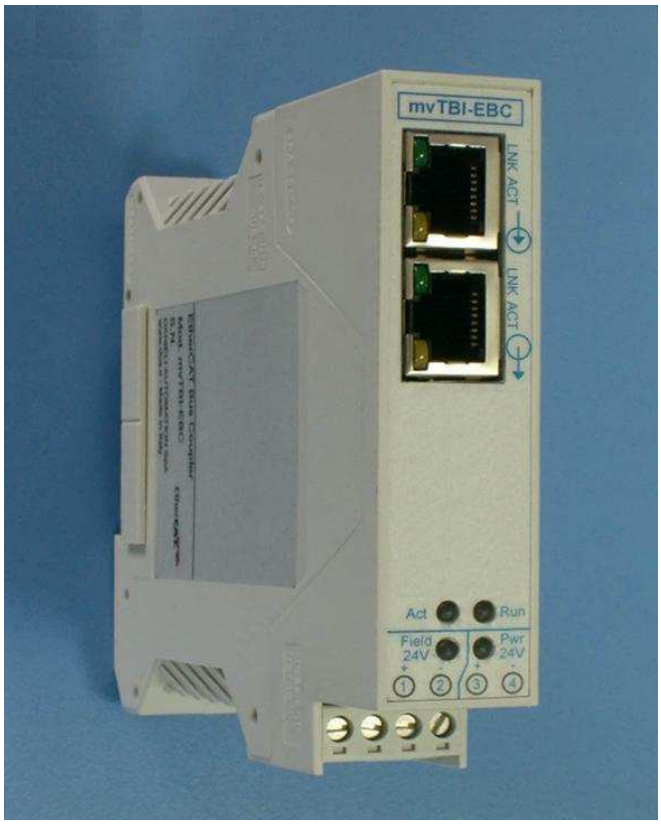
# mvTBI-EBC EtherCAT Bus Coupler




## Features

- Bypass function in case of Power Supply fault
- Bus Connection: RJ45
- No configuration required
- Max number of EtherCAT Bus Terminals: 65535
- Max number peripheral signals: unlimited
- Fully compatible with EtherCAT protocol

## Applications

- Process control
- Machine control
- Distributed systems
- Strip chart recorders
- Proportional valves

## Overview

The **mvTBI-EBC** module is an EtherCAT Bus Coupler with bypass function in case of Power Supply fault, in order to maintain EtherCAT communication to the other slaves in case of power supply fault.
It interfaces your EtherCAT Master with the other modules of the mvTBI System.
**mvTBI-EBC** is full compatible with EtherCAT protocol and works with both Twincat System Manager and ***Ma.Vi.*** EtherCAT Master system, as well as any other EtherCAT Master.
The special hardware design of **mvTBI-EBC** module permits to switch off the power to a part of the mvTBI System while maintaining the communication with other slaves.

## Hardware Specifications

***Maximum number of EtherCAT Terminals:*** 65535

***Link type***

| | |
|---|---|
| Data transfer medium | Ethernet CAT 5 cable |
| Protocol | EtherCAT |
| Baud rate | 100 Mbaud |
| Bus connection | RJ45 |
| Max length between 2 mvTBI-EBC | 100 m |

***Power Requirements***

| | |
|---|---|
| Voltage | 24 V ± 5%, |
| Current | 70 mA typ. |

***Power Supplied***

| | |
|---|---|
| E-Bus | 5 V, 3 A max. |
| Field | 24 V ± 5%, 10 A max. |

***Dimensions***

| | |
|---|---|
| Height | 99 mm |
| Width | 22,5 mm |
| Depth | 114,5 mm |

***Mounting***

On 35mm mounting rail conform to EN 50022

## Environmental Specifications

***Temperature***

| | |
|---|---|
| Operating | 0° to 65° C (32° to 149° F) |
| Non operating | -40° to 85° C (-40° to 185° F) |

***Humidity*** 20 to 95% RH, non-condensing

***Altitude***

| | |
|---|---|
| Operating | Sea level to 10,000 ft. (3048m) |
| Non operating | Sea level to 40,000 ft. (12192m) |

***Vibration***

| | |
|---|---|
| Operating | 5 to 2,000 Hz<br>.015" (.38 mm) peak-to-peak displacement<br>2.5g (maximum) acceleration, |
| Nonoperating | 5 to 2,000 Hz<br>.030" (.76 mm) peak-to-peak displacement<br>5.0 g (maximum) acceleration, |

***Shock***

| | |
|---|---|
| Operating | 30 g peak acceleration<br>11 msec duration |
| Nonoperating | 50 g peak acceleration<br>11 msec duration |

## EtherCAT Compliance

- IEC 61158-2-12
- IEC 61158-3-12
- IEC 61158-4-12
- IEC 61158-5-12
- IEC 61158-6-12
- EtherCAT Slave Device Description Documentation

## Warranty

The **mvTBI-EBC** carries a one-year warranty.

## Ordering Information

**mvTBI-EBC** : EtherCAT Bus Coupler

Title: mvTBI-EBC Data Sheet
Document File: mvTBI-EBC_ds.pdf
Revision: 1.5 09/11/09
Language: English