conversion time	approx. 24 ms default setting, 4...500 ms configurable
Temperature range	-200...+320 °C (Pt sensors)
Measuring current	< 0.5 mA (load-dependent)
Measuring error	< ±0.1 °C at 40 °C ambient temperature, 4-wire connection, Pt100 sensors (measuring range: -200...+320 °C) and 50 Hz filter
Calibration certificate (analog)	factory calibrated
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, with calibration certificate
Weight	approx. 60 g
Operating/storage temperature	0...+55 °C/-25...+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
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