



# ImproX I16

## Product Specification Catalogue

The **ImproX I16 16 Channel Input Terminal** is a general purpose hardware device for use within the IXP220 and ImproNet Access Control Systems, and for OEM applications.

The ImproX I16 provides sixteen Digital Inputs with optional End of Line Sensors for door open or closed sensing.

The Input Terminal communicates with a System Controller such as the IXP220 or ImproX EC<sup>II</sup> Controller via an RS485 Terminal Bus Port.

The ImproX I16 is housed in durable Aluminium, Black anodized Cabinet, sealed with Aluminium End Plates. The Input Terminal offers twenty LED Status Indicators which are visible through the Front End Plate.

The ImproX I16 offers features such as BMS (Building Management System) and Alarm Arming amongst others for greater control of your IXP220 or IXP400i site.

## Key Features

### General

- Sixteen Digital Inputs. These Digital Inputs let you interface with a variety of devices such as reed switches, push-buttons and alarm panels.
- Digital Inputs are user configurable and can perform specific tasks such as:
  - Door Open Sensing.
  - Request to Exit.
  - Scanner Inhibit.
  - Alarm Interface.
  - Action Request.
- An RS485 Terminal Bus Port.
- Operation from power inputs in the range 10 V DC to 30 V DC.
- An excellent user interface consisting of twenty LED Status Indicators.
- A Software utility to upgrade Firmware while installed on-site, without removal of the Terminal.
- A robust Aluminium Cabinet.

## ImproX (I16)

### 16 Channel Input Terminal

XIT900-0-0-GB-XX

## Physical Specifications

### XIT900-0-0-GB-XX

Length	: 194 mm (7.6 in).
Width	: 120 mm (4.7 in).
Height	: 58 mm (2.3 in).
Approximate Weight	: 465 g (16.40 oz).
Cabinet Material	: Aluminium.
Colour	: Black anodized.

## Environmental Specifications

Operating Temperature	: -25°C to +60°C (-13°F to +140°F).
Storage Temperature	: -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

CE Approval	: EN55022, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5 and EN61000-4-6.
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FCC Approval	: Yes.
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Dust & Splash Resistance	: 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.
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Drop Endurance	: 2 m (6.56 ft) drop (in packaging).
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## Electrical Specifications

### Power

Input Voltage	: 10 V DC to 30 V DC, polarity sensitive.
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Power Requirements	Current (mA)	Power (W)
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Input Voltage 10 V DC Indicators all OFF	: 46.3	0.47
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Input Voltage 30 V DC Indicators all OFF	: 19.7	0.6
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Input Voltage 10 V DC Indicators all ON	80	0.8
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Input Voltage 30 V DC Indicators all ON	31.3	0.95
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Permissible Input Supply Ripple Voltage (Max)	: 1 V <sub>pp</sub> at 50 Hz.
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Power Input Protection	: Reverse polarity and over-voltage protection are provided on the Terminal.
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### Terminal Bus

Electrical Interface	: RS485, ASCII with 16-bit CRC checking.
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## Terminal Bus (Continued)

Baud Rates	:	1 200, 2 400, 4 800, 9 600, 19 200, 28 800, 38 400 (default), 57 600 and 76 800 selectable via the Communications Protocol.
Data Format	:	8 data bits, no parity, 1 stop bit.
Communications Protocol	:	ImproX Secure Communications Protocol.
Unit Status	:	Slave.

## Digital Inputs

Input Type	:	16 Dry-contact Digital Inputs.
Protection Range	:	+80 V to -80 V single pulse, +35 V to -30 V continuous.

## Memory

RAM	:	2 KBytes.
Flash ROM	:	128 KBytes.

## Other

Anti-tamper Switch	:	Detects the opening of the Terminals Cabinet.
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## Factory Defaults

Baud Rate	:	38 400.
Mode	:	Receive (Slave Mode).

## User Interfaces

### Diagnostic 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).

## Related Information

For extra information relating to this product refer to the:

- ImproX I16 Hardware Installation Manual (XIT300-0-0-GB-XX).

## Ordering Information

Order the ImproX I16 16 Channel Input Terminal using the following Part Number:

- XIT900-0-0-GB-XX.

## Warranty Details

This product conforms to our Warranty details on [www.impro.net](http://www.impro.net).

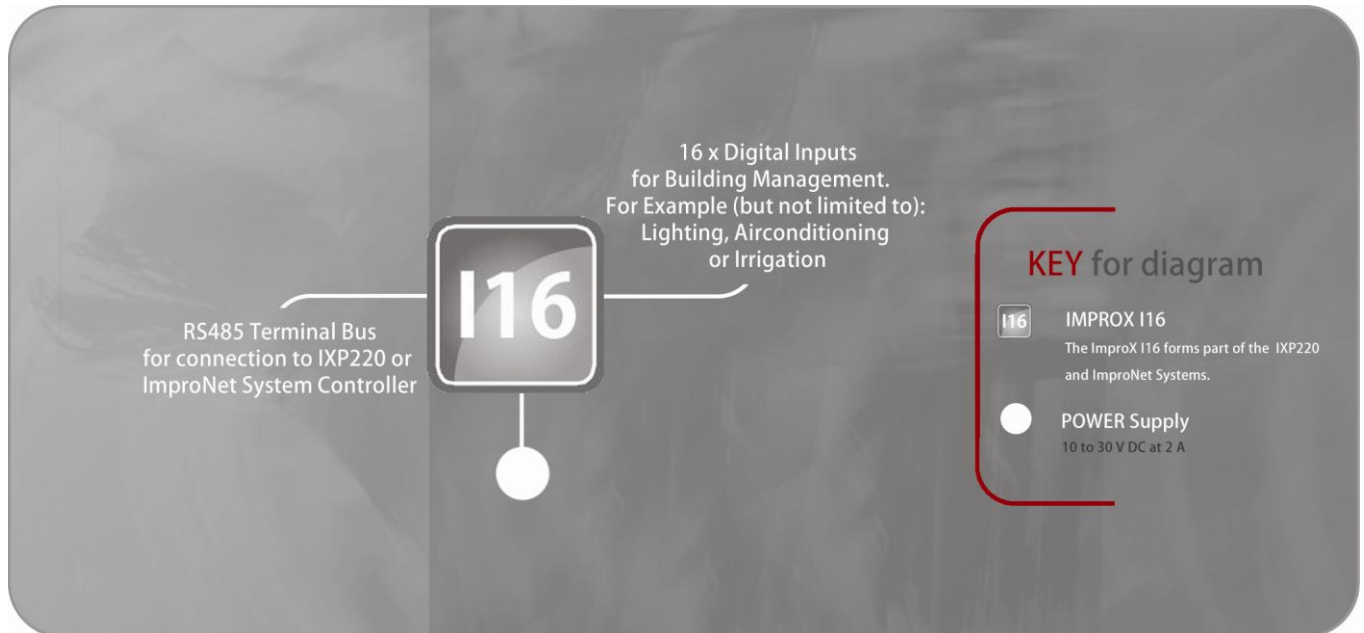


Figure 1: ImproX I16 Overview

This Product Specification Catalogue applies to the ImproX I16 16 Channel Input Terminal, XIT900-0-0-GB-00.  
(The last two digits of the Impro stock code point to the issue status of the document or product).

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