

# Primis Relay Bridge™ Elevator Control Installation Guide

## PART NUMBERS



FR-50-40-E, FR-50-40-EL



**ENTERPHONE**

FR-50-24-E

## PHYSICAL SPECIFICATIONS

|                |  |
|----------------|--|
| Length         | 277 mm (10.91 in.)   |
| Width          | 165 mm (6.50 in.)  |
| Height         | 24 mm (0.94 in.)   |
| Weight         | 564 g (19.89 oz.)  |
| Max Readers    | 2 (each reader requires a FR-50-40-W485 adapter)                                 |
| Max Input      | 0  |
| Max Output     | 24   |
| Certifications | <b>Electrical:</b> UL294 and UL294B<br><b>EMI Radiation:</b> FCC Part 15 Class B |

## SUMMARIZED LEVELS OF ACCESS CONTROL COMPONENTS

|                      |         |
|----------------------|---------|
| Destructive Attack   | Level I |
| Line Security        | Level I |
| Endurance            | Level I |
| Standby Power        | Level I |
| Single Point Locking | Level I |

## INSTALLATION REQUIREMENTS

Primis Bridges should only be installed in dry, non-condensing environments. The ambient temperature of the environment should range between -40°C and 50°C.

Primis Encryption Bridges should only be mounted to non-conductive surfaces. Incorrect mounting may short-circuit the electronics, which will cause it to malfunction.

DC power, reader, and output device wires should be between 16-28 AWG. They should also be stripped 5.5mm to sufficiently fit the terminal blocks and ensure that they do not come in contact with each other.

## READER INSTALLATION REQUIREMENTS

The RS-485 input on the FR-50-40-E is intended for use in elevator cabs.

Two wire shielded cable running inside the travelling cable to the elevator cab is connected to the RS-485 inputs on the FR-50-40-E Primis Bridge and then connected to a FR-50-40-W485 (Wiegand to 485 adapter) in the cab.

A Wiegand output reader can then be connected to the inputs on the FR-50-40-W485 adapter. Up to two reader adapters can be connected to the RS-485 inputs on the FR-50-40-E.

The shield wire should only be connected at the RS-485 input on the FR-50-40-E.

## INSTALLATION PROCEDURE

1. Wire any output devices to the Relay Outputs shown on the wiring reference on the back.
2. Supply power to the Primis Bridge using 12 - 16 Vdc & 1500 mA (1500 mA internal; ~60.4 mA per relay) DC power connected directly to the Power In terminal on the Primis Bridge.
3. Connect a Cat5e or Cat6 cable from any port on an Ethernet switch to the RJ-45 connector on the Primis Bridge. Ensure that the length of the cable between the switch to the Primis Bridge is 100m or less. Greater lengths can be achieved by adding switches or repeaters every 100m.
4. To configure and add the Primis Bridge to a MESH/Primis Server, refer to the MESH/Primis Solution Guide manual. the RJ-45 connector on the Primis Bridge. **Note:** Ethernet only supports a maximum cable length of 100 m.



A flashing green "Ready" LED light on the Primis Bridge circuit board indicates that the bridge is powered but not connected to a server.



A solid green "Ready" LED light indicates that the Primis Bridge has established a connection to the server and is ready to use.

### DC POWER IN

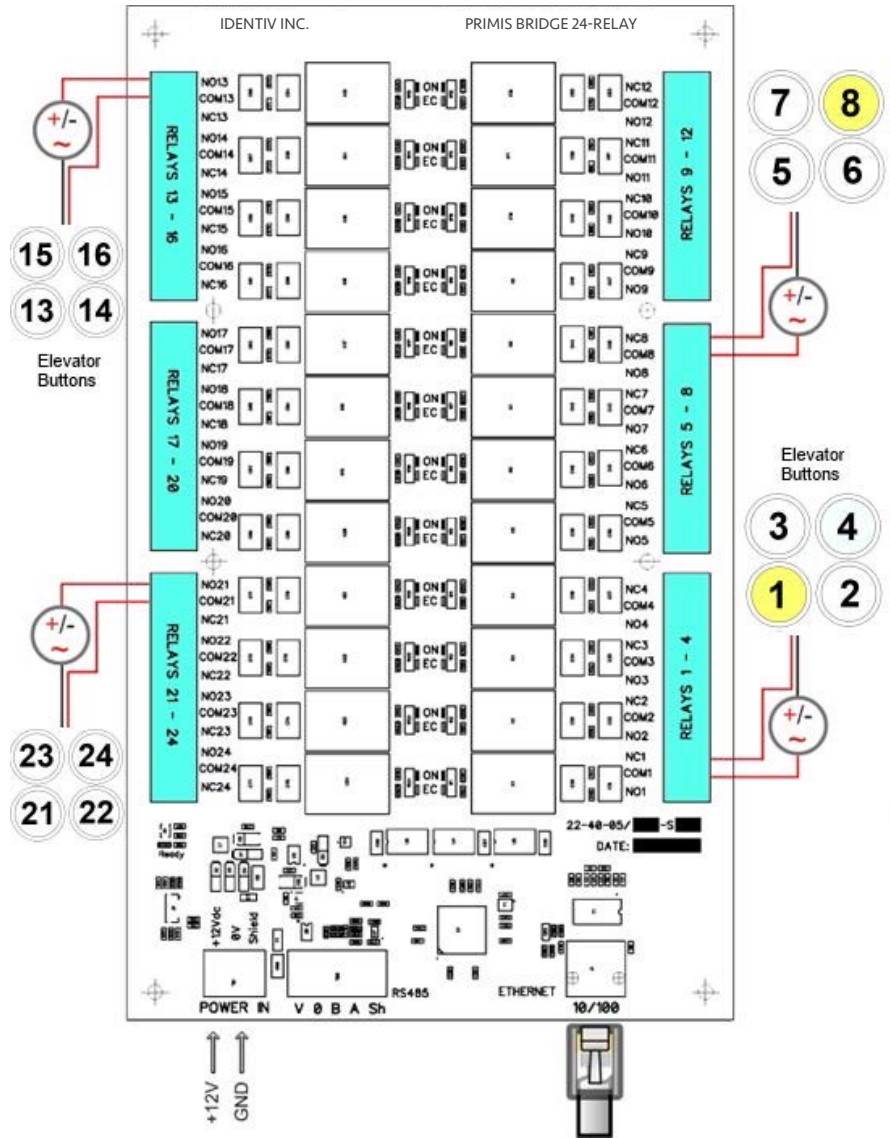
|              |   |
|--------------|---|
| 0v           | DC Power Ground   |
| +12          | DC Power Input  |
| Requirements | <ul style="list-style-type: none"> <li>• 12 – 16 Vdc</li> <li>• 1500 mA<br/>(1500 mA internal &amp; ~60.4mA per relay)</li> </ul> |

### RELAY OUTPUTS

|               |  |
|---------------|--|
| NC 1 - 24     | Normally closed 1 - 24   |
| COM 1 - 24    | Common 1 - 24  |
| No 1 - 24     | Normally open 1 - 24   |
| Relay Contact | DC: 30 Vdc @ 4 Adc<br>AC: 120 Vac @ 5 Aac<br>AC: 240 Vac @ 2.5 Aac |

### RESET BUTTON

Press and hold this button for 10 seconds to reset the configuration back to default.



### CAUTION

This product is sensitive to Electrostatic Discharges (ESD). Take precautions while handling the product by using proper grounding straps at all times.