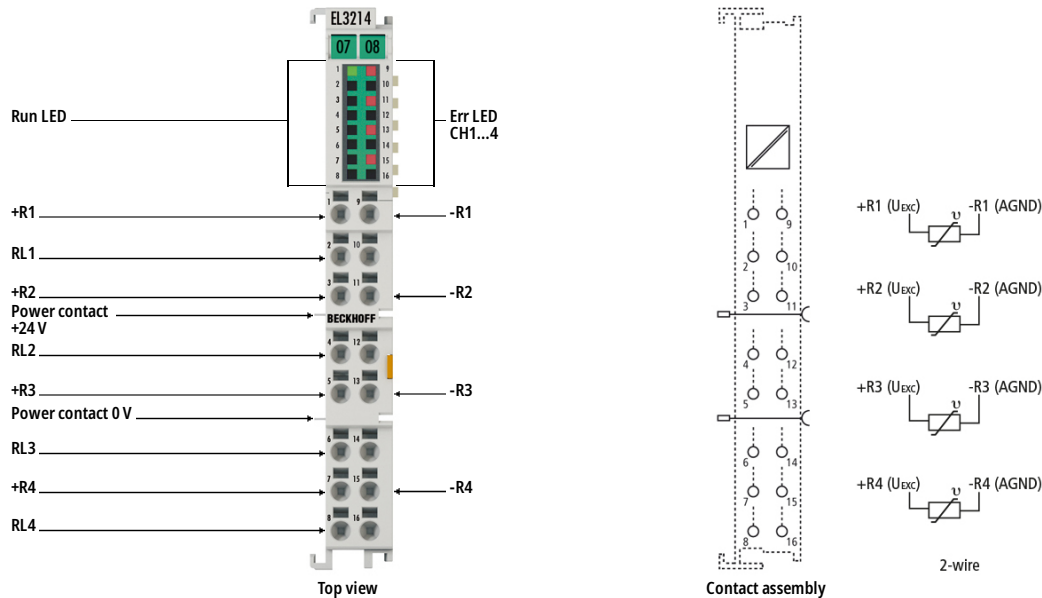
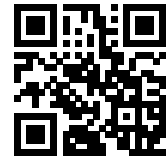


EL3214 | EtherCAT Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit, 3-wire connection



i Product status: Regular delivery

The EL3214 analog input terminal facilitates the direct connection of four resistance sensors using 3-wire technology over a width of 12 mm (high-density housing). 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 EL3214 can operate sensors using 2-wire and 3-wire technology. 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	EL3214
Number of inputs	4
Power supply	via the E-bus
Technology	2-/3-wire
Signal type	single-ended
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- or 3-wire (default: 3-wire)
Conversion time	approx. 170 ms default setting
Measuring current	< 0.5 mA (load-dependent)
Measuring range	-200...+850 °C (Pt sensors); -60...+250 °C (Ni sensors)
Temperature range	-200...+850 °C (Pt sensors); -60...+250 °C (Ni sensors)
Resolution	0.1 °C per digit
Measuring error	< ±0.5 °C for Pt sensors, 4 x 3-wire connection
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 140 mA
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
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, DNV GL

Housing data	EL-12-16pin
Design form	HD (High Density) 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 conductors (e): direct plug-in technique; fine-stranded conductors (f) and ferrule (a): spring actuation by screwdriver
Connection cross-section	s*: 0.08...1.5 mm ² , st*: 0.25...1.5 mm ² , f*: 0.14...0.75 mm ²
Connection cross-section AWG	s*: AWG 28...16, st*: AWG 22...16, f*: AWG 26...19
Stripping length	8...9 mm
Current load power contacts	I _{max} : 10 A

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