



**User manual for
uTrust TS KEYPAD
Physical Access Control Readers**

Version 1.4

8210

Confidential

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Document History

Version	Date	Description of Change	Author
1.0	03-June-15	Initial version	Suresh Kumar T
1.1	12-Oct-15	Wiegand section, temp profile, outdoor section modified.	Suresh Kumar T
1.2	26-Oct-15	Document modified as per inputs from UL	Sudhan Immanuel G
1.4	25-Apr-18	Updated comments from UL wrt to UL1076	Sixtus Stanly

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1.0 Introduction

This document details the Physical Access Control Reader **uTrust TS KEYPAD** and its basic user instruction and installation procedures.

2.0 Reader

2.1 Functionality

TS KEYPAD reader is a physical access control smart card reader that can read HF and LF contactless credentials, conforming to the following standards: ISO 14443 A & B, ISO15693 with a keypad PIN entry for additional security. The reader can interface with an access control system equipped with a Wiegand or RS485 serial interface. User interfaces include RGB LED's and Buzzer.

2.2 Front/Top Casing



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2.3 Back View/plate



Standard version



Back plate

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3.0 Product details

Model Name : uTrust TS keypad

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

Type of equipment : Potted Reader, Suitable for Indoor use

Interface Type : Phoenix connectors

Voltage Rating : 6-16V DC

Current Rating @12V : Peak Current – 157 mA, Average Current 110 mA

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


4.0 Specifications


Model	Operating Voltage	Current @ 12V	Operating temperature	Operating humidity
8210 uTrust TS KEYPAD	6-16 VDC	Av -110 mA Pk -157 mA	0 to +49C	85 +/-5 % RH

5.0 Label

IDENTIV uTrust TS Keypad Reader

BAR CODE TYPE 128
PPPPYYWWMNNNNN








SCAN QR CODE
FOR PRODUCT INFO

S/N: 8210YYWWMNNNNN P/N: 8210

MODEL: 8210
FCC ID: MBPTSKP-02
IC: 7485A-TSKPR2

Voltage I/P: 6 to 16 VDC
Current Rating @12V:
110mA Av
157mA Pk

**ACCESS CONTROL SYSTEM
ACCESSORY UNIT**

ORANGE	LED GRN
WHITE	DATA1
GREEN	DATA0
BLACK	DRAIN
BLACK+ WHITE	GND
RED	PWR

Patents and Patents pending
Made in xxxxxxxxx
by Identiv

HOLD	BLUE
TAMPER	VIOLET
RS485-	GRAY
RS485+	PINK
BUZZER	YELLOW
LED RED	BROWN

Caution:

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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.

6.0 Installation details

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction.

6.1 Parts List

- TS Keypad reader -1
- Screws (A #6-18X1.5" SS) - 4Nos – Back Plate mounting screws for Wall
- Snake Eye Screw (SMF #6-32X5/16" SS) – 1 No- Top casing mounting security screw
- Screws (SMF #6-32x3/8" SS) - 3 No's - 1 casing to back plate mounting screw and 2 Junction Box mounting screws
- Nylon anchor plug -4 No's
- 6 pin phoenix plug (Phoenix connector version only) – 2 No's
- Back Plate

6.2 Recommended Infrastructure

All cabling and wiring shall be UL Listed and/or UL Recognized.

- Cable Wiegand - 22AWG Shielded cable. (Cable P No : ALPHA WIRE, P/N 1299/10C)
- Cable RS485 - RS485 for 1000m** (4000ft) 24AWG STP
- Class 2 Linear DC PS - 6-16 V, 1A min

** Tested in lab conditions up to 115Kbaud

6.3 Connector Information

6.3.1 Pinout diagram

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Pin Number	Pin Function	Wire Color
P1.1	LED Green	Orange
P1.2	Wiegand Data 1	White
P1.3	Wiegand Data 0	Green
P1.4	Shield Ground/ Drain	Black
P1.5	Ground	Black & White
P1.6	+ 12 VDC (nominal)	Red
P2.1	Hold	Blue
P2.2	Tamper Output	Violet
P2.3	RS485 –	Grey
P2.4	RS485 +	Pink
P2.5	Buzzer	Yellow
P2.6	LED Red	Brown

- **Shield Ground/ Drain – Black color should be connected to the cable shield.**

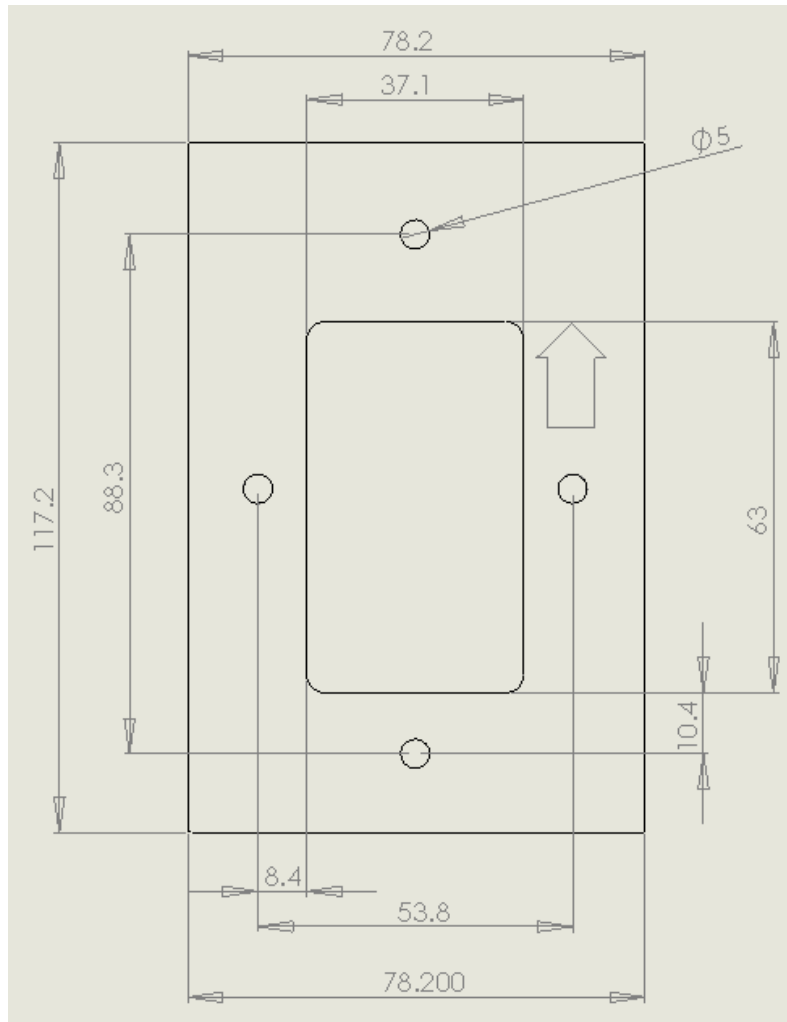
Caution:

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.

6.4 Mounting the Reader

6.4.1 Location of mounting holes on wall

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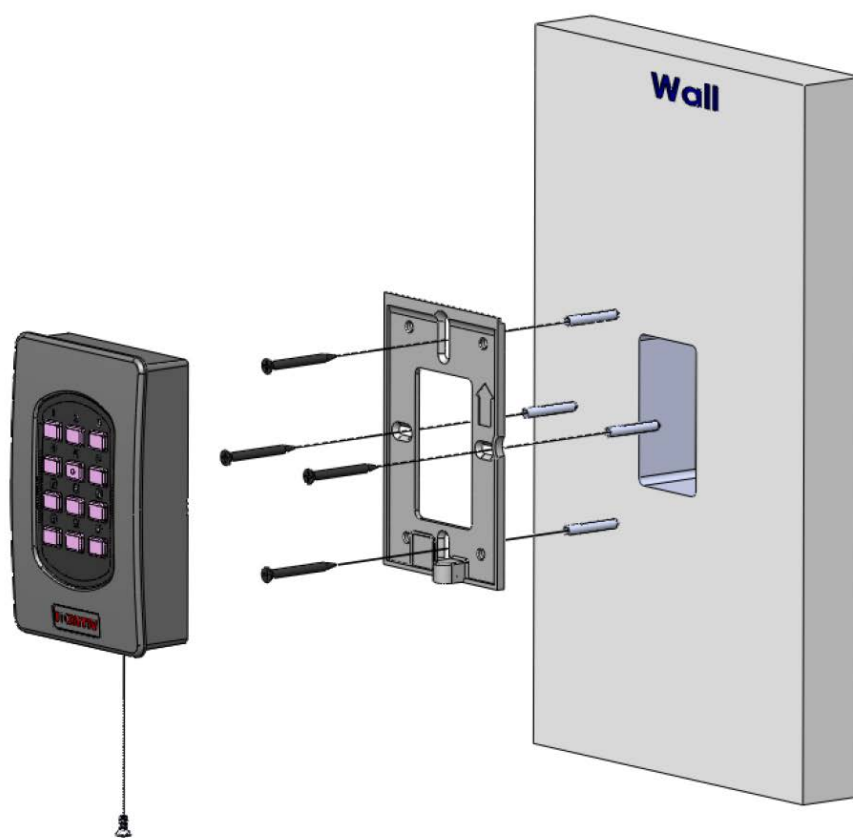


Phoenix connector Reader – 4 Holes and 1 Slot

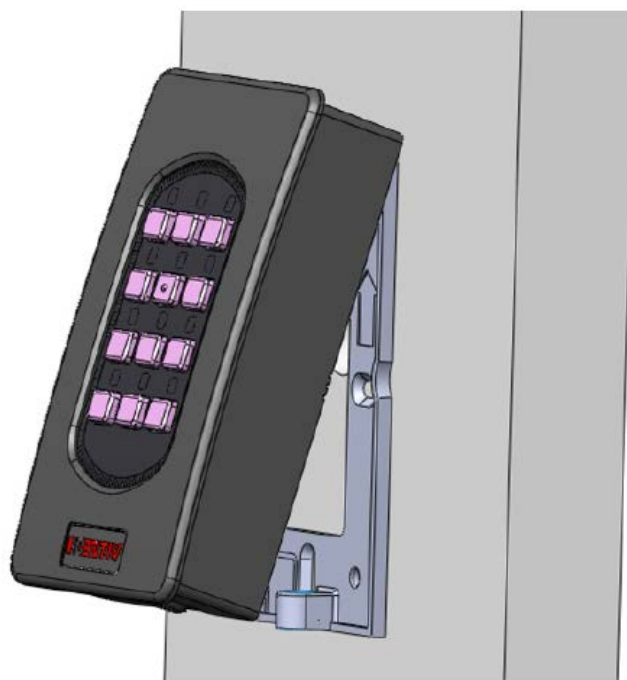
6.4.2 Reader Installation Steps

- a. Make holes on the wall as per the image above.
- b. Insert the nylon screw plugs into the wall.
- c. Connect the wires as per the Table 2 or Table 3.
- d. TouchSecure® reader with Bottom Casing is to be now secured onto the wall using the Screws (A #6-18X1.5" SS)
- e. The top casing can be inserted onto the bottom casing
- f. Secure the Top and bottom casing by the Snake Eye Screw (SMF #6-32X5/16" SS)

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Install Reader to Backplate



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7.0 Power up and Testing

- 1 **Turn power on**
The LED blinks 3 times green with a long beep, then turns red
- 2 **Present a card**
The LED blinks green, and a short Beep is emitted
- 3 **Press Key**
Buzzer tone & backlight LED blinks
- 4 **Wiegand / RS485**
Communication to the Panel is done through Wiegand / RS485 / OSDP.

This is the default reader behavior.



Turn power on.



Test with card.

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8.0 Certifications

8.1 FCC

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

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.

Information to user

Changes or modifications not expressly approved by *Identiv* could void the user's authority to operate the equipment.

8.2 IC

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

8.3 UL 294 and UL 1076

- Communication via Wiegand was evaluated by UL and serves as the interface between the reader and panel
- When the reader is powered by a supply other than Identiv Mx series controller, the power supply should be a UL 294 and 1076 listed , class 2 supply.
- For UL 1076, the reader was assessed for the acknowledgment signal annunciation while interfacing to the Listed Identiv Mx series control unit via Wiegand only.

8.3.1 UL 294 access control performance levels

Destructive attack	: Level IV
Line Security	: Level I
Endurance	: Level I
Standby Power	: Level I