



# IMPROX I16

## ImproX I16 16 Channel Input Terminal INSTALLATION MANUAL

### SPECIFICATIONS

<b>Working Environment</b> .....	Mounted vertically, with the Cable Entry Glands at the lower side, the Terminal is designed to work in an indoor or outdoor environment similar to IP43.	
<b>Input Voltage</b> .....	10 V DC to 30 V DC, polarity sensitive.	
<b>Power Requirements</b>	<b>Current (mA)</b>	<b>Power (W)</b>
Input Voltage 10 V DC	46.30	0.47
Indicators all OFF .....		
Input Voltage 30 V DC	19.70	0.60
Indicators all OFF .....		
Input Voltage 10 V DC	80	0.80
Indicators all ON.....		
Input Voltage 30 V DC	31.30	0.95
Indicators all ON.....		
<b>Digital Inputs</b>		
Type .....	16 Dry-contact Digital Inputs.	
Protection Range .....	+80 V to -80 V single pulse, +35 V to -30 V continuous.	

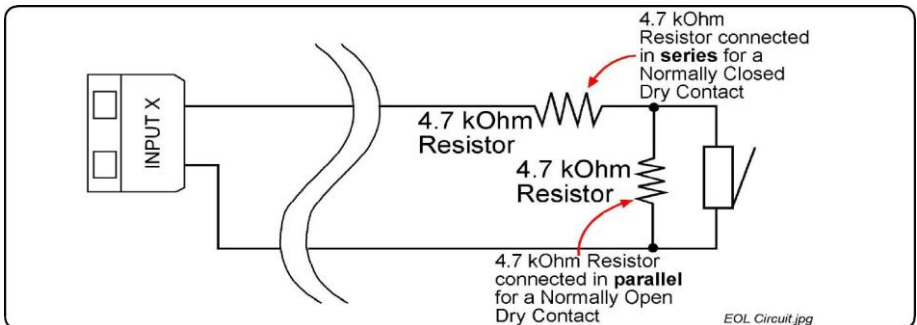


Figure 1: End of Line (EOL) Sensing Circuit

## Status Indicators

Input Status .....	16 Green LEDs (Software controllable, indicates when input is high or low), (externally visible).
Power Polarity Indicator .....	Red LED (internally visible).
Incoming RS485 Data .....	Flashing Green LED (externally visible).
Outgoing RS485 Data .....	Flashing Red LED (externally visible).
Unit Status .....	Red LED (Software controllable) (externally visible).

# INSTALLATION INFORMATION

## Accessories

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Find the following when unpacking the Terminal:

- An ImproX I16 16 Channel Input Terminal housed in a Black powder-coated Aluminium extruded Cabinet. The Cabinet is sealed at each end with an Aluminium End Plate, secured with 4 Allen Head Screws (M3 x 12 mm).
- Two Plastic Bushing Plugs (20.6 mm).
- A 2.5 mm Allen Key.
- Four Brass Wood Screws (3.5 mm x 25 mm).
- Four Wall Plugs (7 mm).
- An extra Fixed Address Label.

## General

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Remember the following when installing the Terminal:

### Communications Distance

The RS485 communications distance between the first ImproX Controller and the LAST ImproX unit in a cable run, MUST NOT exceed 1 km (1 094 yd). Achieve this by using good quality screened twisted pair cable, with the screen EARTHED at one end.

### Jumper Links

Long transmission lines or multiple “star” connections, may cause communication problems. Placing a Jumper Link across the jumper [LNK1] in the LAST UNIT AT THE END OF THE CABLE RUN should solve the problem.

### EARTH Connection

Connect the Terminal to a good EARTH point. Using the RS485 Port, connect the EARTH Lead to the ‘ETH’ Terminal. Mains EARTH can be used, but electrical noise may exist.

Blank Space

## **FCC Compliance**

For FCC compliance:

- Ensure the comms cable is routed through a separate grommet to the power cable.
- Ensure that you use a CE approved Power Supply Unit.

## **Mounting the Terminal**

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**CAUTION: Make certain that you mount the ImproX I16 on a vibration-free surface.**

Select the mounting position of the Terminal, considering accessibility, routing of wires and visibility of the externally visible LEDs.

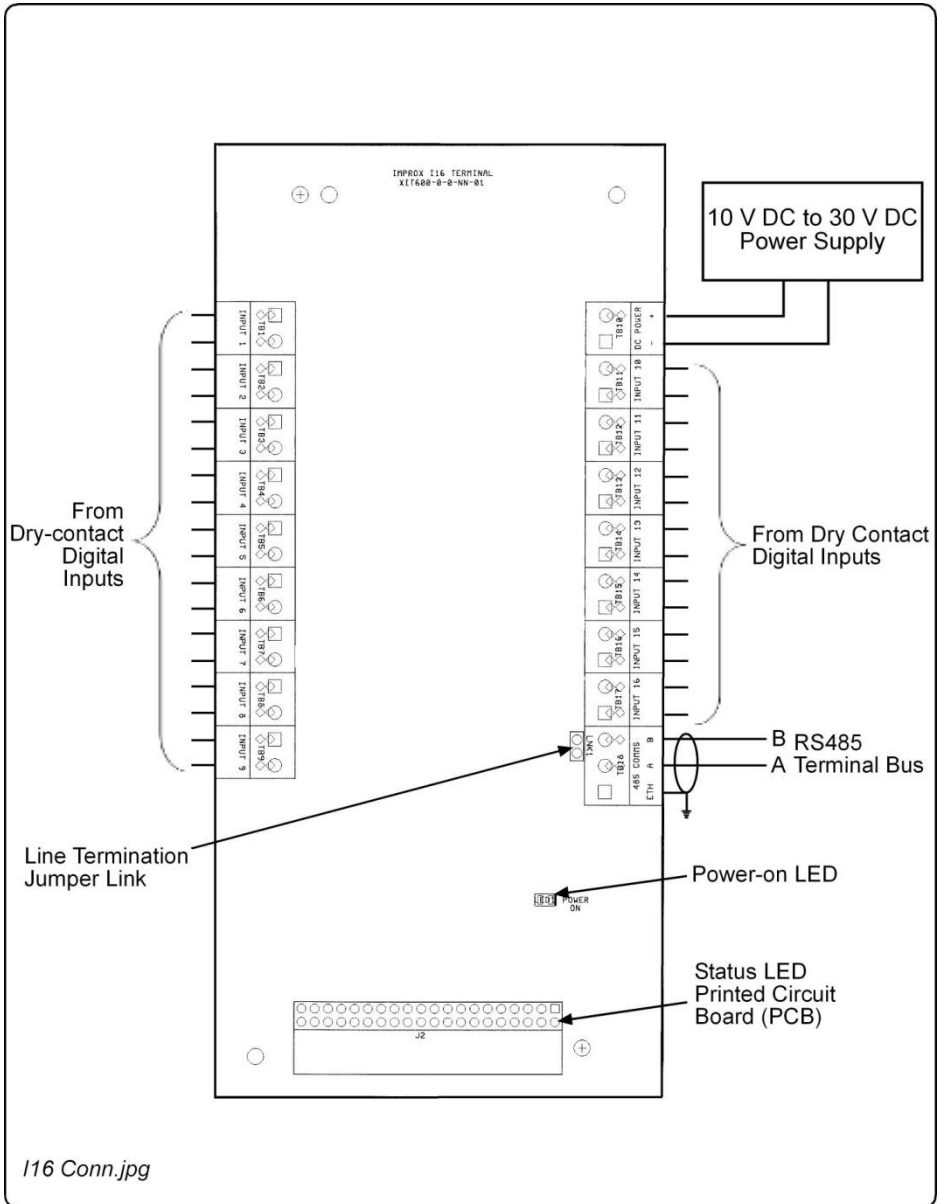
Secure the enclosure to the mounting surface, using four suitable screws and wall plugs (supplied), nuts and bolts or rivets.

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# ELECTRICAL CONNECTIONS

## Connecting the Terminal

Figure 2 shows a typical electrical connection diagram for the ImproX I16 Terminal.



**Figure 2: Typical ImproX I16 Electrical Connections**

## Fixed Address Label

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Once the ImproX I16 is installed, sketch a rough site plan. Attach the loose (additional Fixed Address Label packaged with the Terminal) Fixed Address Label in the position of the Terminal on the sketched site plan. When the system installation is complete and all the units are represented on the site plan by their Fixed Address Labels, file the site plan for future reference.

## GUARANTEE OR WARRANTY

This product conforms to our Guarantee or Warranty details placed on our Web Site, to read further please go to [www.impro.net](http://www.impro.net).

## USER NOTES

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This manual is applicable to the ImproX I16 16 Channel Input Terminal,  
XIT900-0-0-GB-00.

(The last two digits of the Impro stock code indicate the issue status of the product).

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