



EL3201 | 1-channel input terminal PT100 (RTD) for 2-, 3- or 4-wire connection

The EL3201 analog input terminal allows resistance sensors to be connected directly. The EtherCAT Terminal circuitry can operate 2-, 3- and 4-wire sensors (also in the 2-channel version EL3202-0010). A microprocessor handles linearisation across the whole temperature range, which is freely selectable. The EtherCAT Terminal's standard settings are: resolution 0.1 °C in the temperature range of PT100 sensors in 3-wire connection. The EtherCAT Terminals indicate their signal state by means of light emitting diodes. Sensor malfunctions such as broken wires are indicated by error LEDs.

Technical data	EL3201 ES3201
Number of inputs	1
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...1.2/4 kΩ), KTY sensors (types see documentation)
Connection method	2-, 3-, 4-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
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
Pluggable wiring	for all ESxxxx terminals
Approvals	CE, UL, Ex

Special terminals	
EL3201-0010	1-channel analog input terminal, PT100 (RTD), 16 bit, high-precision
EL3201-0020	1-channel analog input terminal, PT100 (RTD), 16 bit, high-precision, with calibration certificate