



EL3024 | 4-channel analog input terminal 4...20 mA, differential input, 12 bit

The EL3024 analog input terminal handles signals in the range from 4 to 20 mA. The current is digitised to a resolution of 12 bits and is transmitted, in an electrically isolated form, to the higher-level automation device. The input channels of the EtherCAT Terminal have differential inputs and possess a common, internal ground potential. The EL3024 combines four channels in one housing. An open lead or overload condition are detected and the terminal status is relayed to the controller via the E-bus. The EtherCAT Terminal indicates its signal state by means of light emitting diodes. The error LEDs indicate an overload condition and a broken wire.

Technical data	EL3024 ES3024
Number of inputs	4 (differential)
Power supply	via the E-bus
Technology	differential input
Signal current	4...20 mA
Distributed clocks	–
Internal resistance	85 Ω typ. + diode voltage
Input filter limit frequency	1 kHz
Common-mode voltage U_{CM}	10 V max.
Conversion time	0.625 ms default setting, configurable
Resolution	12 bit (16 bit presentation, incl. sign)
Measuring error	< ±0.3 % (relative to full scale value)
Surge voltage resistance	35 V DC
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	–
Current consumption E-bus	typ. 130 mA
Bit width in the process image	inputs: 16 byte
Configuration	no address or configuration setting
Special features	standard and compact process image, 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 ESxxxx terminals
Approvals	CE, UL, Ex