



EL3022 | 2-channel analog input terminal 4...20 mA, differential input, 12 bit

The EL3022 analog input terminal processes signals in the range between 4 and 20 mA. The current 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 have differential inputs and possess a common, internal ground potential. The EL3022 combines two channels in one housing. An open lead or overload condition are detected. 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	EL3022 ES3022
Number of inputs	2 (differential)
Power supply	via the E-bus
Technology	differential input
Signal current	4...20 mA
Distributed clocks	—
Internal resistance	typ. 85 Ω + diode voltage
Input filter limit frequency	1 kHz
Common-mode voltage U_{CM}	max. 10 V
Conversion time	0.625 ms default setting, configurable, multiplex
Resolution	12 bit (16 bit presentation incl. sign)
Measuring error	< ± 0.3 % (relative to full scale value)
Surge voltage resistance	max. 35 V
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: 8 byte
Special features	standard and compact process image, activatable FIR/IIR filters, limit value monitoring
Weight	approx. 55 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/markings	CE, UL, ATEX
Ex-Marking	II 3 G Ex nA IIC T4 Gc