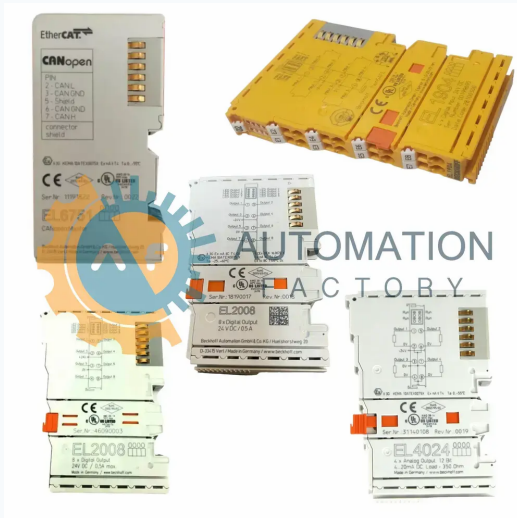




## Beckhoff — EL EtherCAT Terminals

# EL3144

**In-Stock, Ships Today**

- ✓ Get a Quote in 5 minutes
- ✓ Parts ship in as little as 24 hours
- ✓ Up to half the cost of the manufacturer

**Secure Online  
Checkout****Free Ground  
Shipping****One Year  
Warranty**

The **EL3144** is an analog input module manufactured by Beckhoff for the EL EtherCAT Terminals series. Intended for distributed control cabinets, the terminal converts four independent process currents into digital words that the EtherCAT master can read with cycle-accurate timing. By integrating signal conditioning, analog-to-digital conversion, and network communication in a compact housing, the device simplifies the collection of instrumentation data from pressure, level, or temperature sensors in industrial automation systems.

The module offers **4** single-ended channels that accept loop signals through a **2-wire connection**, so power and measurement share the same pair commonly used by process transmitters. Each sample is quantized with **16-bit resolution**, including the sign, and is acquired sequentially through the multiplexed architecture to prevent crosstalk among channels. A configurable hardware filter limits the analog bandwidth to **5 kHz**, allowing unwanted high-frequency noise to be attenuated before conversion. The terminal supports distributed clocks, allowing phase-aligned sampling when multiple analog terminals operate in the same EtherCAT system. Each single-ended input is measured against a common internal ground. The enclosure meets the **IP20** protection class, making it suitable for installation inside control cabinets that prevent direct access to live parts.

For electrical integrity, the input circuit has a dielectric strength of up to **30 V**, helping protect the bus electronics from field-side voltage differences. The input stage tolerates a maximum continuous load of **40 mA** without damage. The housing snaps onto a **35 mm DIN rail** for installation with other EtherCAT terminals. Configuration handling uses the NoCoeStorage feature, allowing startup parameters to be supplied by the EtherCAT master when

the terminal is initialized. In the process image, the module provides **4 x 16-bit + 4 x 8-bit** entries, allocating separate areas for signed measurement values and status flags that the PLC can access during each EtherCAT cycle.

## Specifications

|                                      |                        |                             |                          |                                                 |                                        |
|--------------------------------------|------------------------|-----------------------------|--------------------------|-------------------------------------------------|----------------------------------------|
| <b>Analog Inputs:</b>                | 4                      | <b>Approvals/markings:</b>  | CE, CCC, UL, ATEX, IECEx | <b>Connection Type:</b>                         | 2-Wire                                 |
| <b>Conversion Time:</b>              | ~ 100 µs               | <b>Dielectric Strength:</b> | 30 V Max.                | <b>Distributed Clock Precision:</b>             | << 1 µs                                |
| <b>Distributed Clocks:</b>           | Yes                    | <b>Ground Reference:</b>    | Single-Ended             | <b>Input Filter Limit:</b>                      | 5 kHz                                  |
| <b>Input Filter Limit Frequency:</b> | 5 kHz                  | <b>Max Input Current:</b>   | 40 mA                    | <b>Measurement Error/uncertainty:</b>           | < ±0.3% (relative to full scale value) |
| <b>Mounting Rail:</b>                | 35 mm                  | <b>Nocoestorage:</b>        | Yes                      | <b>Number Of Inputs:</b>                        | 4 (single-ended)                       |
| <b>Operating Temperature:</b>        | -25...+60°C            | <b>Oversampling Factor:</b> | None                     | <b>Power Supply:</b>                            | via the E-bus                          |
| <b>Process Image:</b>                | 4 x 16 Bit + 4 x 8 Bit | <b>Protection Class:</b>    | IP20                     | <b>Protection Rating/installation Position:</b> | IP20/variable                          |
| <b>Resolution:</b>                   | 16 Bit (Incl. Sign)    | <b>Sampling Type:</b>       | Multiplex                | <b>Signal Current:</b>                          | 0-20 mA                                |
| <b>Storage Temperature:</b>          | -40...+85°C            | <b>Last Verified:</b>       | 10/24/2026 8:15 AM       |                                                 |                                        |

## Contact Us

-  1620 Old Apex Road, Cary, NC 27513, USA
-  **Toll Free:** [1-888-551-3082](tel:1-888-551-3082)
-  **International:** [1-919-443-0207](tel:1-919-443-0207)
-  **Fax:** [1-919-867-6204](tel:1-919-867-6204)
-  **Email:** [sales@wakeindustrial.com](mailto:sales@wakeindustrial.com)

### Shipping Options



### Payment Methods



Automation Factory sells factory new and pre-owned surplus products and maintains channels to procure supply. Automation Factory is not affiliated with nor an authorized distributor or representative of any manufacturers, brands or products listed. Designated trademarks, brand names, and brands appearing herein are the property of their respective owners.