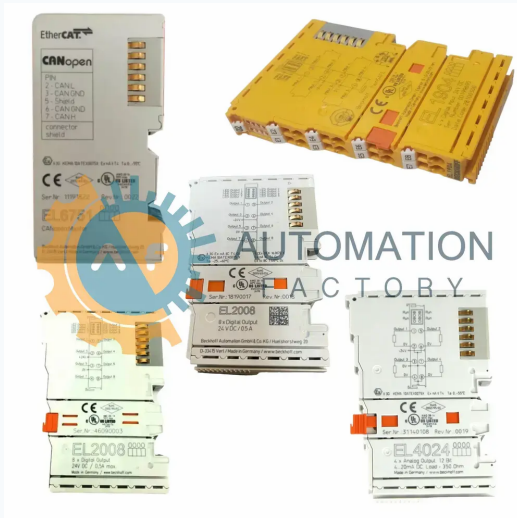




Beckhoff — EL EtherCAT Terminals

EL3012



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 **EL3012** is a differential analog input module manufactured by Beckhoff for the EL EtherCAT Terminals series. It integrates into an EtherCAT I/O station and offers two galvanically isolated measurement channels that write digitized values directly into the controller's process image. By capturing low-level sensor voltages and transmitting them over the real-time fieldbus, the unit supplies control systems with accurate feedback for closed-loop positioning, temperature regulation, and general machine supervision in industrial automation.

It samples each input with a **12-bit** converter and stores the signed result in a **16-bit format** within the process image, where each channel occupies 2 bytes of status data and 2 bytes of value data. The analog front end is protected by an internal resistance of **85 Ω** plus a diode drop and tolerates source faults up to 30 V without damage. Input signals pass through a differential **1 kHz** low-pass filter, which attenuates noise above its cutoff frequency. Galvanic isolation rated at **500 V** protects the EtherCAT electronics from field potentials, and readings are acquired sequentially by a multiplex sampler. Shield current for cable screens may reach 100 mA, while current on the terminal side is limited to 40 mA.

The electronics draw power solely from the **E-Bus**, eliminating the need for separate field power wiring. During operation, the differential inputs accept up to **10 V** of common-mode offset. The housing snaps onto a **35 mm DIN rail** and carries an **IP20** rating, so it is intended for installation in control cabinets with limited exposure to dust and moisture. The module can be installed in any orientation and operates reliably at up to 95% relative humidity without condensation. Stored CoE parameters are retained in nonvolatile memory.

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.

Specifications

Analog Inputs:	2	Approvals/marks:	CE, UL, ATEX	Channel Count:	2
Common-mode Voltage:	10 V Max	Common-mode Voltage Max:	10 V	Conversion Time:	<=1 ms
Current Consumption E-bus:	Typically 110 mA	Electronics Supply:	Via E-Bus	Fault Source Voltage Max:	30 V
Filter Cutoff:	1 kHz	Ground Reference:	Differential	Input Filter Cutoff:	1 kHz
Input Impedance:	>100 k?	Input Range:	-10 V to +10 V	Input Type:	Voltage
Installation Position:	Variable	Internal Resistance:	85 ? + diode voltage	Isolation Voltage:	500 V
Max Humidity:	95%, no condensation	Mounting:	35 mm DIN Rail	Mounting Rail:	35 mm
Nocoestorage Support:	Yes	Number Of Channels:	2	Operating Temperature:	0 °C to 55 °C
Power Supply:	Via E-bus	Process Image Width:	2 B status + 2 B value/channel	Process Value Width:	16 bits incl. sign
Protection Rating:	IP20	Resolution:	12 bits	Sampling Type:	Multiplex
Shield Current:	100 mA	Signal Connection:	Single-ended (ground-referenced)	Signal Terminal Current:	40 mA
Type:	Analog input terminal	Weight:	Approx. 70 g	Last Verified:	10/24/2026 7:03 PM

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.