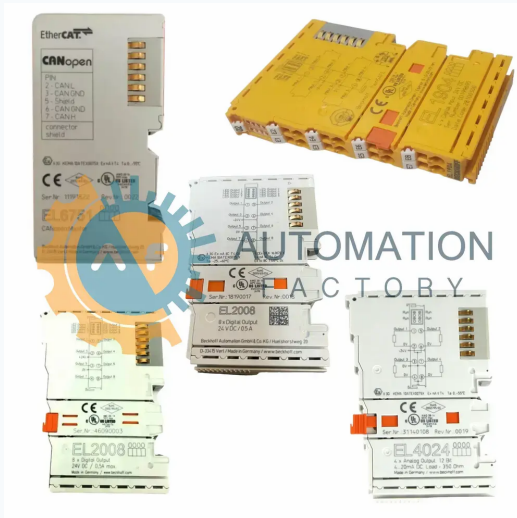




Beckhoff — EL EtherCAT Terminals

EL3024

 **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 **EL3024** analog input terminal is manufactured by Beckhoff and belongs to the EL EtherCAT Terminals series. As a modular I/O component, it digitizes process signals from field devices and transmits them over the EtherCAT network so motion controllers or PLCs can use them in closed-loop tasks such as pressure or flow regulation. It occupies a single terminal width on the DIN rail and draws its logic supply directly from adjacent modules, making it a space-efficient choice for distributed measurement nodes within industrial automation.

Each terminal provides **four analog input channels**. Conversion is handled by a **12-bit** successive-approximation converter that produces 4,096 discrete values per sample. The front end tolerates up to **10 V** of common-mode voltage, allowing sensors that float slightly away from the local ground to be measured accurately. A preamplifier stage includes a low-pass filter with a **1 kHz** cutoff to reduce high-frequency noise before sampling. All operating power and EtherCAT communication clocks are delivered through the system's **E-bus**, eliminating separate supply wiring and enabling simple plug-together expansion.

The housing has an **IP20** ingress protection rating suitable for protected cabinets, and the terminal can be installed in any orientation. The unit uses **multiplexed channel selection**, and the resulting data occupy **2 bytes of status data plus 2 bytes of value data per channel** in the process image, providing fixed byte offsets for PLC mapping. Measurements are referenced to a differential ground to suppress errors caused by field potential shifts, while open-circuit detection indicates wiring faults. The terminal tolerates up to **95% relative humidity without condensation**. It does not support CoE storage, so configuration data must be reapplied when a replacement

terminal is installed.

Specifications

Analog Inputs:	4	Common-mode Voltage Max:	10 V	Conversion Time:	0.625 ms default setting, configurable, multiplex
Current Consumption E-bus:	typ. 130 mA	Electronics Supply:	E-bus	Ground Reference:	Differential
Input Filter Cutoff:	1 kHz	Input Filter Limit Frequency:	1 kHz	Installation Position:	Variable
Internal Resistance:	typ. 85 ohm + diode voltage	Measurement Error/uncertainty:	< ~0.3% (relative to full scale value)	Nocoestorage Support:	Yes
Number Of Inputs:	4 (differential)	Open-circuit Indication:	Yes	Operating Temperature:	-25...+60C
Power Supply:	via the E-bus	Process Image Width:	2 B status + 2 B value/ch	Protection Rating:	IP20
Relative Humidity Max:	95%	Resolution:	12 bits	Sampling Type:	Multiplex
Signal Current:	4...20 mA	Storage Temperature:	-40...+85C	Surge Voltage Resistance:	35 V DC
Weight:	approx. 60 g	Last Verified:	10/24/2026 9:45 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

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.