RFID Readers

By providing a choice of credential technologies that includes standard Proximity (125 kHz), Smart (13.56 MHz) and Bluetooth®, customers have the ability to set their own migration path to secure credentials. With both Wiegand and Serial versions, these RFID readers are capable of working with a wide variety of legacy access control panels.

Key Features

- Inbuilt support for SafeAccess, providing secure mobile authentication at the door over BLE.
- Patent Pending Metal Wall-Plate Mounting Scheme: The mounting plates act as a shield to ensure that credentials on the secure side of the door are not read as well as provides consistent read range regardless of the reader mounting surface.
- Tristate LED Light Bar (red, green, amber) and Buzzer.
- “Foolproof” Accelerometer-Based Tamper Detection.
- Smart cards supported: Mifare® Classic, Ultralight, Mifare Plus, DESFire EV1, DESFire EV2.
- Proximity, LEAF, and Mobile Credentials Supported.
- Environment Flexibility: Accommodates indoor, outdoor, and various other installation environments.

Specifications

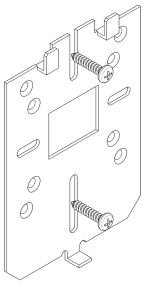
Mullion Reader	3008	3009	3010
Single Gang Reader	3008	3008	3008
Keypad Reader	3008	3008	3008
125 kHz	X		X
13.56 MHz		X	X
Bluetooth	X	X	X

Current (mA)	3008, 3009, 3010: 106 mA average, 144 mA peak 3011, 3012, 3013: 118 mA average, 169 mA peak 3014, 3015, 3016: 143 mA average, 193 mA peak
Voltage	5-16 V DC
Dimensions	3008, 3009, 3010: 5.1" x 1.7" x 0.71" 3011, 3012, 3013: 5.1" x 3.25" x 0.71" 3014, 3015, 3016: 5.1" x 3.25" x 0.71"
Read Range	Configurable BLE Read Range Up to 100ft Pros Up to 4", Mifare up to 3.5"

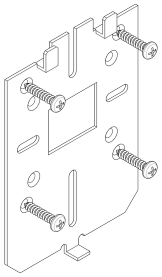
Installation

1) Install Metal Wall Plate to Single Gang Box

Connect the wall plate to the single gang box using the provided #6 screws. Alternatively, you can use the provided #4 screws in the four outer holes for other installation requirements. Drywall installations will require molly bolts.



Standard Single Gang Box Installation



Alternative for situations outside of a single gang box installation

2) Wire the Cable to the Control Panel

Common Cable Connections

Red	**Power In**
Black	**Ground**
Shield	Shield Ground
Brown*	Tamper Out
Green	Wiegand Data0/RS 485B
Yellow*	Beeper Control
Blue*	Green LED Control
Orange*	Red LED Control

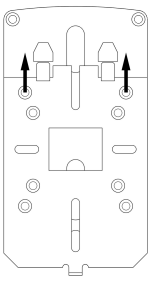
Max Length to Panel

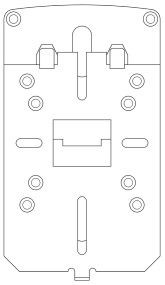
Length	**AWG**
200" (60m)	22
300"	20
500"	18
Current @ 12 V and 25 C	
Avg. mA	**Max. mA**
140	190

* These wired are only used in Wiegand readers.

3) Attach the Reader to the Wall plate

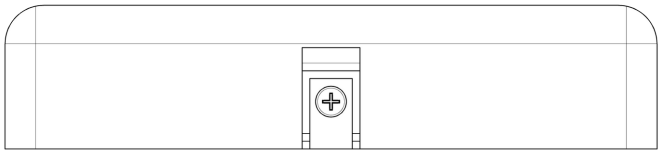
Align the reader so that the tabs of the base plate slide into the slots on the wall plate and slide the reader into position.





4) Install the Reader Screw

Install the #4-40 screw or pin-in-torx at the bottom of the reader.



5) Test the Reader

Power the reader and wait for the power up LED beep sequence to complete. Present a valid credential to the reader and the light-bar will turn green.

Installation tips:

When connecting the reader to a Wiegand panel, simply connect the Green wire to Data 0, and the White wire to Data 1, to enable Wiegand communication. When connecting the reader to an OSDP panel, connect the Green wire to RS485A, and the White wire to RS485B. Verify that the panel is successfully communicating with the reader prior to reading a badge or pressing a key.

The number of beeps during the power-up reset sequence indicates what mode the reader is in:

- 4 beeps (with green LED flash) indicate that the reader is in Wiegand communication mode (with OSDP auto-detect).
- 2 beeps (with green LED flash) indicate that the reader is in OSDP-only communication mode

By default (out-of- the-box) the reader will transmit credential and keypad data in Wiegand communication mode. Upon each power up, and before the reader reads a credential or a key is pressed, the reader will be listening for an incoming OSDP message. If a message is received during this period, the reader will automatically switch to OSDP-only communication mode. To return to OSDP auto-detect mode, tilt the reader 45 degrees to simulate tamper and cycle power in this state. The power up sequence should indicate OSDP auto-detect with 4 beeps.

Upon a power reset, the RFID readers provide a reset sequence using the LED indicator and the beeper, to provide information about the reader type and its communication mode. The first sequence (sequence A) describes the credential technologies built in the reader:

- A single red LED flash indicates Bluetooth credential support
- A single green LED flash indicates 13.56 MHz credential support
- A single amber LED flash indicates 125 kHz credential support

Sequence A is followed by sequence B. Sequence B indicated the reader communication protocol:

- Two beeps (with green LED Flash) indicate that the reader is in OSDP-only communication mode
- Four beeps (with green LED Flash) indicate that the reader is in Wiegand communication mode (with OSDP auto-detect)

*Technical data subject to change without notice. To order, contact sales@safetrust.com.