PAC21x1 Operation /Installation manual

Ver1.2

Version History

Date	Version	Description of Changes	Author
22-Dec-11	1.0	Initial version – Draft	Sixtus
25-Jan-12	1.1	Updated the label and the FCC Class B related declarations	Sixtus
10-Feb-12	1.2	Updated the label location and declaration as per request form EMV testhaus	Sixtus

Contents

1.   Introduction

This document details the Physical Access Control Smart card reader PAC21x1 and the installation procedures.

2.   Reader

The reader consists of the following parts.

2.1   Top Casing

2.2   Bottom Casing –Potted reader with Pigtail Cable

3.   Product details

Model Name   : PAC21X1 (PAC2131 and PAC 2111) *****

Device Type   : RFID reader, 13.56MHz (HF) / 125KHz (LF)
                                               Physical Access control   Reader (accessory equipment)

Type of equipment   : Outdoor use, potted reader, Wall mounted

Cable Type   : Pigtail Cable , 11 Core + Drain wire.

Rating   : 5-16V DC (Low voltage)
                                               ; Pk Current – 200mA. , Average Current 130mA

Communication protocol   : Wiegand, RS485 (2 wire- Half Duplex).

* PAC2131 is the full configuration reader with HF and LF interfaces.
PAC2111 is a sub set of PAC2131 with only HF interface. All other interfaces and the mechanicals remain same.

4.   Installation details

4.1   Parts Included

- PAC21X1 reader -1 (2 piece plastic ie Top casing and Potted Bottom casing with Pigtail cable)
- Steel Screw -1 (PH #3x8) – Top casing screw
- Steel Screws -2 (#4-24x3/4")
- Nylon Anchor Plug – 2

4.2   Recommended Infrastructure

- Wiegand cable (11 core** + Drain , 22AWG for 500Ft or 24AWG for 300Ft)
- Linear DC power Supply 6-16 V, 1A min.

** Note: The number of cores on the cable can vary depending on the actual field requirement. On a minimum 6 Cores + Drain is recommended (Power 2, Wiegand outputs -2, Wiegand Inputs- 2)

4.3   Specifications

| Model Number	Op Voltage	Current	Op temp	Cable Length
PAC21X1	5-16 V Dc	Av -130mA Pk -200mA	-35 to +70Deg C	RS485 - 4000Ft Wiegand -500ft (22AWG) 300ft (24AWG)

4.4 Wiring Information

Pig Tail Cable Color	Function
RED	+ VDC
Black	GND
Green	Wiegand output D0
White	Wiegand output D1
Orange	Wiegand Green LED Input
Yellow	Wiegand Buzz Input
Blue	Input2
Brown	Input1
Grey	RS485 -
Pink	RS485 +
Violet	Tamper Output
Black Shrink Tube	Drain Wire

Caution:
During Wiring make sure that the +VDC lines does not make contact with any other cables, as it might affect reader functionality/ cause damage to the reader.

4.5 Mounting the Reader

a. Make two holes on the wall at a vertical distance 80 mm apart to match with the mounting holes on the Bottom casing.
b. Insert the nylon screw plugs into the wall.
c. Connect the wires on the pigtail cable to the corresponding wires in the cable from the wall.
d. The Bottom casing which is potted is to be now secured onto the wall using the screws supplied. Once the bottom unit is secured onto the wall, the top casing can be inserted onto the bottom casing. Ensure that the LED opening on the top casing is aligned with the LED in the bottom casing.
e. Secure the Top and bottom casing by the #3x8 screw at the slot on the lower side of Top casing.
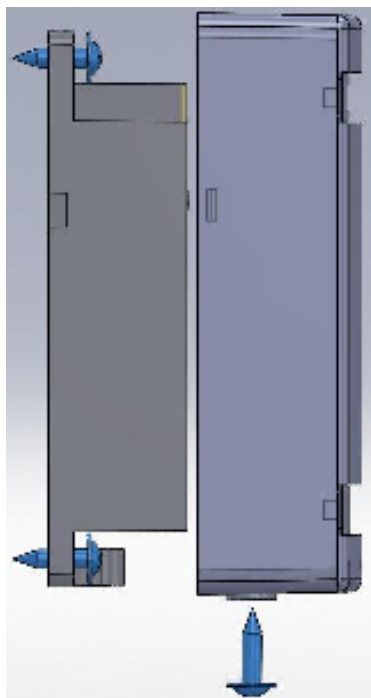
4.6 Power up ad Testing

a. Power Up the reader by connecting the DC power supply at the other end of the cable.
b. The reader beeps long once and blinks red for approximately 30 secs.
c. After this the LED glows RED .
d. Now the reader is in the functional mode.
e. Flash a contactless card on the reader top surface. The LED will blink Green and then turn back to Red, to indicate that the card is detected**.
f. The buzzer will make a short Beep to indicate that the card is detected**.

** This behavior is the default reader behavior. This may vary depending on the feedback available from the control panel on LED (orange wire) and Buzzer Input Lines (Yellow wire).

5. Certifications

5.1 CE Marking

Identive hereby declares that the PAC21X1 devices mentioned herein are in compliance with the essential requirements and other relevant portions of the Directive R&TTE 1999/5/EC.

5.2 FCC Marking

Labeling requirements

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

 -- Reorient or relocate the receiving antenna.
 -- Increase the separation between the equipment and receiver.
 -- Connect the equipment into an outlet on a circuit different
  from that to which the receiver is connected.
 -- Consult the dealer or an experienced radio/TV technician for   help

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Information to user

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC ID – MBPPAC21X1-001

6. Product label

For reference purposes only.

6.1 Location of the label.

The label is placed on the top surface of the bottom casing as indicated in the figure below.