

EL3001 | 1-channel analog input terminal -10...+10 V, single-ended, 12 bit

The EL3001 analog input terminal processes signals in the range between -10 and +10 V. The voltage is digitised to a resolution of 12 bits, and is transmitted, electrically isolated, to the higher-level automation device. The input channels of the EtherCAT Terminal are single-ended inputs with a common, internal ground potential. The EL3001 is characterised by its fine granularity and electrical isolation. The signal state of the EtherCAT Terminals is indicated by light emitting diodes.

Technical data	EL3001 ES3001
Number of inputs	1 (single-ended)
Power supply	via the E-bus
Technology	single-ended
Signal voltage	-10+10 V
Distributed clocks	-
Internal resistance	> 130 kΩ
Input filter limit frequency	1 kHz
Dielectric strength	max. 30 V
Conversion time	0.625 ms default setting, configurable
Resolution	12 bit (16 bit presentation, incl. sign)
Measuring error	$< \pm 0.3$ % (relative to full scale value)
Electrical isolation	500 V (E-bus/field potential)
Current consumption power contacts	-
Current consumption E-bus	typ. 130 mA
Bit width in the process image	inputs: 4 byte
Configuration	no address or configuration setting required
Special features	standard and compact process image, switchable measuring data representation, activatable FIR/IIR filters, limit value monitoring, overload display in the process data
Weight	approx. 70 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