



EL1859 | HD EtherCAT Terminal, 8-channel digital input + 8-channel digital output 24 V DC

The digital EL1859 EtherCAT Terminal combines eight digital inputs and eight digital outputs in one device. The inputs have a filter of 3.0 ms. The outputs process load currents up to 0.5 A, are short-circuit proof and protected against polarity reversal. The signal states are displayed by LEDs.

The reference ground for all inputs is the 0 V power contact, the outputs are fed via the 24 V power contact. The conductors can be connected without tools in the case of solid wires using a direct plug-in technique.

The HD EtherCAT Terminals (High Density) with increased packing density feature 16 connection points in the housing of a 12 mm terminal block.

Technical data	EL1859
Connection technology	1-wire
Specification	EN 61131-2, type 1/3
Number of channels	8 inputs + 8 outputs
Nominal voltage	24 V DC (-15 %/+20 %)
"0" signal voltage	-3...+5 V (EN 61131-2, type 1/3)
"1" signal voltage	11...30 V (EN 61131-2, type 3)
Input current	typ. 3 mA (EN 61131-2, type 3)
Input filter	typ. 3.0 ms
Distributed clocks	–
Load type	ohmic, inductive, lamp load
Max. output current	0.5 A per channel
Reverse voltage protection	yes
Breaking energy	< 150 mJ/channel
Switching times	typ. T _{ON} : 60 µs, typ. T _{OFF} : 300 µs
Current consumption power contacts	typ. 15 mA + load
Current consumption E-bus	typ. 130 mA
Electrical isolation	500 V (E-bus/field potential)
Bit width in the process image	8 inputs + 8 outputs
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 ² ; stranded wire: 0.25...1.5 mm ² ; ferrule: 0.14...0.75 mm ²
Special features	combi EtherCAT Terminal, 8 x output 24 V DC, I _{max} = 0.5 A, load type: ohmic, inductive, lamp load, reverse voltage protection
Weight	approx. 65 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/markings	CE, UL, ATEX
Ex marking	II 3 G Ex nA IIC T4 Gc

Accessories	
Marking and coding	printed and unprinted contact labels, coding pins and sockets, slide-in label covers
ZK2000-2200-0xxx	M8, socket, straight, female, 3-pin – open end
ZK2020-3200-0xxx	M8, socket, straight, female, 4-pin – open end
ZK2000-6200-0xxx	M12, socket, straight, female, 4-pin, A-coded – open end
ZK2000-5200-0xxx	M12, socket, straight, female, 5-pin, A-coded – open end, 5-wire
Cordsets	cordsets and connectors