

## 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                                                                                                                                                  |  | Environmental Specifications                                                                                                                                                                                                       |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Maximum number of EtherCAT Terminals:</b> 65535                                                                                                                       |  | <b>Temperature</b><br>Operating 0° to 65° C (32° to 149° F)<br>Non operating -40° to 85° C (-40° to 185° F)                                                                                                                        |  |
| <b>Link type</b><br>Data transfer medium Ethernet CAT 5 cable<br>Protocol EtherCAT<br>Baud rate 100 Mbaud<br>Bus connection RJ45<br>Max length between 2 mvTBI-EBC 100 m |  | <b>Humidity</b> 20 to 95% RH, non-condensing<br><b>Altitude</b><br>Operating Sea level to 10,000 ft. (3048m)<br>Non operating Sea level to 40,000 ft. (12192m)                                                                     |  |
| <b>Power Requirements</b><br>Voltage 24 V ± 5%,<br>Current 70 mA typ.                                                                                                    |  | <b>Vibration</b><br>Operating 5 to 2,000 Hz<br>.015" (.38 mm) peak-to-peak displacement<br>2.5g (maximum) acceleration,<br>Nonoperating 5 to 2,000 Hz<br>.030" (.76 mm) peak-to-peak displacement<br>5.0 g (maximum) acceleration, |  |
| <b>Power Supplied</b><br>E-Bus 5 V, 3 A max.<br>Field 24 V ± 5%, 10 A max.                                                                                               |  | <b>Shock</b><br>Operating 30 g peak acceleration<br>11 msec duration<br>Nonoperating 50 g peak acceleration<br>11 msec duration                                                                                                    |  |
| <b>Dimensions</b><br>Height 99 mm<br>Width 22,5 mm<br>Depth 114,5 mm                                                                                                     |  | <b>EtherCAT Compliance</b><br>– IEC 61158-2-12<br>– IEC 61158-3-12<br>– IEC 61158-4-12<br>– IEC 61158-5-12<br>– IEC 61158-6-12<br>– EtherCAT Slave Device Description Documentation                                                |  |
| <b>Mounting</b><br>On 35mm mounting rail conform to EN 50022                                                                                                             |  | <b>Warranty</b><br><br>The mvTBI-EBC carries a one-year warranty.                                                                                                                                                                  |  |
|                                                                                                                                                                          |  | <b>Ordering Information</b><br><br>mvTBI-EBC : EtherCAT Bus Coupler                                                                                                                                                                |  |

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