

## Beckhoff — EPP EtherCAT P Box Modules

# EPP2334-0061



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The **EPP2334-0061** is a digital I/O box manufactured by Beckhoff for the EPP EtherCAT P Box Modules series. It mounts directly on machinery and links to the controller through a daisy-chainable P-coded trunk that combines EtherCAT communication with a 24 V supply. Field wiring uses M8 sockets dedicated to signal lines, while network continuity passes through two 4-pin, P-coded M8 ports on the enclosure. The module translates localized sensor or actuator states into deterministic EtherCAT telegrams in distributed automation layouts.

The device offers **4 configurable channels** that can be selected individually as IEC Type 3 inputs or high-side transistor outputs. Each output can supply **a maximum of 0.5 A per channel**, provided the total load current does not exceed **3.0 A for the entire device**. The power stage draws electricity from the UP rail at **24 V DC**, ensuring direct compatibility with standard control supplies. A typical **50 µs turn-on time** lets valves or contactors engage within one bus cycle, while the corresponding turn-off delay is 100 µs to minimize residual energy. The input circuitry complies with EN 61131-2 Type 3 thresholds, allowing sensors to be connected directly without level converters.

During operation, the logic section is stabilized by the US rail at 24 V DC and consumes only **6 mA at 24 V DC**, which permits long node chains without overloading the feeder. An internal hardware debounce time of **10 µs** cleans incoming signals before they reach the EtherCAT core, preserving timing precision. Each output channel incorporates electronic protection that limits the fault current to **a maximum of 1.5 A per channel** until the controller reacts. The same high-side stage can provide up to 0.5 A of total sensor power. The enclosure measures

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only **30 × 86 × 22 mm**, supporting installation on grippers, indexing tables, or mobile carriages where space is limited.

## Specifications

|                               |                        |                                |                        |                                     |                               |
|-------------------------------|------------------------|--------------------------------|------------------------|-------------------------------------|-------------------------------|
| <b>Configurable Channels:</b> | 4                      | <b>Connector Type:</b>         | M8                     | <b>Current Rating:</b>              | 0.5 A                         |
| <b>Dimensions:</b>            | 30 mm x 86 mm x 22 mm  | <b>Dimensions (w X H X D):</b> | 30 x 86 x 22 mm        | <b>Ethercat P Ports:</b>            | 2 x M8 Socket, 4-Pin, P-Coded |
| <b>Housing Material:</b>      | Polyamide              | <b>Ingress Protection:</b>     | IP67                   | <b>Input Current:</b>               | 6 mA At 24 VDC                |
| <b>Input Filter:</b>          | 10 μs                  | <b>Input Type:</b>             | Type 3 Per EN 61131-2  | <b>Operating Temperature Range:</b> | -20°C to 60°C                 |
| <b>Output Current:</b>        | 0.5 A Max. Per Channel | <b>Power Consumption:</b>      | 12 W                   | <b>Sensor Supply Current:</b>       | 0.5 A Max. Total              |
| <b>Sensor Supply Voltage:</b> | 24 VDC From UP         | <b>Short Circuit Current:</b>  | 1.5 A Max. Per Channel | <b>Signal Connection:</b>           | 4 x M8 Socket                 |
| <b>Total Output Current:</b>  | 3.0 A Max.             | <b>Turn-off Time:</b>          | 100 μs Typ.            | <b>Turn-on Time:</b>                | 50 μs Typ.                    |
| <b>Up Nominal Voltage:</b>    | 24 VDC                 | <b>Us Nominal Voltage:</b>     | 24 VDC                 | <b>Voltage Rating:</b>              | 24 VDC                        |
| <b>Last Verified:</b>         | 10/23/2026 3:36 AM     |                                |                        |                                     |                               |

## Contact Us

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### Shipping Options



### Payment Methods



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