



## I/O Modules: eBM-440

### Description

The eBM-440 is an enteliBUS™ I/O Expansion Module with 4 universal inputs and 4 universal outputs with optional monitored overrides. Auto detecting and hot swappable I/O Modules are selected to create the exact I/O combination needed for a given application. Should the application require the system to expand in the future, I/O expansion is easy to add.



**eBM-440-M**

### Application

The enteliBUS Control System is made up of multiple modular components that you select to meet the exact needs of a wide range of HVAC and Access control applications.

The enteliBUS I/O Modules provide the field I/O interface for the enteliBUS Control System. With I/O Modules supporting all common control types this allows the controller I/O mix to be easily and efficiently tailored to fit any application.

### Features

- Auto detecting & hot swappable
- Universal inputs (jumper configurable)
- 0-100% LED status indication of each input state.
- 0-100% adjustable monitored output overrides (optional)
- Tri color LED status indication of each output state.
- Small footprint, DIN rail mountable
- Modular design provides flexibility, ease of service, and reduced cost for future upgrades/expansion

### Specifications

#### Inputs

4 Universal inputs (12 bit), jumper configurable for:

- 0-5 VDC, > 1MΩ loading
- 0-10 VDC, 20KΩ loading
- 10 KΩ Thermistor, 10KΩ to 5VDC
- Dry Contact (using 10 KΩ jumper setting)
- 4-20 mA, 250Ω to Gnd

LED status indication of each input:

- Black = 0% to Bright Blue = 100%

#### Outputs

4 Universal outputs

- 0-10VDC at 20mA maximum
- Software configurable as binary or analog
- 0-100% adjustable monitored overrides option (3 position HAO switches with adjust levers)

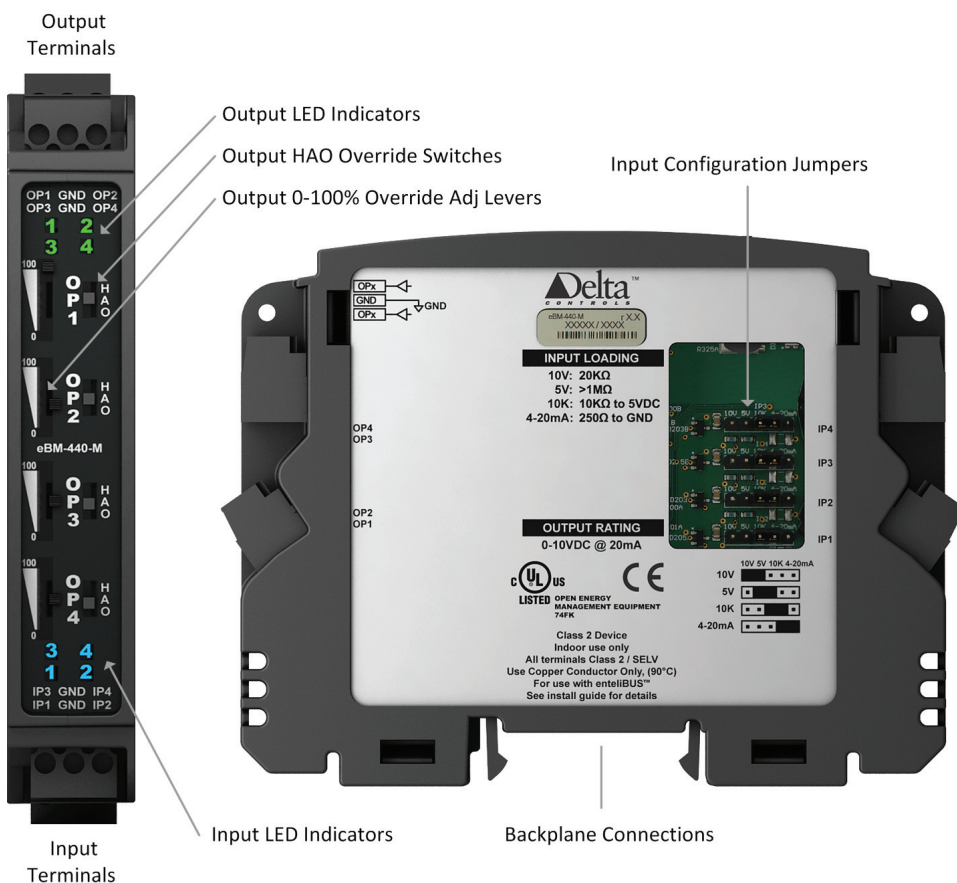
Tri color LED status indication of each output

- Auto: Black = 0% to Bright Green = 100%
- Manual Off = Red
- Hand: Black = 0% to Bright Yellow = 100%

#### Connectors

3 Pin removable screw-type terminal connectors

## eBM-440-M: Board Layout Diagram



## Specifications (Continued)

**Wiring Class**  
Class 2 / SELV

**Power**  
24VAC/DC  
6VA\*

\*I/O Module power is supplied from an eBX or eBCON through the Backplane.

**Ambient**  
0° to 55°C (32° to 131°F)  
10 - 95% RH (non-condensing)

**Dimensions**  
12.6 x 2.3 x 10 cm (5.0 x 0.9 x 4.0")

**Mounting**  
Snap mounts to enteliBUS Backplane & DIN rail assembly

**Enclosure Protection Rating**  
IP30

**Compliance**  
CE

FCC

**Listings**  
UL 916

## Ordering

<b>eBM-440</b>	enteliBUS I/O Module - 4x universal inputs & 4x 0-10VDC outputs
<b>eBM-440-M</b>	enteliBUS I/O Module - 4x universal inputs & 4x 0-10VDC outputs w/ 3 position HAO override switches and 0-100% override adjust levers

## Accessories

(See enteliBUS Parts List for a complete list of all available enteliBUS modules and accessories)

<b>eBX-04</b>	enteliBUS Expander - I/O Expander with 4 slot Expander Backplane
<b>eBX-08</b>	enteliBUS Expander - I/O Expander with 8 slot Expander Backplane
<b>eBCON</b>	enteliBUS Controller - Compact CPU/Comm. module with 4 slot Controller Backplane

Subject to change without notice.