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ImproX SKA

Product Specifications Catalogue

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ImproX (SKA) 125 kHz SupaGate Keypad Antenna Reader



Overview

Introduction

The **ImproX (SKA) 125 kHz SupaGate Keypad Antenna Reader** is a compact, 125 kHz Tag Reader, designed for use with the ImproX SupaGate range of Controllers.

The Antenna Reader offers the operator or installer an interface consisting of a single tone Buzzer and a single bi-coloured Red or Green Status LED.

The Antenna Reader is intended for indoor or outdoor use. The electronic components are fully potted in a Black tinted, Polycarbonate Plastic Cabinet. The potting compound prevents vandals tampering with the electronic components.

The ImproX SKA has a 12-button alphanumeric Keypad for PIN-code entry.

Key Features

- A single bi-coloured Red or Green Status LED.
- A single tone Buzzer.
- A 12 button alphanumeric Keypad.
- Operates at a frequency of 125 kHz.



Tag Read/Write Ranges

The range that the Antenna Reader can read a Tag depends on the type of Tag and material on which the Antenna Reader is mounted.

Typical ranges are shown in Table 1.

Tag Type	Typical Range (Minimum) (Antenna Reader mounted on non-metallic surface)	
	(mm)	(in)
ISO Credit Card (Slim)	25 – 76	1 – 3
NOTE: <i>Mounting the Antenna Reader on a metallic surface will reduce the Tag reading range slightly.</i>		

Table 1: Typical Read Ranges

Approvals

- CE Approved.
- FCC Approval Pending.

Specifications

Physical

Dimensions	
Length	: 88 mm (3 in).
Width	: 60 mm (2 in).
Height	: 24 mm (1 in).
Approximate Weight	
	: 168 g (6 oz).
Housing Material	
	: Polycarbonate.
Colour	
	: Black tinted.

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)	
	: EN 300 330-1. EN 301 489-3.
	<i>NOTE: Tested in conjunction with the ImproX SupaGate 4-Channel Controller.</i>
Dust and Splash Resistance	
	: Designed to work in an indoor or outdoor environment similar to IP53. The ImproX SKA is, therefore, sealed (potted) against water.
Drop Endurance	
	: 2 m (7 ft) drop (in packaging).

Operator or Installer Interfaces

Buzzer	
	: Single tone, 4 kHz.
Keypad	
	: 12 Alphanumeric keys.
Status Indicators	
Status LED	: Bi-coloured Red or Green.

Installation Information

Accessories

You will find the following when unpacking your ImproX SKA Antenna Reader:

- An ImproX SKA Antenna Reader housed in a Black tinted, Polycarbonate Plastic Housing. The ImproX SKA consists of the Front Cover Antenna Reader Assembly (fully potted) and a Backing Plate. The Front Cover Antenna Reader Assembly includes a 2 m (7 ft) shielded multi-strand 3-pair twisted open-ended connection cable.
- Four Brass Wood Screws (3.5 mm x 25 mm).
- Four Wall Plugs (7 mm).
- An extra Serial Number Label.

General

Remember the following when installing your Antenna Reader:

Antenna Reader Distance

The ideal cable distance between the ImproX SupaGate Controller and the ImproX SKA ranges between 2 m to 16 m (7 ft to 53 ft). Achieve this by using a good quality shielded multi-strand 3-pair twisted cable. The cross-sectional area of the cable must not be less than 0.2 mm² (0.0003 in²).

Cable Specifications

The cable specifications should be similar to the following:

- Conductor Resistance: < 2 ohms.
- Capacitance, Core to Earth: < 160 pF/m.
- Capacitance, Core to Core: < 100 pF/m.

Distance between Antenna Readers from DIFFERENT SupaGate Controllers

To avoid mutual interference, install the Antenna Readers no closer than 500 mm (20 in) apart.

Mounting the ImproX SKA

CAUTION: Once clipped together, separation of the Backing Plate and Front Cover is likely to cause damage to the Antenna Reader.

Select the mounting position of the ImproX SKA Antenna Reader, considering accessibility, routing of wires and visibility of the externally visible Status LED.

Secure the ImproX SKA to the mounting surface, using four suitable screws and wall plugs, nuts and bolts, rivets or double-sided adhesive tape.



Cable Exit Hole

The Antenna Readers design offers one cable exit hole through the centre of the Backing Plate. Use the Backing Plate as a template to mark the drilling position of the cable exit hole.

Mounting the Front Cover onto the Backing Plate

1. Feed the cable supplied through the centre hole in the Backing Plate, through to the other side of the mounting surface.
 2. Pull the cable until the Front Cover meets the Backing Plate.
 3. Push the Front Cover towards the Backing Plate until it clips securely.
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Electrical Connections

Connecting the ImproX SKA Antenna Reader

CAUTION: The ImproX SKA only connects to the ImproX SupaGate range of Controllers. The ImproX SKA will NOT operate with the ImproX (TT) Twin Antenna Terminal, the ImproX (MfT) Multi-function Terminal or the ImproX IXP121 Controller.

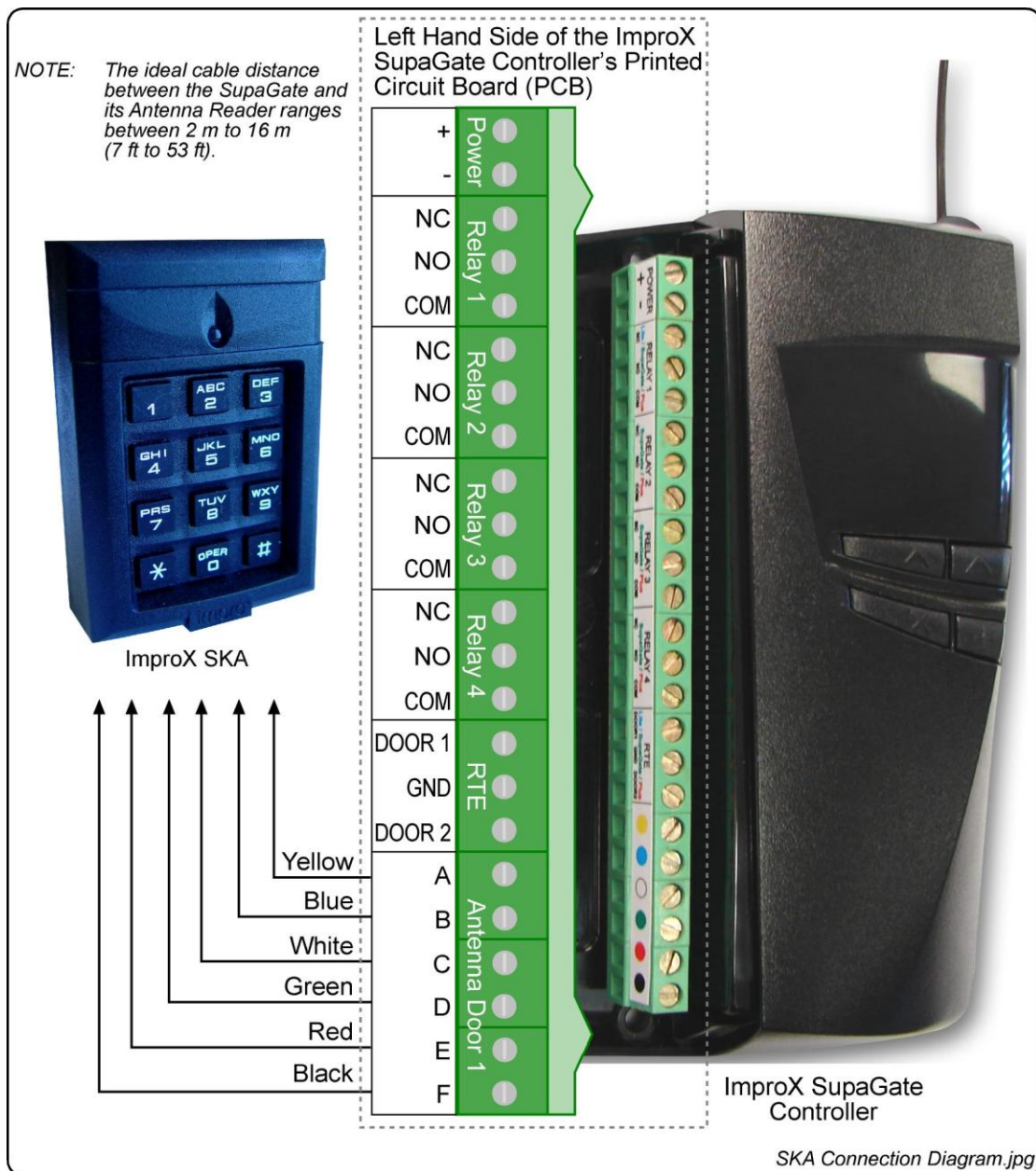


Figure 1: Typical ImproX SKA Electrical Connections

NOTE: On powering up, the Antenna Reader will produce a beep sound and the Status LED will illuminate solid Red.



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Part Number: SGI913-1-0-GB-XX

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 (SKA) 125 kHz SupaGate Keypad Antenna Reader using the SGI913-1-0-GB-XX product code.



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Part Number: SGI913-1-0-GB-XX

This manual applies to the ImproX (SKA) 125 kHz SupaGate Keypad Antenna Reader, SGI913-1-0-GB-00.
(The last two digits of the Impro stock code point to the issue status of the product).

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