



## EL1259 | 8-channel digital input + 8-channel digital output with multi-timestamping

The 16-channel EL1259 digital EtherCAT Terminal combines the function of the EL1258 – eight multi-timestamping inputs – with those of the EL2258 – eight multi-timestamping outputs. The high channel density in conjunction with timestamping of the signals enables fast, efficient processes through optimised sensor and actuator control. The EL1259 is also synchronised with other devices through the distributed clocks system, so that events in the whole system can be measured with a uniform timebase. The combination of DC-switched inputs and outputs within one terminal can be used for local switching tasks.

Technical data	EL1259
Connection technology	1-wire
Number of channels	8 inputs + 8 outputs
Nominal voltage	24 V DC (-15 %/+20 %)
"0" signal voltage	-3...+5 V (IEC 61131-2, type 1/3)
"1" signal voltage	11...30 V (IEC 61131-2, type 1/3)
Input current	typ. 3 mA (EN 61131-2, type 1/3)
Input filter	typ. < 1 $\mu$ s
Internal sampling/execution	< 10...40 $\mu$ s, corresponds to 100...25 k detectable edges/s, dependent on configuration
Distributed clock precision	<< 1 $\mu$ s
Distributed clocks	yes
Load type	ohmic, inductive, lamp load
Max. output current	0.5 A (short-circuit-proof) per channel
Reverse voltage protection	yes
Breaking energy	< 150 mJ/channel
Switching times	typ. $T_{ON}$ : < 1 $\mu$ s, typ. $T_{OFF}$ : < 1 $\mu$ s
Current consumption power contacts	typ. 30 mA + load
Current consumption E-bus	typ. 130 mA
Electrical isolation	500 V (E-bus/field potential)
Configuration	no address or configuration setting
Conductor types	solid wire, stranded wire and ferrule
Conductor connection	solid wire conductors: direct plug-in technique; stranded wire conductors and ferrules: spring actuation by screwdriver
Rated cross-section	solid wire: 0.08...1.5 mm <sup>2</sup> ; stranded wire: 0.25...1.5 mm <sup>2</sup> ; ferrule: 0.14...0.75 mm <sup>2</sup>
Special features	multi-timestamping, auto activation
Weight	approx. 55 g
Operating/storage temperature	0...+55 °C/-25...+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 (see documentation)
Approvals	CE, UL