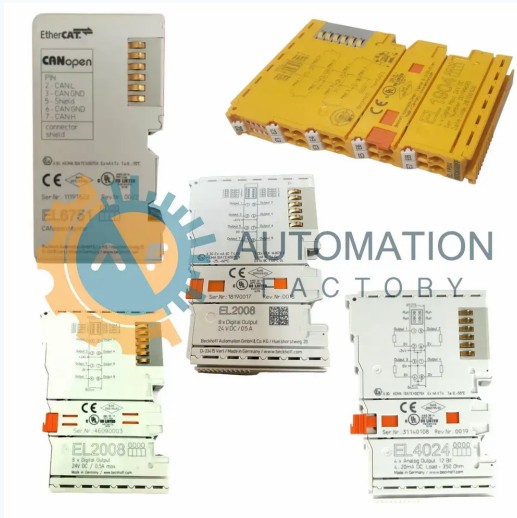


Beckhoff — EL EtherCAT Terminals

EL3002



 **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 **EL3002** analog input terminal is produced by Beckhoff within the EL EtherCAT Terminals series. It occupies a single slot on an EtherCAT I/O station and converts field-level voltage signals into digital words for the controller. In automated machinery, it lets the PLC monitor process variables such as pressure or position that are delivered as single-ended ± 10 V signals. This arrangement supports direct integration with sensors that use a common ground reference. The compact terminal format also allows it to operate alongside other EtherCAT input and output modules in the same station.

It provides **2 analog inputs** that share the terminal's internal ground, and each channel accepts a full-scale range of **± 10 V**. Conversion is handled by a **12-bit** successive-approximation converter. With 50 Hz rejection enabled, each channel is updated after **0.625 ms**, so transient changes are passed to the bus with minimal latency. The module samples in a multiplexed sequence, allowing both channels to be scanned through the same converter without interaction. An input filter with a cutoff frequency of **1 kHz** attenuates higher-frequency noise before digitization, while the **single-ended reference** simplifies wiring to sensors that use a common reference potential. Values are packed as 16-bit process words, and status bytes are appended so the controller can evaluate overrange conditions or wiring faults. Power for the electronics is drawn exclusively from the E-bus.

The housing carries an **IP20** rating, so it is intended for installation inside a control cabinet where protection against accidental finger contact is required. A snap-fit foot locks onto a **35 mm DIN rail**, keeping the terminal aligned with adjacent EtherCAT modules and providing a secure mounting connection. Internal spacing and conformal coating

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.

provide a dielectric withstand rating of **30 V** between the channels and internal circuitry, helping protect the controller when field wiring is disconnected while energized. Each channel contributes two status bytes and two value bytes to the process image. The terminal operates without distributed-clock support, making it suitable for analog acquisition that does not require synchronized sampling. Its multiplexed conversion method allows both input channels to be processed through a shared conversion circuit while retaining separate values and status information for each channel.

Specifications

Analog Inputs:	2	Approvals/markings:	CE, CCC, UL, ATEX, IECEx	Conversion Time:	0.625 ms default setting, configurable, multiplex
Conversion Time (50 Hz):	0.625 ms	Data Presentation:	16 bits	Dielectric Strength:	Max. 30 V
Distributed Clocks:	No	Ground Reference:	Single-ended	Input Filter Cutoff:	1 kHz
Input Filter Limit Frequency:	1 kHz	Internal Resistance:	> 130 kohm	Max Dielectric Strength:	30 V
Measurement Error/uncertainty:	< ~0.3% (relative to full scale value)	Mounting Rail:	35 mm	Number Of Inputs:	2 (single-ended)
Operating Temperature:	-25...+60C	Power Supply:	E-bus	Process Image:	2 B status, 2 B value/ch
Protection Rating:	IP20	Resolution:	12 bits	Sampling Type:	Multiplex
Signal Voltage:	±10 V	Storage Temperature:	-40...+85C	Weight:	Approx. 70 g
Last Verified:	10/24/2026 10:19 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.