



## EL3204-0200 | 4-channel universal input terminal for RTD up to 240 k $\Omega$ , NTC 20 k, 16 bit

The analog EL3204-0200 input terminal enables direct connection of four resistance sensors up to 240 k $\Omega$ , so that the usable measuring range is significantly larger compared with the EL3204. The EtherCAT Terminal circuit can operate sensors using the 2-wire technique. The resistance values are converted (linearisation) in the terminal either based on preset characteristic curves, conversion formulas with specific material parameters (e.g. according to IEC 60751, Steinhart-Hart equation, B-parameter equation), or a freely programmable conversion table. Sensor malfunctions such as broken wires are indicated by error LEDs.

Technical data	EL3204-0200
Number of inputs	4
Power supply	via the E-bus
Distributed clocks	–
Sensor types	Ni/PT, any RTD in the range of 100 $\Omega$ ...240 k $\Omega$ , calculation possible on the basis of a table or material constant, resistance measurement
Connection method	2-wire
Conversion time	approx. 24 ms default setting, 4...500 ms configurable
Measuring current	< 0.03 mA typ.
Resolution	0.1 $^{\circ}$ C per digit
Measuring error	< $\pm$ 0.3 % relative to full scale value (6 k $\Omega$ , 65 k $\Omega$ , 240 k $\Omega$ )
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 150 mA
Bit width in the process image	4 x 32 bit RTD input
Special features	temperature calculation on the basis of Steinhart-Hart, B parameters, IEC 60751, free table, predefined sensors
Weight	approx. 60 g
Operating/storage temperature	0...+55 $^{\circ}$ C/-25...+85 $^{\circ}$ 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. class/installation pos.	IP 20/variable
Approvals	CE, UL, Ex