# EL2809 | EtherCAT Terminal, 16-channel digital output, 24 V DC, 0.5 A
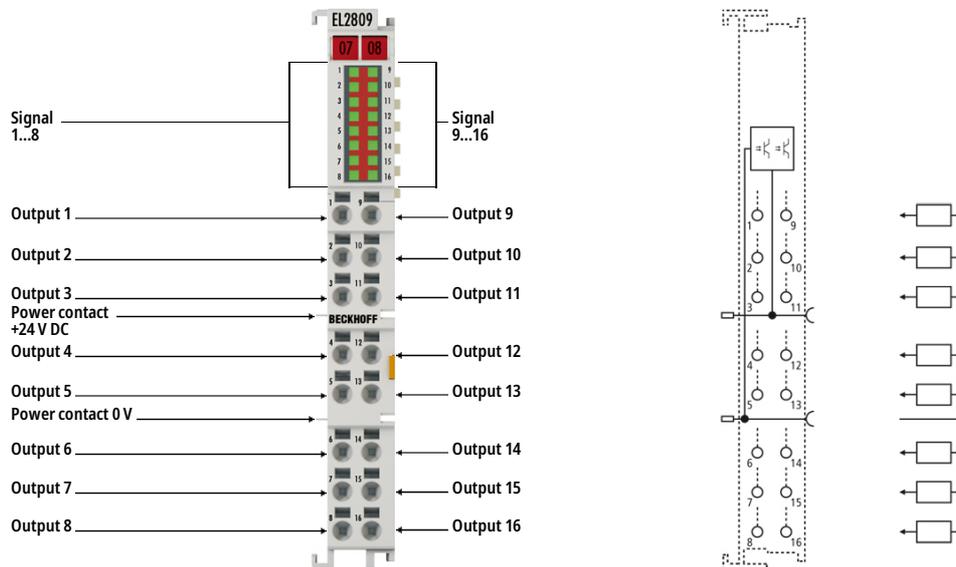


Signal 1...8

Signal 9...16

Output 1 — Output 9
Output 2 — Output 10
Output 3 — Output 11
Power contact +24 V DC
Output 4 — Output 12
Output 5 — Output 13
Power contact 0 V
Output 6 — Output 14
Output 7 — Output 15
Output 8 — Output 16

ⓘ Image similar, may contain optional accessories

ℹ **Product status:** regular delivery

The EL2809 digital output terminal connects the binary 24 V DC control signals from the automation device on to the actuators at the process level with electrical isolation. The EtherCAT Terminal has 16 channels, whose signal states are indicated by LEDs. The power contacts are connected through. The connection technology is particularly suitable for single-ended inputs. All components have to use the same reference point as the EL2809. In the EL2809 the outputs are supplied via the 24 V DC power contact.

Special features:

- Connection of different load types possible (ohmic, inductive, lamp load)
- Max. output current 0.5 A per channel
- Overload and short-circuit proof outputs and reverse polarity protection
- Tool-free connection by direct plug-in technology for solid wire conductors
- Space-saving use in the control cabinet
- Direct connection of multi-channel actuators in 1-wire connection technology in the smallest space
- Increased packing density with 16 connection points in the housing of a 12 mm terminal block

## Product information

### Technical data

| Technical data | EL2809 |
|---|---|
| Connection technology | 1-wire |

**BECKHOFF** New Automation Technology

| | |
|---|---|
| Number of outputs | 16 |
| Nominal voltage | 24 V DC (-15%/+20%) |
| Load type | ohmic, inductive, lamp load |
| Distributed clocks | – |
| Max. output current | 0.5 A (short-circuit proof) per channel |
| Short-circuit current | typ. < 2 A |
| Reverse voltage protection | yes |
| Breaking energy | < 150 mJ/channel |
| Switching times | typ. $T_{ON}$: 60 μs, typ. $T_{OFF}$: 300 μs |
| Current consumption E-bus | typ. 140 mA |
| Current consumption power contacts | typ. 35 mA + load |
| Bit width in the process image | 16 outputs |
| Configuration | no address or configuration setting |
| Electrical isolation | 500 V (E-bus/field potential) |
| Weight | approx. 70 g |
| Operating temperature | -25...+60°C |
| Storage temperature | -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. rating/installation pos. | IP20/variable |
| Approvals/markings | CE, CCC, UL, ATEX, IECEx, DNV GL, cFMus |
| Ex marking | ATEX:<br>II 3 G Ex ec IIC T4 Gc<br>IECEx:<br>Ex ec IIC T4 Gc<br>cFMus:<br>Class I, Division 2, Groups A, B, C, D<br>Class I, Zone 2, AEx ec IIC T4 Gc |

| Housing data | EL-12-16pin |
|---|---|
| Design form | HD (High Density) housing with signal LEDs |
| 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 conductors (s): direct plug-in technique; fine-stranded conductors (st) and ferrule (f): spring actuation by screwdriver |
| **Connection cross-section** | s*: 0.08...1.5 mm$^2$, st*: 0.25...1.5 mm$^2$, f*: 0.14...0.75 mm$^2$ |
| **Connection cross-section AWG** | s*: AWG28...16, st*: AWG22...16, f*: AWG26...19 |
| **Stripping length** | 8...9 mm |
| **Current load power contacts** | $I_{max}$: 10 A |

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

**BECKHOFF** New Automation Technology