# Installation and User Instructions for S822 Readers

The S822 is a contactless smart-card reader, which uses 20mA current loop pseudo-random communications. The S822 is able to read HID® i*CLASS*™ smart cards, and the card serial number on Philips® MIFARE® smart cards.

For either type of card, the S822 supports the use of unencoded cards (where only the unique card serial number is read). In the case of HID i*CLASS* cards, an encoded card number can be read. Encoding formats supported include HID's own formats and the "smartMAX" format.
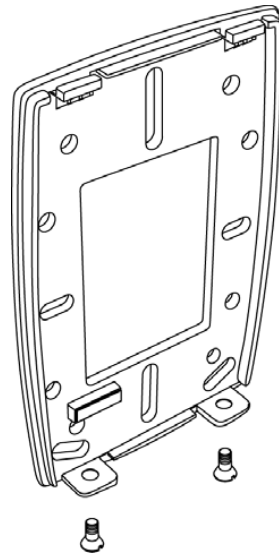
**1**     **Mount the Backplate**

The backplate has suitable holes for connection to most standard electrical backboxes.
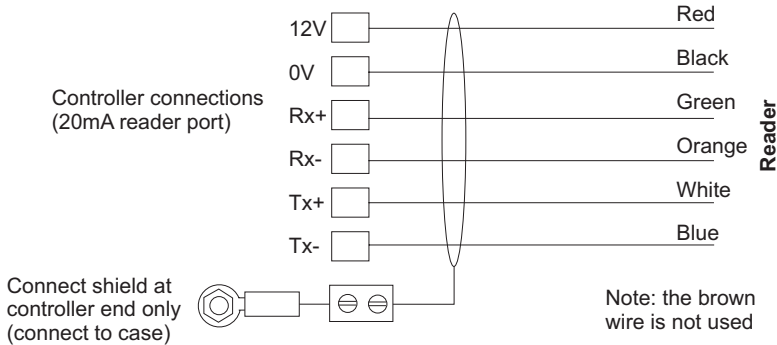
To mount the backplate:

1)  Detach the main body of the reader from the backplate by releasing the two securing screws along the bottom edge of the reader.

2)  Mount the backplate adjacent to the opening edge of the door and at a convenient height. Feed the cable to the reader through the backplate.

**2**     **Reader Connections**

## 20mA Current Loop Reader Connections

| Controller connections (20mA reader port) | | Reader |
|---|---|---|
| 12V | | Red |
| 0V | | Black |
| Rx+ | | Green |
| Rx- | | Orange |
| Tx+ | | White |
| Tx- | | Blue |

Connect shield at controller end only (connect to case)

Note: the brown wire is not used

**3**     **Using the Reader**

Present the card face-on to the reader until you hear a "bleep". If the green indicator is lit, the card has been accepted and the door is unlocked. If the red indicator is lit, either the card has not been accepted, or you do not have access through the door. If the read and green indicators flash alternatively, please wait.

**Note:** cards can be presented in rapid succession - there is no need to wait for the green or red LED to extinguish before presenting another card.

**Specifications**
Input voltage: 9-14V.
Input current: 100mA @ nominal 12Vdc supply.
Operating temperature: -13 to 158°F (-25 to 70°C).
Operating humidity: 15 to 90%, non-condensing.
Maximum read range: 2.5" (65mm).
Approvals: EN50133, R&TTE, IP656.