### mvTBI-E8DIO

**Digital I/O EtherCAT Terminal**

#### Features
- 8 digital output channels
- 8 digital input channels
- Output channels updated simultaneously
- Voltage input/output ranges: 0-5V, 0-24V
- 0-5V I/O’s available with both Totem-Pole and Open Collector logic
- Software configurable (output process image)
- Both 5V and 24V I/O insulated each other
- 1000V isolation
- Fully compatible with EtherCAT protocol

#### Applications
**Outputs**
- Control valves
- Solid-state relays
- Alarm interface
- Indicator lamps

**Inputs**
- Push buttons or panel switches
- Limit switches
- Proximity switches
- Alarm trips
- Photo detector switches

#### Overview
The **mvTBI-E8DIO** Digital Input/Output EtherCAT terminal is a powerful, 16 channels Digital Input/Output module. This terminal provides your EtherCAT system with the capability of 8 digital output and 8 digital input channels, 4 of which available with ranges of 0-5V (TTL level) and 4 available with ranges of 0-24V. Each Input and Output @ TTL level may be individually configured via software for Totem-Pole or Open Collector logic way by writing a specific value in InConfig (to configure inputs) or/and in OutConfig (to configure outputs) fields in the output process image.

The **mvTBI-E8DIO** supports simultaneous output updating.

The two voltage groups (0-5V and 0-24V) are insulated each other.

The **mvTBI-E8DIO** provides isolation up to 1000 volts.
## Hardware Specifications

### Output Characteristics
- Number of Channels @ 24V: 4
- Number of Channels @ 5V: 4
- Switching time:
  - ON @ 5V: 5 µs max.
  - OFF @ 5V: 20 µs max.
  - ON @ 24V: 50 µs max.
  - OFF @ 24V: 60 µs max.
- Output current max. (per channel)
  - @ 5V: 350 mA
  - @ 24V: 0.7 A

### Input Characteristics
- Number of Channels @ 24V: 4
- Number of Channels @ 5V: 4
- Switching time:
  - ON @ 5V: 5 µs max.
  - OFF @ 5V: 40 µs max.
  - ON @ 24V: 5 µs max.
  - OFF @ 24V: 40 µs max.
- Input current max. (per channel)
  - @ 5V: 250 µA
  - @ 24V: 10 mA

### Isolation
- 1000 V

### Power Requirements
- E-Bus: 5 V, 130 mA typ. with I/O at high logic level
- Field: 24 V±5%, 80 mA typ. with I/O at high logic level

### Dimensions
- Height: 99 mm
- Width: 45 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, .015" (.38 mm) peak-to-peak displacement, 2.5g (maximum) acceleration,
- Nonoperating: 5 to 2,000 Hz, .030" (.76 mm) peak-to-peak displacement, 5.0 g (maximum) acceleration,

### Shock
- Operating: 30 g peak acceleration, 11 msec duration
- Nonoperating: 50 g peak acceleration, 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-E8DIO carries a one-year warranty.

## Ordering Information
mvTBI-E8DIO: 8 input channels + 8 output channels.