

## tSec Standard Card Reader

The tSec Standard Card Reader provides a complete multi-technology smart card RFID solution. Compatible with all Wiegand data capable control systems and incorporating RS-485 communication, tSec Readers allow rapid deployment of secure technology in any environment.

Available in multiple card capabilities (13.56MHz and 125kHz), with an optional keypad, and in a choice of black or white, you can select the model to fit your needs and your decor.



### Feature Highlights

- > Multi card technology provides support for DESFire, MIFARE, and 125kHz cards from a single reader
- > Encrypted RS-485 or standard Wiegand connection
- > Optional Bluetooth / NFC credential reading
- > Configurable LED strip: 2 color control (blue and green) via external LED wiring, 16 color selectable for Protege function codes (RS-485 connection only)
- > Fully encapsulated design with environment IP Rating of IP65 for outdoor and indoor operation
- > Read range up to 60mm (2.36") with proximity ISO cards
- > Optional Vandal Resistant Cover
- > Built-in clone detection when using ICT Secured MIFARE

### Multi Card Technology

Available with 13.56MHz smart card capability, or as a multi technology reader that combines both 125kHz proximity and 13.56MHz capabilities in a single unit delivering maximum compatibility while providing a path forward to the latest technology. The multi technology reader is ideal for organizations that wish to transition to smart technology at their own pace, as it means they don't need to replace all their cards upfront.

### Bluetooth / NFC Credential Reading

Optional Bluetooth / NFC capability enables you to use your smartphone as your access credential for maximum convenience.

Equipped with support for most modern iPhone and Android devices, you can unlock the door using a unique access credential that is supplied by the Protege Mobile App, entered against your user record in Protege, and authenticated by a secure cloud based server.

### Flexible Communication

Choose between the intelligent RS-485 connection for fast, flexible, secure communication, or Wiegand for compatibility with all standard access control systems. RS-485 provides the added benefits of being easier and more cost effective to wire and deploy, and allows for direct integration with Protege systems enabling you to make changes on the fly once readers are installed. RS-485 also allows for longer cable runs and offers a simpler firmware update process.

### IP65 Protection

The IP65 environmental rating provides a high degree of protection from the elements, making the reader suitable for harsh environments. Readers can be mounted indoors or outdoors, located anywhere from the car park gate to the office door.

### Clone Card Detection

Built-in clone detection when using ICT Secured MIFARE means that even while it may be possible to copy a single MIFARE credential, use of that credential is detected and prevented.

Clone card detection operates in the following modes:

- > **Clone Card Read** detects that a clone card has been presented but continues normal operation.
- > **Clone Card Destroy** detects that a clone card has been presented and modifies the card so that it can no longer be read.

### Configurable LED Strip

The tSec reader provides the ability to change the color of the LED strip (16 colors available) to show when a function has started, succeeded or failed. For example, when a function is used to arm an area, you can set the LED to change to purple to show that the function has started, yellow to show that the area has armed successfully, and red to indicate that the function has failed.

This feature is only supported when the reader is wired using RS-485.

### Optional Vandal Resistant Cover

Designed to withstand some of the harshest settings, the optional vandal resistant covers are ideal for locations where a card reader may be exposed to damage, including corridors, parking buildings, correctional facilities, and other public places. Highly resistant to impact, such as from the swing of a hammer or baseball bat, its robust construction provides greater durability and protection against vandalism and malicious damage. The flush design also serves as an anti-ligature measure for an additional level of safety.



#### Keypad Support

Regular keypad variations of the tSec range do not operate correctly with the vandal resistant covers that are provided separately. You must order the reader as a kit (including the cover) using one of the following part codes:

- > PRX-TSEC-STD-KP-VRC
- > PRX-TSEC-EXTRA-KP-VRC

These variants are only currently available for the dual format series of tSec readers.

Mounted correctly, the tSec Reader Vandal Resistant Cover is compliant to DHF TS 001:2013, the ENHANCED REQUIREMENTS & TEST METHODS FOR ANTI-LIGATURE HARDWARE to grade B4 for vertical direction devices and to impact level IK10".

## Available Models / Ordering Information

The tSec Reader comes in three main sizes and with a range of optional features.

	Keypad	125KHz	13.56MHz	Bluetooth	NFC	Vandal Cover
<b>Standard</b>	115 x 45 x 18mm (4.53 x 1.77 x 0.71")					
<b>PRX-TSEC-STD-BT-B</b> tSec BLE/NFC/13.56MHz/125kHz Reader Mullion (Black)		✓	✓	✓	✓	
<b>PRX-TSEC-STD-BT-W</b> tSec BLE/NFC/13.56MHz/125kHz Reader Mullion (White)		✓	✓	✓	✓	
<b>PRX-TSEC-STD-DF-B</b> tSec NFC/13.56MHz Reader Mullion (Black)			✓		✓	
<b>PRX-TSEC-STD-DF-W</b> tSec NFC/13.56MHz Reader Mullion (White)			✓		✓	
<b>PRX-TSEC-STD-KP-BT-B</b> tSec BLE/NFC/13.56MHz/125kHz Reader Keypad Mullion (Black)	✓	✓	✓	✓	✓	
<b>PRX-TSEC-STD-KP-BT-W</b> tSec BLE/NFC/13.56MHz/125kHz Reader Keypad Mullion (White)	✓	✓	✓	✓	✓	
<b>PRX-TSEC-STD-KP-BT-VRC</b> tSec VRC BLE/13.56MHz/125kHz Reader Keypad Mullion Vandal Resistant (Black)	✓	✓	✓	✓	✓	✓
<b>Extra</b>	115 x 73 x 18mm (4.53 x 2.87 x 0.71")					
<b>PRX-TSEC-EXTRA-BT-B</b> tSec BLE/NFC/13.56MHz/125kHz Reader Wall (Black)		✓	✓	✓	✓	
<b>PRX-TSEC-EXTRA-BT-W</b> tSec BLE/NFC/13.56MHz/125kHz Reader Wall (White)		✓	✓	✓	✓	
<b>PRX-TSEC-EXTRA-KP-BT-B</b> tSec BLE/NFC/13.56MHz/125kHz Reader Keypad Wall (Black)	✓	✓	✓	✓	✓	
<b>PRX-TSEC-EXTRA-KP-BT-W</b> tSec BLE/NFC/13.56MHz/125kHz Reader Keypad Wall (White)	✓	✓	✓	✓	✓	
<b>PRX-TSEC-EXTRA-KP-BT-VRC</b> tSec VRC BLE/13.56MHz/125kHz Reader Keypad Wall Switch Vandal Resistant (Black)	✓	✓	✓	✓	✓	✓
<b>Mini</b>	84 x 45 x 17mm (3.31 x 1.77 x 0.67")					
<b>PRX-TSEC-MINI-BT-B</b> tSec BLE/NFC/13.56MHz/125kHz Reader Mini Mullion (Black)		✓	✓	✓	✓	
<b>PRX-TSEC-MINI-DF-B</b> tSec NFC/13.56MHz Reader Mini Mullion (Black)			✓		✓	
<b>PRX-TSEC-MINI-BT-W</b> tSec BLE/NFC/13.56MHz/125kHz Reader Mini Mullion (White)		✓	✓	✓	✓	
<b>PRX-TSEC-MINI-DF-W</b> tSec NFC/13.56MHz Reader Mini Mullion White			✓		✓	

## Technical Specifications

Operating Voltage	12VDC (9.5 to 14VDC)
Operating Current	254mA (peak, reading)
Card Read Range	MIFARE 60mm (2.36") * DESFire EV1 ISO 15mm (0.6") * 125kHz Clamshell 40mm (1.57") †
Tag Read Range	MIFARE 30mm (1.2") * DESFire EV1 6mm (0.23") * 125kHz 25mm (0.98") †
Wiegand Interface	Multiple format 26 or 34 Bit data 0 and data 1, card defined.
Frequency	13.56 MHz ISO/IEC 14443 Type A* 125KHz pulse width modulated†
Multi Conductor Cable	Wiegand: 22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft)
Bluetooth Read Range	Proximity mode: up to 0.5m (1.6ft) Configurable** Action unlock (shake): up to 5m (16.4ft) Configurable**
Bluetooth Electronic credential transmission technology	NRF8001 Bluetooth 4.0 compliant Proprietary data exchange protocol. AES128 Encrypted Reader App Version: 1.04.175 and above Credentials can be distinguished by unique site code and card number
Bluetooth Wireless Device	Protege Mobile 1.0.x
NFC Read Range	Up to 60mm***
NFC (Near-field communication) Electronic credential transmission technology	Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential Credential is AES-256 (NIST certified AES algorithm) Reader App Version: 1.04.175 and above Credentials can be distinguished by unique site code and card number
NFC Wireless Device	Protege Mobile 1.0.x
Environment IP Rating	IP65
Operating Temperature	-35° to 65°C (-31° to 149°F)
Storage Temperature	-10° to 85°C (14° to 185°F)
Reader Dimensions (H x W x D)	115 x 45 x 18mm (4.53 x 1.77 x 0.71")
Weight	110g (3.89oz)

\* Applies to the MIFARE/DESFire and Multi-Technology models only

† Applies to the 125kHz and Multi-Technology models only

\*\* Applies to the Bluetooth enabled models only

\*\*\* Applies to the NFC enabled models only

The size of conductor used for the supply of power to the unit should be adequate to prevent voltage drop at the terminals of no more than 5% of the rated supply voltage.