

# EL2024 | EtherCAT Terminal, 4-channel digital output, 24 V DC, 2 A

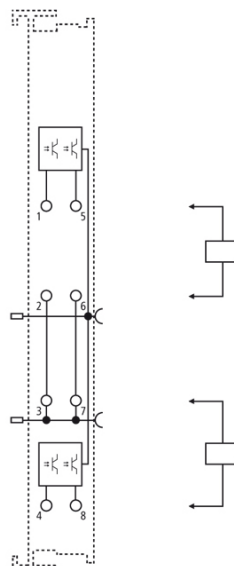
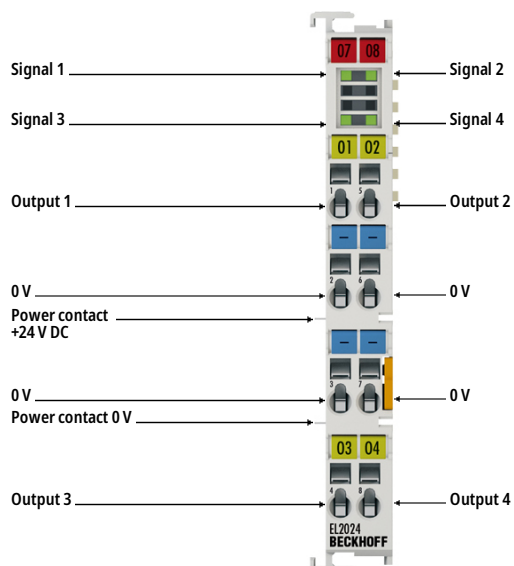


Image similar, may contain optional accessories

**i** **Product status:** regular delivery

The EL2024 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 contains four channels whose signal state is indicated by LEDs. Direct connection of four 2-wire actuators is possible because the terminal has four ground connection points.

Special features:

- Connection of different load types possible (ohmic, inductive, lamp load)
- Max. output current 2 A per channel
- Short-circuit-proof outputs and reverse polarity protection

## Product information

### Technical data

| Technical data        | EL2024                      |
|-----------------------|-----------------------------|
| Connection technology | 2-wire                      |
| Number of outputs     | 4                           |
| Nominal voltage       | 24 V DC (-15%/+20%)         |
| Load type             | ohmic, inductive, lamp load |
| Distributed clocks    | –                           |

|                                    |                                                              |
|------------------------------------|--------------------------------------------------------------|
| Max. output current                | 2.0 A (short-circuit proof) per channel                      |
| Short-circuit current              | typ. < 70 A                                                  |
| Reverse voltage protection         | yes                                                          |
| Breaking energy                    | < 1.7 J/channel                                              |
| Switching times                    | typ. T <sub>ON</sub> : 40 µs, typ. T <sub>OFF</sub> : 200 µs |
| Current consumption E-bus          | typ. 120 mA                                                  |
| Current consumption power contacts | typ. 13 mA + load                                            |
| Bit width in the process image     | 4 outputs                                                    |
| Configuration                      | no address or configuration setting                          |
| Electrical isolation               | 500 V (E-bus/field potential)                                |
| Weight                             | approx. 55 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                                                |
| Pluggable wiring                   | for all ESxxx terminals                                      |
| Approvals/markings                 | CE, CCC, UL, ATEX, IECEx                                     |
| Ex marking                         | ATEX:<br>II 3 G Ex ec IIC T4 Gc<br>IECEx:<br>Ex ec 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 (s), flexible conductor (st) and ferrule (f): spring actuation by screwdriver |                                              |

|                              |                                                                                                         |                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Connection cross-section     | s*: 0.08...2.5 mm <sup>2</sup> ,<br>st*: 0.08...2.5 mm <sup>2</sup> ,<br>f*: 0.14...1.5 mm <sup>2</sup> | s*: 0.08...1.5 mm <sup>2</sup> ,<br>st*: 0.08...1.5 mm <sup>2</sup> ,<br>f*: 0.14...1.5 mm <sup>2</sup> |
| Connection cross-section AWG | s*: AWG28...14,<br>st*: AWG28...14,<br>f*: AWG26...16                                                   | s*: AWG28...16,<br>st*: AWG28...16,<br>f*: AWG26...16                                                   |
| Stripping length             | 8...9 mm                                                                                                | 9...10 mm                                                                                               |
| Current load power contacts  | I <sub>max</sub> : 10 A                                                                                 |                                                                                                         |

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

## Ordering information

| Ordering information |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| EL2024               | EtherCAT Terminal, 4-channel digital output, 24 V DC, 2 A                   |
| ES2024               | EtherCAT Terminal, 4-channel digital output, 24 V DC, 2 A, pluggable wiring |