ImproX (EL) Etherlink

Overview

Introduction

The **ImproX (EL) Etherlink** forms part of the IXP300 or IXP400 ranges of access control products. The Etherlink Converter connects to the Host PC between the Ethernet and the respective system Controllers, converting Ethernet to RS485 required by the Controllers. The Etherlink Converter is designed to connect to up to 16 IXP300 Controllers or up to 64 IXP400 Controllers.

The Converter includes a single Blue “Power Indicator” (Power LED) and two “Diagnostic Indicators”. The “Diagnostic Indicators” show incoming and outgoing RS485 data.

The Converter is intended for indoor use only, and is therefore not waterproof.

Key Features

- Multi-drop up to 16 IXP300 Controllers or up to 64 IXP400 Controllers.
- Input voltage of 10 V DC to 30 V DC.
- A simple user interface consisting of two “Diagnostic Indicators” (showing incoming and outgoing RS485 data) and a single “Power Indicator” (Power LED).

Approvals

- CE Approved.
- FCC Approved.

Specifications

Physical

Dimensions		
Length	:	56 mm (2.20 in).
Width	:	116 mm (4.57 in).
Height	:	49 mm (1.93 in).
Approximate Weight	:	152.6 g (5.38 oz).
Housing Material	:	Aluminium.
Colour	:	Black.

Environmental

Temperature		
Operating	:	-25°C to +60°C (-13°F to +140°F).
Storage	:	-40°C to +80°C (-40°F to +176°F).
Humidity Range	:	0 to 95% relative humidity at +40°C (+104°F) non-condensing.
Approvals (Test Information)	:	EN301 489-3 EN301 489-1
Dust and Splash Resistance	:	Designed to work in an indoor (dry) environment similar to IP20. The Converter is, therefore, not sealed against water.
Drop Endurance	:	2 m (6.56 ft) drop (in packaging).

Electrical

Power Requirements			
Input Voltage	:	10 V DC to 30 V DC, polarity sensitive.	
Power Requirements		**Current (mA)**	**Power (W)**
Input Voltage 10 V DC	:	170	1.7
Input Voltage 30 V DC	:	55	1.7
Permissible Input Supply Ripple Voltage (Max)	:	1 V_{PP} at 50 Hz.	
Power Input Protection	:	Reverse polarity, over-voltage and over-current protection are provided on the Converter.	
Ethernet Port			
Connection	:	Standard Ethernet RJ45 connector. 10/100 Mbps, half or full duplex.	

RS485 Port		
Electrical Interface	:	RS485.
Baud Rates	:	9 600, 19 200, 38 400 (default), 57 600, 115 200 and 230 400 configurable via a web browser application.
Data Format	:	8 data bits, no parity, 1 stop bit.
Communications Protocol	:	ImproX Secure Communications Protocol. ASCII with 16-bit CRC checking.

Factory Default Settings

Default Baud Rate	:	Factory-set to 38 400.

Operator or Installer Interfaces

Installer Interfaces		
Power Indicator		
Power LED	:	Blue LED (externally visible).
Diagnostic Indicators		
Incoming RS485 Data	:	Flashing Green LED (internally visible).
Outgoing RS485 Data	:	Flashing Red LED (internally visible).

Interface Details

RS485 Port

The RS485 Port lets you connect the Etherlink Converter to other ImproX Controllers in your chosen IXP System. The interface is made by connecting the 'A' and 'B' lines on the ImproX EL to the 'A' and 'B' lines on the Controllers. Incoming and outgoing information on this Port is shown on the "Diagnostic Indicators" on the ImproX EL.

Installation Information

Accessories

You will find the following when unpacking your ImproX EL Converter:

- The ImproX (EL) Etherlink housed in a Black powder-coated Aluminium extruded Cabinet. The Cabinet will consist of a Top Cover and Base, sealed at each end with a Nylon End Plate, secured with 3 Thread Cutter Screws (M3 x 8 mm).
- One copy of Ethernet Device Configuration Utility Software on CD.
- Four Brass Wood Screws, 3.5 mm x 25 mm, Pan Head, Slotted.
- Four Wall Plugs, 7 mm, Plastic.
- A MAC Address Label.
- An extra Serial Number Label.

General

Remember the following when installing your ImproX EL:

Communications Distance

- The RS485 communications distance between the ImproX EL and the LAST ImproX Controller in the cable run, MUST NOT exceed 1 km (1 090 yd). Achieve this by using good quality screened twisted 2-pair cable, earthed on one side.
- The Etherlink plugs into an Ethernet Switch or Hub (or other network device), cable runs for this must conform to ethernet cabling specifications.

EARTH Connection

Connect the ImproX EL to a good EARTH point. Using the RS485 Port, connect the EARTH Lead to the “SHD” Terminal. Mains EARTH can be used, but electrical noise may exist.

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 Enclosure

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

Select the mounting position of the ImproX EL, considering accessibility, routing of wires and visibility of the externally visible LED.

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

Electrical Connections

ImproX EL Configuration

Figure 1 shows the Converters relationship with the rest of the ImproX product range.

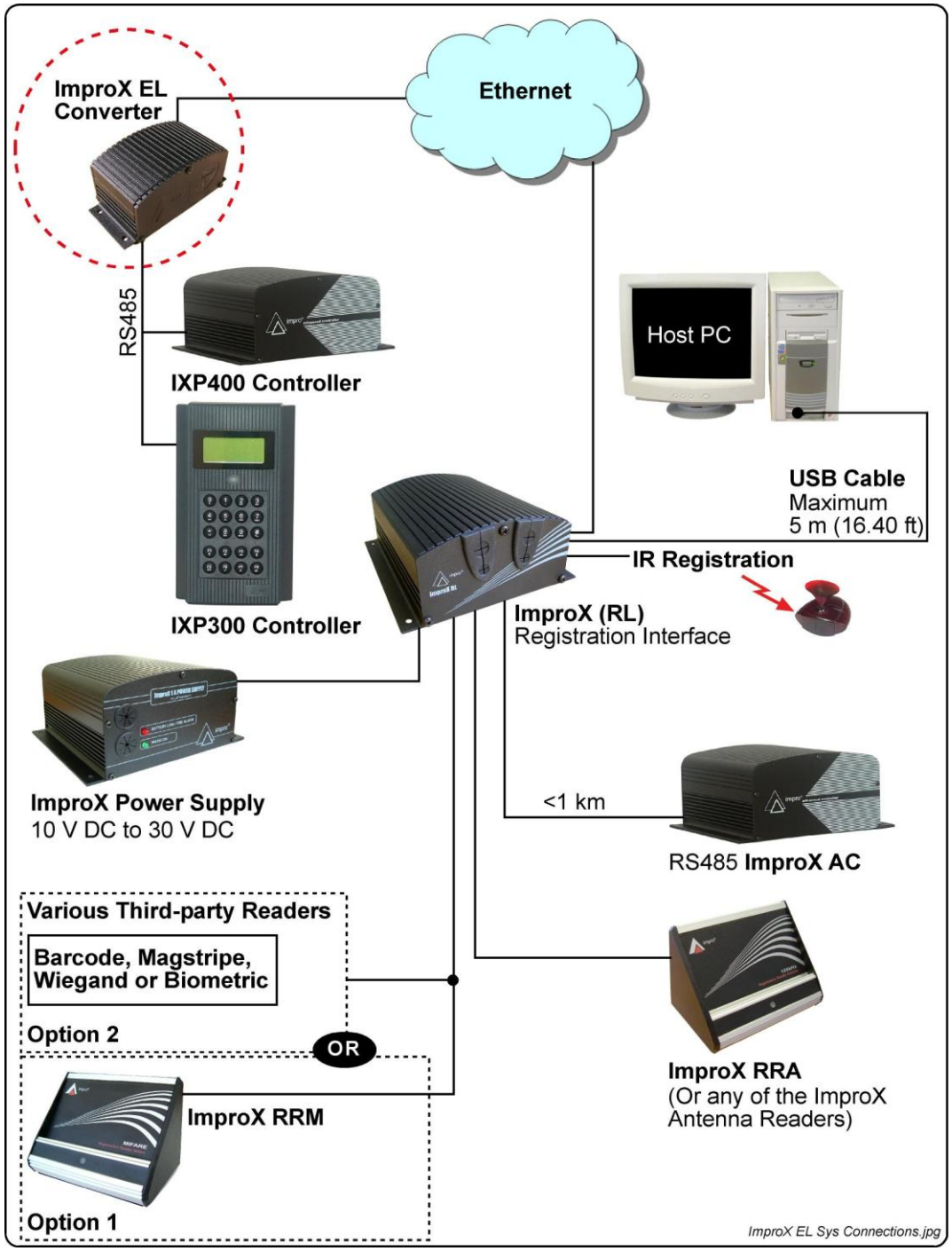

Figure 1: Configuration Diagram

Connecting the ImproX EL

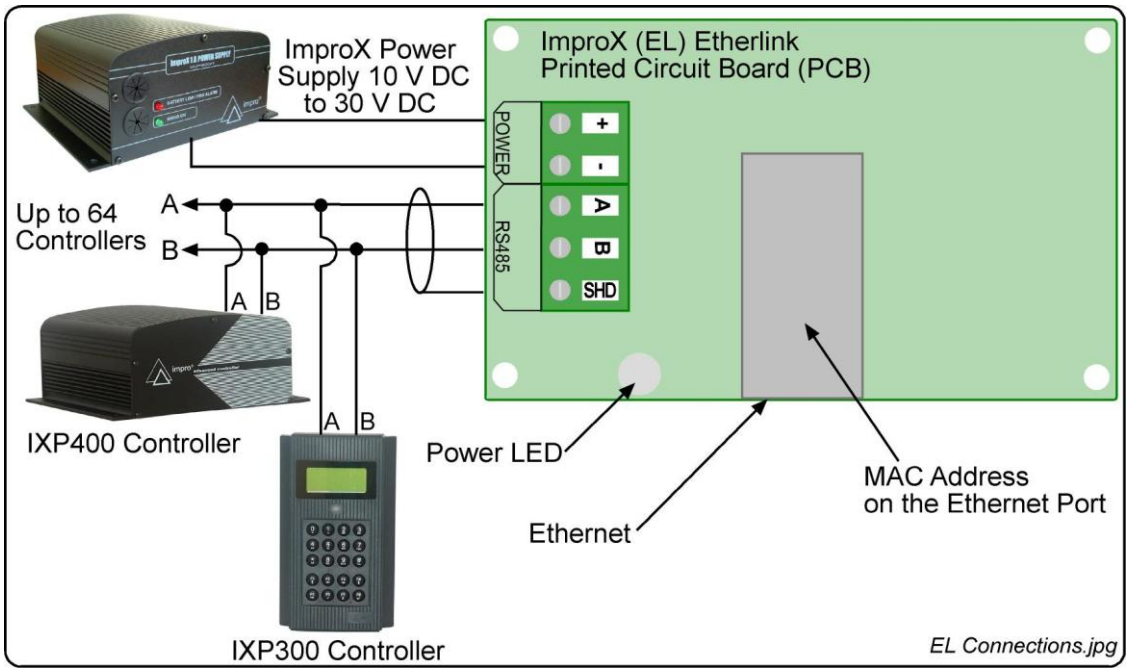

Figure 2: Typical ImproX EL Electrical Connections

Serial Number Label

The loose Serial Number Label (packaged with the ImproX EL) identifies the type of product and its Serial Number.

MAC Address

The MAC Address identifies the Lantronix® XPort™ component placed in each ImproX EL. The MAC Address and the description of the Etherlink's location are required by the Software Installer to enable an IP Address to be assigned to the Etherlink.

We recommend that you attach the MAC Address Label to the site plan in the Etherlink's installed location.

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.

Ordering Information

Order the ImproX (EL) Etherlink by quoting XEL900-0-0-GB-XX.

This manual applies to the ImproX (EL) Etherlink, XEL900-0-0-GB-03. (The last two digits of the Impro stock code point to the issue status of the product).			
XEL350-0-0-GB-06	Issue 07	January 2008	ImproX EL\Product Specification Catalogue\LATEST ISSUE\ImprX EL-psc-en-07.docx