

EL3204 | EtherCAT Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit

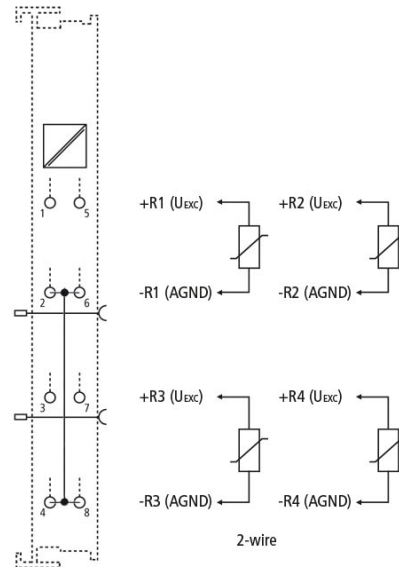
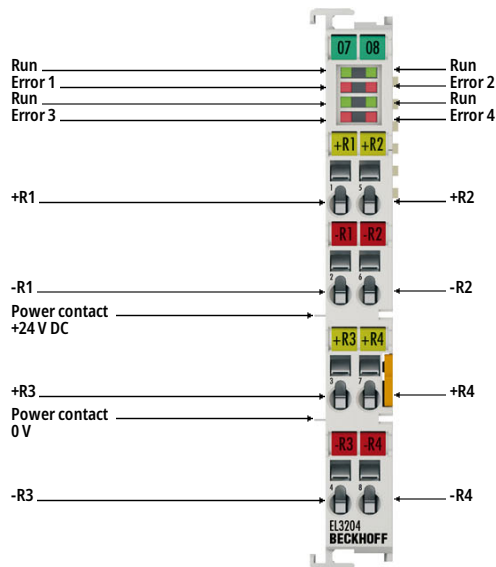
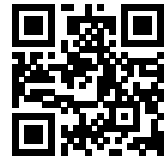


Image similar, may contain optional accessories

i **Product status:** regular delivery

The EL3204 analog input terminal facilitates the direct connection of four resistance sensors. 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 EL3204 can operate sensors using 2-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	EL3204
Number of inputs	4
Power supply	via the E-bus
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...4 kΩ), KTY sensors (types see documentation)
Connection method	2-wire

Conversion time	approx. 85 ms default setting, 2...800 ms configurable
Measuring current	< 0.5 mA (load-dependent)
Temperature range	-200...+850°C (Pt sensors); -60...+250°C (Ni sensors)
Resolution	0.1°C per digit
Measurement error/uncertainty	< ±0.5°C for Pt sensors
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption E-bus	typ. 190 mA
Current consumption power contacts	–
Bit width in the process image	4 x 32 bit RTD input
Special features	integrated digital filter, limit value monitoring
Weight	approx. 60 g
Operating temperature	-25...+60°C
Storage temperature	-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
Plug-in wiring level	for all ESxxx terminals
Protect. rating/installation pos.	IP20/variable
Approvals/markings	CE, CCC, UL, ATEX, IECEx, cFMus
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-12-8pin	ES-12-8pin
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
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 BZxxx series	
Wiring	solid conductor (s), flexible conductor (st) and ferrule (f): 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	s*: 0.08...1.5 mm ² , st*: 0.08...1.5 mm ² , f*: 0.14...1.5 mm ²
Connection cross-section AWG	s*: AWG28...14, st*: AWG28...14, f*: AWG26...16	s*: AWG28...16, st*: AWG28...16, f*: AWG26...16
Stripping length	8...9 mm	9...10 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

Ordering information	
EL3204	EtherCAT Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit
ES3204	EtherCAT Terminal, 4-channel analog input, temperature, RTD (Pt100), 16 bit, pluggable wiring level