



EL3101, EL3102 | 1-, 2-channel analog input terminals -10...+10 V, differential input, 16 bit

The EL3101 and EL3102 analog input terminals handle signals in the range between -10 and +10 V. The voltage is digitised to a resolution of 16 bits, and is transmitted, electrically isolated, to the higher-level automation device. The input channels of the EtherCAT Terminals have differential inputs and possess a common, internal ground potential. The signal state of the EtherCAT Terminals is indicated by light emitting diodes.

Technical data	EL3101 ES3101	EL3102 ES3102
Number of inputs	1 (differential)	2 (differential)
Power supply	via the E-bus	
Technology	differential input	
Signal voltage	-10...+10 V	
Oversampling factor	–	
Distributed clocks	yes	
Distributed clock precision	<< 1 µs	
Internal resistance	> 200 kΩ	
Input filter limit frequency	5 kHz	
Common-mode voltage U_{CM}	35 V max. (relative to the internal GND)	
Conversion time	~ 40 µs	~ 60 µs (fast mode ~ 40 µs)
Input signal bandwidth	–	
Resolution	16 bit (incl. sign)	
Measuring error	< ±0.3 % (relative to full scale value)	
Electrical isolation	500 V (E-bus/signal voltage)	
Current consumption power contacts	–	
Current consumption E-bus	typ. 130 mA	typ. 170 mA
Bit width in the process image	inputs: 4 byte	inputs: 8 byte
Special features	standard and compact process image, switchable measuring data representation, activatable FIR/IIR filters, limit value monitoring	
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 ESxxx terminals	