

Elpas Display Panel

For P/N: 5-EDP00485 (Bus Version)

Wiring Guide

Introduction

This wiring guide provides basic instructions for common Elpas Display Panel (BUS Version) installation scenarios.

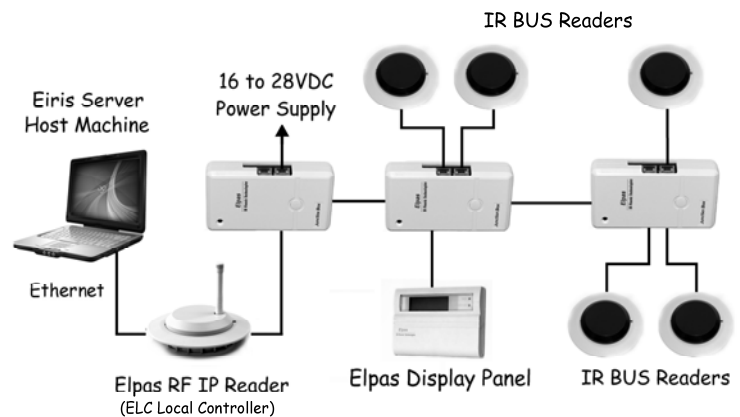
Note: VT is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Product Description

The Elpas Display Panel (EDP) is a wall mountable, display and management panel that enables users to view and clear individual alerts and to manage the status of specific Elpas tags without the need to access a host RTLS client station.

The EDP contains a four-line, 20-character LCD for displaying real-time tag and alert status information and a keypad for managing open alerts or tag status. The device has an audible buzzer for indicating the receipt of a new alert or of device malfunction and I/O ports that enable the monitoring of one analog input and one open-collector digital output.

The EDP also supports data transmission with up to fifteen other Elpas BUS devices such as RF or IR Readers, IO Boxes, and LF Exciters.



EDP (BUS Version) - Sample Network Topology
(Refer to page 2 for Wiring Details)

Circuit Board Terminal Blocks

RS-485 Interface: The EDP has two female RJ-11 connectors (J1 & J2) for connecting to the RS-485 Junction Box. These connectors are used for both power & data. (See page 2 for details)

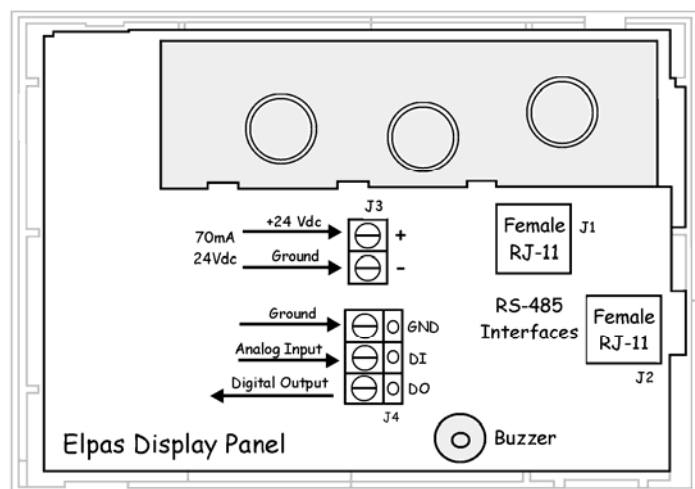
NOTE: Only one of the two the RJ-11 connectors should be used at any one time to wire the EDP to the RS-485 BUS Junction box. In addition, the non-used RJ-11 connector should not be used for linking to other Elpas BUS devices.

Power: The EDP has a two position terminal block (J3) for powering the device locally when the device is not powered via the RS-485 BUS.

Recommended Cable: 22 AWG, unshielded/twisted pair.

Input/Outputs: The EDP has a three position terminal block (J4) for wiring one analog input. The input supports End-of-the-Line (EOL) supervision in order to detect such fault conditions as: Open. Close, Line Cut and Line Short. (See page 2 for details)

The EDP also uses the same three position terminal block (J4) for wiring one open-collector digital output. (See page 2 for details)

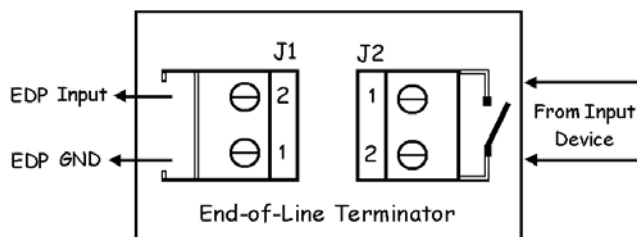


EDP (BUS Version) – Circuit Board Details

IMPORTANT: The EDP **MUST BE** powered-down while wiring the unit's I/Os and when connecting to the RS-485 BUS. This will prevent accidental shorts or power spikes causing damage to the device

Supervised Analogue Input

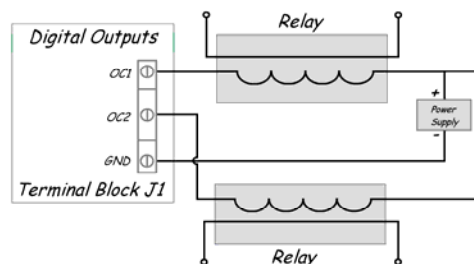
The EDP has one analog input (Terminal Block J3). Using an Elpas End-of-Line Terminator (P/N: 5-IOX00001), EOL supervision may be added to the input to detect: Open, Close, Line Cut and Line Short circuit conditions.



Recommended Cable: 22 AWG, unshielded/twisted pair

Open-Collector Digital Output

The EDP has one general purpose digital output (Terminal Block J3) that provides open-collector switching (up to 100mA, 28VDC).



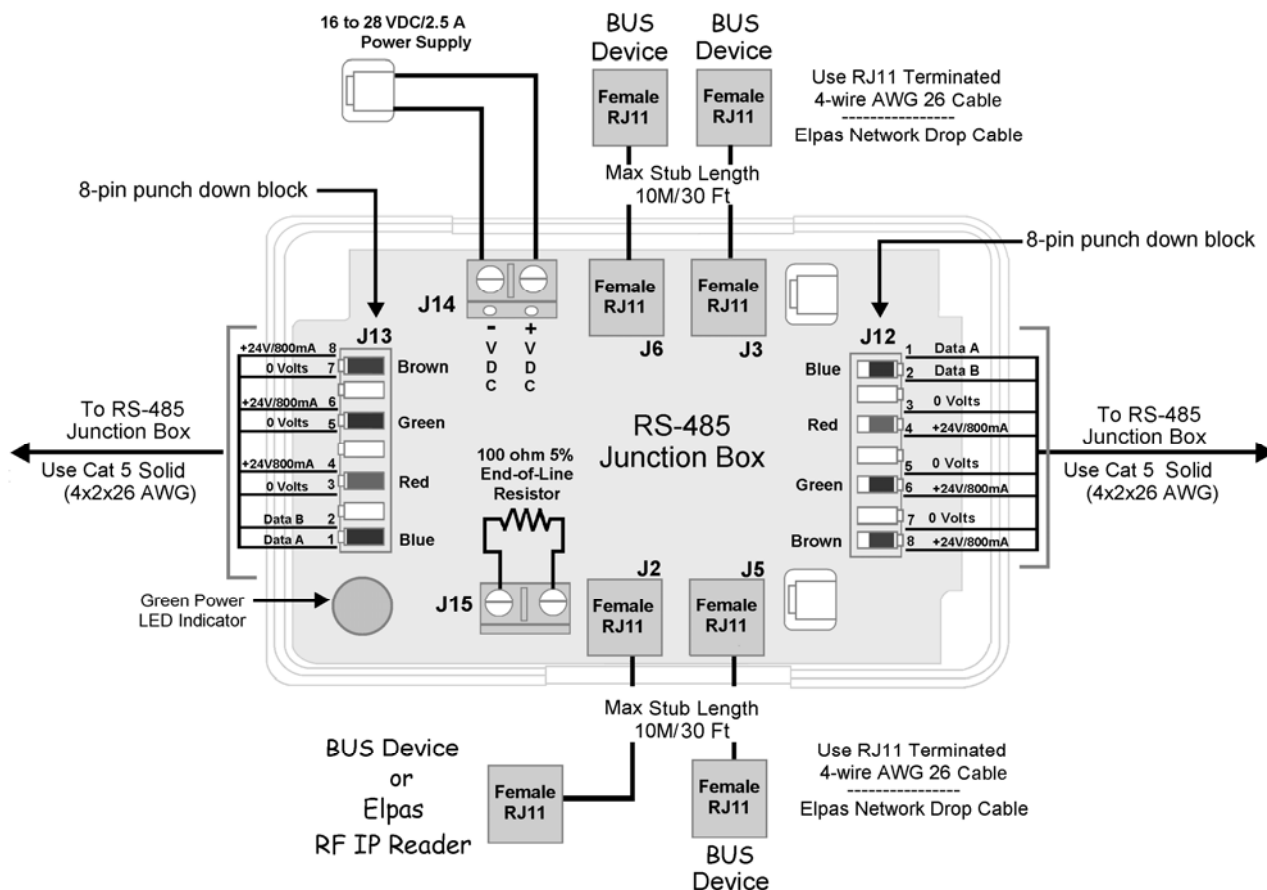
Recommended Cable: 22 AWG, unshielded/twisted pair

RS-485 BUS/Stub Topology

RS-485 BUS **MUST Be** wired using a BUS/Stub topology where the BUS Master (either a RF IP Reader or an ELC Controller) is connected anywhere along the BUS. The topology supports data transmission between the BUS Master and up to 15 Elpas BUS Devices (such as RF or IR Readers; LF Exciters, Elpas Display Panels and I/O Boxes) using multiple Elpas RS-485 Junction Boxes (P/N: 5-JBA00485).

IMPORTANT NOTE: Only 1 RF IP Reader/ELC Controller and up to 7 RF BUS Readers may coexist together on a single BUS.

200M/650Ft: Max. BUS length **10M/30Ft:** Max. Stub length **100 Ohm Termination:** Required each end of the BUS.



RS-485 Junction Box - Sample Wiring Topology

Recommended RS-485 Backbone Cable Type: CAT5 Solid (4x2x26AWG)

For Power: Use three-twisted pairs (six conductors) between RS-485 Junction boxes

For Data: Use one-twisted pair (two conductors) between RS-485 Junction boxes



W.E.E.F. Product Recycling Declaration

For information regarding the recycling of this product, you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste. Directive 2002/96/EC Waste Electrical and Electronic Equipment.