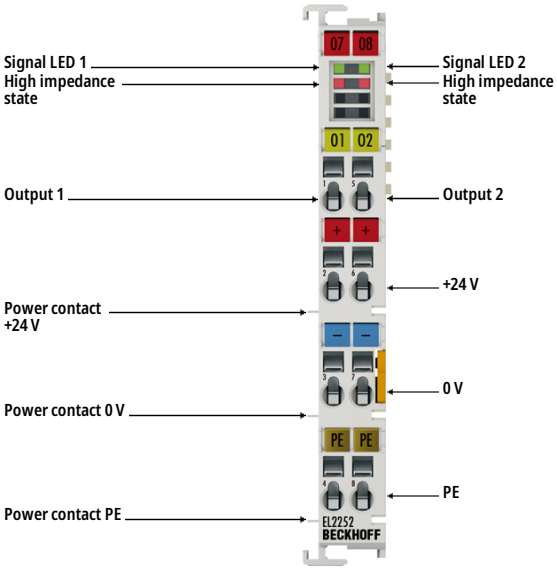
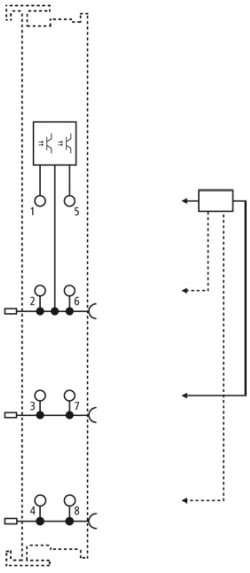
EL2252 | EtherCAT Terminal, 2-channel digital output, 24 V DC, 0.5 A, timestamp



Top view



Contact assembly

Product status: Regular delivery

The EL2252 digital output terminal connects the binary control output signals at the process level with electrical isolation. The outputs of the EtherCAT Terminal are switched with high precision to match the transferred timestamp, which has a resolution of 10 ns. This technology enables output switching times to be specified precisely across the system. The distributed clocks are used for reference. In conjunction with the EL1252 (digital input terminal with time stamp), the EL2252 enables responses with equidistant time intervals, largely independent of the bus cycle time. Each output can be switched to high resistance individually.

Special features:

- push-pull output with tristate
- high-impedance output switching option
- synchronized operation through distributed clocks XFC technology possible
- support of XFC technology timestamp

Product information

Technical Data

Technical data	EL2252, ES2252
Connection technology	4-wire
Number of outputs	2
Nominal voltage	24 V DC (-15 %/+20 %)
Load type	ohmic, inductive, lamp load

Precision of timestamp in the terminal	10 ns
Resolution timestamp	1 ns
Distributed clocks	yes
Distributed clock precision	<< 1 µs
Output delay through 24 V power section	typ. < 1 µs
Max. output current	0.5 A (short-circuit proof) per channel
Output stage	push-pull
Short-circuit current	typ. 4 A/150 µs
Reverse voltage protection	yes
Current limitation	typ. 1.5 A
Breaking energy	< 150 mJ/channel
Switching times	typ. TON: < 1 µs, typ. TOFF: < 1 µs
Current consumption E-bus	typ. 130 mA
Electrical isolation	500 V (E-bus/field potential)
Current consumption power contacts	typ. 30 mA + load
Bit width in the process image	8 bit output (ch. 1 + ch. 2), 9 byte timestamp
Special features	Timestamping, outputs can be connected in high-resistance mode, short-circuit proof.
Weight	approx. 60 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. rating/installation pos.	IP20/variable
Pluggable wiring	for all ESxxxx terminals
Approvals/markings	CE, UL, ATEX
Ex marking	II 3 G Ex nA IIC T4 Gc

Housing data	**EL-12-8pin**	**ES-12-8pin**
Design form	compact terminal housing with signal LEDs	terminal housing with pluggable wiring level
Material	polycarbonate	
Dimensions (W x H x D)	12 mm x 100 mm x 68 mm	
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock	
Side by side mounting by means of	double slot and key connection	
Marking	labeling of the BZxxx series	
Wiring	solid conductor (e), flexible conductor (f) and ferrule (a): spring actuation by screwdriver	

Connection cross-section	s*: 0.08...2.5 mm², st*: 0.08...2.5 mm², f*: 0.14...1.5 mm²	s*: 0.08...1.5 mm², st*: 0.08...1.5 mm², f*: 0.14...1.5 mm²
Connection cross-section AWG	s*: AWG 28...14, st*: AWG 28...14, f*: AWG 26...16	s*: AWG 28...16, st*: AWG 28...16, f*: AWG 26...16
Stripping length	8...9 mm	9...10 mm
Current load power contacts	I_{max}: 10 A	

*s: solid wire; st: stranded wire; f: with ferrule

Ordering Information

Ordering information	
EL2252	EtherCAT Terminal, 2-channel digital output, 24 V DC, 0.5 A, timestamp
ES2252	EtherCAT Terminal, 2-channel digital output, 24 V DC, 0.5 A, timestamp, pluggable wiring