

The tSec Standard Reader provides a complete multitechnology smart card RFID solution. Compatible with all Wiegand 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, 125kHz and/or **Bluetooth®** wireless technology), 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
- > Supports OSDP communication protocol with secure channel
- > Read range up to 60mm (2.36") with proximity ISO cards
- > 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 environmental IP Rating of IP65 for outdoor and indoor operation
- > Medium size, making it suitable for all situations
- > Optional accessories expand the range of installation possibilities

tSec Standard Reader 1/8

Optional Features

A range of optional features means there is a model to suit everyone.

- > Available with or without capacitive touch keypad
- > Choose from the 125kHz or MIFARE/DESFire models, or the Multi Technology model that supports all formats
- > Optional Bluetooth® / NFC connectivity to allow access via a smartphone
- > Optional vandal resistant cover
- > Opt for either black or white according to your decor

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 up front.

Optional Bluetooth® / NFC Credential Reading

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

Equipped with support for most modern iOS and Android devices, you can unlock the door using a unique access credential that is 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.

OSDP Communication

The OSDP protocol improves interoperability and adds scalability, flexibility and ease of implementation.

OSDP with secure channel offers additional security with AES-128 encryption and predefined key management and authentication.

For specifications and reader configuration, refer to AN-321 Configuring tSec Multi-Technology Card Readers for OSDP Communication, available from the ICT website.

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, for a function that is used to arm an area you might set the LED to change to orange to show that the function has started, yellow to show that the area has armed successfully, and red to indicate when the function has failed.

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

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.

tSec Standard Reader 2/8

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.



Covers can be ordered using the following part codes:

> tSec Standard Reader: PRX-SVRC

> tSec Extra Reader: PRX-XVRC

> tSec Mini Reader: PRX-MVRC

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.

Keypad Support

Regular keypad variations of the tSec Reader 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:

- > tSec Standard Reader: PRX-TSEC-STD-KP-VRC (Multi Technology), PRX-TSEC-STD-DF-KP-VRC (13.56MHz), PRX-TSEC-STD-KP-BT-B-VRC (Multi Technology with Bluetooth® Wireless Technology).
- > tSec Extra Reader: PRX-TSEC-EXTRA-KP-VRC (Multi Technology), PRX-TSEC-EXTRA-DF-KP-VRC (13.56MHz), PRX-TSEC-EXTRA-KP-BT-B-VRC (Multi Technology with Bluetooth® Wireless Technology).

tSec Standard Reader 3/8

Available Models / Ordering Information

The tSec Standard Reader is available with a range of features.

tSec Standard Reader	117 x 46 x 18mm (4.61 x 1.81 x 0.71")				
	Keypad	125kHz	MIFARE/ DESFire/ NFC	Bluetooth® Technology	Vandal Resistant Cover*
PRX-TSEC-STD-B tSec Standard Multi-Technology Card Reader		•	Ø		
PRX-TSEC-STD-KP-B tSec Standard Multi-Technology Card Reader with Keypad	Ø	•	Ø		
PRX-TSEC-STD-125-B tSec Standard 125kHz Card Reader		•			
PRX-TSEC-STD-DF-B tSec Standard 13.56MHz Card Reader			Ø		
PRX-TSEC-STD-DF-KP-B tSec Standard 13.56MHz Card Reader with Keypad	Ø		•		
PRX-TSEC-STD-BT-B PRX-TSEC-STD-BT-W tSec Standard Multi-Technology Card Reader with Bluetooth® Wireless Technology		•	•	•	
PRX-TSEC-STD-KP-BT-B PRX-TSEC-STD-KP-BT-W tSec Standard Multi-Technology Card Reader with Keypad and Bluetooth® Wireless Technology	•	•	•	•	
PRX-TSEC-STD-KP-BT-B-VRC tSec Standard Multi-Technology Card Reader with Keypad, Vandal Resistant Cover and Bluetooth® Wireless Technology	•	•	•	•	Ø
PRX-TSEC-STD-DF-BT-B tSec Standard 13.56MHz Card Reader with Bluetooth® Wireless Technology			Ø	•	
PRX-TSEC-STD-DF-KP-BT-B tSec Standard 13.56MHz Card Reader with Keypad and Bluetooth® Wireless Technology	•		•	•	

^{*} Keypad editions with vandal resistant cover included. Covers may be purchased separately for readers without keypads, but regular keypad editions do not support vandal resistant covers.

tSec Standard Reader 4/8

Technical Specifications

Order Codies See ISec:Reader editions: Power Supply Operating Voltage 12VDC (95 to 14VDC) See Standard Reader: 254mA (Peak, Reading) See Standard Reader: 254mA (Peak, Reading) See Standard Reader: 205mA (Peak, Reading) See Mini Reader: 205mA (Peak, Reading) Communications MIFARE 60mm (2.36*)* Operating CVI Foot Isomon (0.60*)* 125kHz Clamshell 40mm (1.57*)* Ing Read Range 055kHz (Sammel 40mm (1.57*)* Ing Read Range 155kHz (Sammel 40mm (1.57*)* Ing Read Range 155kHz (Sammel 40mm (1.57*)* Wegand Interface 155kHz (Sammel 40.23*)* 125kHz (Sammel 40.24*)* Wegand Interface 254kHz (Sammel 40.24*)* Wegand Interface 355kHz (Sammel 40.24*)* Wegand Interface 415kHz (Solice 10.4443 Type A* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* Wegand Solice 10kHz (Solice 10.4443 Type A* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* Wegand Interface 50kHz (Solice 10.4443 Type A* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* 125kHz (Sammel 40.24*)* Wegand Interface 60kHz (Solice 10.24*)* Wegand Interface 70kHz (Sammel 40.24*)* Proprietary Secure 70kHz (Sammel 40.	Ordering Information	
Operating Vollage 12VIDC (9.5 to 14VIDC) 15ec Standard Reader: 254mA (Peak, Reading) 15ec Extra Reader: 254mA (Peak, Reading) 15ec Extra Reader: 205mA (Peak, Reading) 15ec Mini Reader: 205mA (Peak, Reader) 15ec Mini Reader:	Order Codes	See tSec Reader editions.
See Standard Reader: 254mA (Peak, Reading) 15ec Extra Reader: 298mA (Peak, Reading) 15ec Mini Reader: 203mA (Peak, Reader: 203mA (Peak, Reading) 15ec Mini Reader: 203mA (Peak, Reader: 203mA	Power Supply	
Operating Current Sec Extra Reader. 298mA (Peak, Reading)	Operating Voltage	12VDC (9.5 to 14VDC)
Communications MIFARE 60mm (2.36")* DESFire EVI ISO 15mm (0.6")* 125ki Iz Clarnshell 40mm (1.57")* MiFARE 30mm (1.2")* DESFire EVI ISO 15mm (0.6")* 125ki Iz Clarnshell 40mm (1.57")* MiFARE 30mm (1.2")* DESFire EVI 6mm (0.23")* 125ki Iz Sirm (0.98")* Wiegand Interface Multiple format 26 or 34 Bit data 0 and data 1, card defined 13.56 MHz ISO/IFC I4443 Type A* 10.56ki Police width modulated * Wiegand: 22waya glipha 5196, 5198, 18Awg glipha 5386, 5388. Max Distance 150m (4921t) Module comms/R5488/t Belden 9842 or equivalent. Max distance 900m (3000t) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol **/*** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (1.6ft) Electronic Credential Proprietary data exchange protocol. AESI28 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO/816-4 Proprietary Secured DESFire credential Credential s AES-256 (NIS) 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 Deparating Conditions Environment IP Rating Pp65 Operating Conditions Environment IP Rating Pp65 Operating Temperature UI./UI.C -35° to 66°C (-31" to ISI*F): EU FN -40° to 70°C (-40° to IS8°F) Storage Temperature UI./UI.C -35° to 66°C (-31" to ISI*F): EU FN -40° to 70°C (-40° to IS8°F) Storage Temperature UI./UI.C -35° to 66°C (-31" to ISI*F): EU FN -40° to 70°C (-40° to IS8°F)		tSec Standard Reader: 254mA (Peak, Reading)
Card Read Range DESFire EVI ISO ISmm (0.6") * 125kHz Clamshell 40mm (1.57") * 125kHz ZSmm (0.98") * 125k	Operating Current	
MIFARE 60mm (2.36°)* DESFire EVI ISO 15mm (0.6°)* 1258Hz Clarashell 40mm (157°)* MIFARE 30mm (127)* Tag Read Range DESFire EVI ISO 15mm (0.6°)* 1258Hz 25mm (0.98°)* Wilegand Interface Multiple format 26 or 34 Bit data 0 and data 1, card defined 13.56 MHz (50/IEC 14443 Type A* 1258Hz 25mm (0.98°)* Wilegand 22Awg alpha 5186, 5198, I8Awg alpha 5386, 5388. Max Distance 150m (457ff) Module comms/RS485; Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP communication OSDP standard 2.2 with Secure Channel Protocol**/** Bluetooth* Wireless Technology Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NF8001 Bluetooth* Version 4.0 compliant Bluetooth* Electronic Credential Proprietary data exchange protocol. AESI28 Encrypted Reader App Version: 10.4175 and above Credentials can be distinguished by unique site code and card number Bluetooth* Wireless Device Protege Mobile 1.0.x NFC NFC (Near-field communication) electronic credential transmission technology Credentials can be distinguished by unique site code and card number Proprietary Secured DESFire credential Credential is AFS-256 (NST certified AFS algorithm) Reader App Version: 10.4175 and above Credentials can be distinguished by unique site code and card number Proprietary Secured DESFire credential Credential is AFS-256 (NST certified AFS algorithm) Reader App Version: 10.4175 and above Credentials can be distinguished by unique site code and card number Proprietary Secured DESFire credential Credential is AFS-256 (NST certified AFS algorithm) Reader App Version: 10.4175 and above Credentials can be distinguished by unique site code and card number Protege Mobile 1.0.x Pr		tSec Mini Reader: 203mA (Peak, Reading)
Card Read Range DESFire EVI ISO 15mm (0.6")* 125kHz Clamshell 40mm (1.57")* MIFARE 30mm (1.2")* Tag Read Range DESFire EVI 6mm (0.23")* 125kHz 25mm (0.38")* 125kHz 25mm (0.38")* 125kHz 25mm (0.38")* 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 * Wiegand: 22Awg alpha 5196, 5198, IBAwg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/R54858. Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol** / *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (16ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRR8001 Bluetooth* electronic Credential 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 NRC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO/816-4 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 Protege Mobile 1.0.x NFC Wireless Device Protege Mobile 1.0.x Proprietary Secured DESFire credential Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Proprietary Secured DESFire credential Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Proprietary Secured DESFire Credential Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Departing Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35" to 66°C (-31" to 151°F): EU EN -40" to 70°C (-40" to 158°F) Storage Temperature JUL/ULC -35" to 66°C (-31" to 151°F): EU EN -	Communications	
125kHz Clamshell 40mm (1.57") * MIFARE 30mm (1.2") * DESFire EV 16mm (0.23") * 125kHz 25mm (0.23") * 125kHz 25mm (0.23") * Wiegand Interface	Card Doad Dangs	
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 13.56 MHz ISO/IEC 14443 Type A * 125kHz pulsa width modulated 1* Mutti Conductor Cable Wiegand: 22Awg alpha 5196, 5198, IBAwg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/R5485; Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol **/ *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF800I Bluetooth* version 4.0 compliant Proprietary data exchange protocol. AESI28 Encrypted Reader App Version: 1.04.175 and above Credentials can be distinguished by unique site code and card number Bluetooth* Wireless Device Protoge Mobile 1.0.x NFC NFC NFC (Near-field communication) electronic credential transmission technology Credential is al.5-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is al.5-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is al.5-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential is AIS-256 (NIST cartified AIS algorithm) Reader App Version: 1.04.175 and above Credential i	Card Read Range	
Tag Read Range DESFire EVI 6mm (0.23") * 125k4tz 25mm (0.98") * Wiegand Interface Multiple format 25 or 34 Bit data 0 and data 1, card defined 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 (492tt) Module comms/R5435; Belden 9842 or equivalent, Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol **/ *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* Period a exchange protocol. AES128 Encrypted Proprietary data exchange protocol. AES128 Encrypted Reader App Version: 1.04.175 and above credential scan be distinguished by unique site code and card number Bluetooth* Wireless Device Protege Mobile 1.0.x NFC NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DEStire credential Credential is AES-256 (NST certified AES algorithm) Reader App Version: 1.04.175 and above credential Credential is AES-256 (NST 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35* to 66°C (-31* to 151*F) : EU EN -40° to 70°C (-40* to 158*F) Storage Temperature 10* to 85°C (14* to 185*F) Mean Time Between Failures (MTBF) 520.834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		` '
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) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol ** / *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NFR8001 Bluetooth* version 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 NFC Read Range Up to 60mm *** 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UI./ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85° C (14° to 185°F) Mean Time Between Failures (MTBF) 520.834 hours (calculated using RFD 2000 (UTE C.80-810) Standard)	Tag Read Range	
Frequency 13.56 MHz ISO/IEC 14443 Type A * 125KHz pulse width modulated * Wiegand: 22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol **/ *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* Credential 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 NFC (Near-field communication) electronic credential transmission technology Up to 60mm *** Android 4.4 or above, with phones which support ISO/886-4 Proprietary Secured DESFire credential electronic credential transmission technology Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Operating Conditions Environment IP Rating Destructions of the Strict o		125kHz 25mm (0.98") †
Tesquency 125KHz pulse width modulated * Wiegand: 22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol ** / *** Bluetooth* Wireless Technology Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* Persion 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 (Near-field communication) Proprietary Secured DESFire credential Credential transmission Cred	Wiegand Interface	Multiple format 26 or 34 Bit data 0 and data 1, card defined
Multi Conductor Cable Multi Conductor Cable Milegand: 22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388. Max Distance 150m (492ft) Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol ** / *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* version 4.0 compliant Bluetooth* Electronic Credential 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 NFC (Near-field communication) electronic credential transmission technology Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14" to 185°F) Mean Time Between Faillures (MTBF) 520.834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Eroguopov	13.56 MHz ISO/IEC 14443 Type A *
Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol ** / *** Bluetooth* Wireless Technology Bluetooth* Read Range Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* version 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 NFC (Near-field communication) electronic credential transmission technology Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential Credentials 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature UL/ULC -35° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) S20,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	riequency	125KHz pulse width modulated †
Module comms/RS485: Belden 9842 or equivalent. Max distance 900m (3000ft) OSDP Communication OSDP standard 2.2 with Secure Channel Protocol ** / *** Bluetooth* Wireless Technology Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* Version 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential Credential is AES-256 (NIST certified AES algorithm) technology 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 NFC Wireless Device Protege Mobile 1.0.x Departing Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature JUL/ULC -35° to 66°C (-31° to 185°F) Mean Time Between Failures (MTBF) 520.834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Multi Conductor Cable	Wiegand: 22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388. Max Distance 150m (492ft)
Bluetooth* Wireless Technology Proximity mode: up to 0.5m (1.6ft) Configurable ** Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* version 4.0 compliant Proprietary data exchange protocol. AES128 Encrypted Transmission Technology 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential electronic credential transmission technology Reader App Version: 1.04.175 and above Credentials 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		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 ** NRF8001 Bluetooth* Version 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential electronic credential transmission technology Reader App Version: 1.04.175 and above 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) S20,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	OSDP Communication	OSDP standard 2.2 with Secure Channel Protocol ** / ***
Bluetooth* Read Range Action unlock (shake): up to 5m (16.4ft) Configurable ** NRF8001 Bluetooth* version 4.0 compliant Proprietary data exchange protocol. AES128 Encrypted Transmission Technology 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential Credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Bluetooth® Wireless Technology	
Bluetooth* Electronic Credential Transmission Technology 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 NFC NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) S20,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Bluetooth® Read Range	
Transmission Technology 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 NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		NRF8001 Bluetooth® version 4.0 compliant
Credentials can be distinguished by unique site code and card number Bluetooth® Wireless Device Protege Mobile 1.0.x NFC NFC Read Range Up to 60mm **** Android 4.4 or above, with phones which support ISO7816-4 NFC (Near-field communication) Proprietary Secured DESFire credential electronic credential transmission Credential is AES-256 (NIST certified AES algorithm) technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		
Bluetooth* Wireless Device Protege Mobile 1.0.x NFC NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 Proprietary Secured DESFire credential electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Transmission Technology	
NFC Read Range Up to 60mm *** Android 4.4 or above, with phones which support ISO7816-4 NFC (Near-field communication) electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		5 7 .
NFC Read Range Up to 60mm **** Android 4.4 or above, with phones which support ISO7816-4 NFC (Near-field communication) electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		Protege Mobile I.U.x
Android 4.4 or above, with phones which support ISO7816-4 NFC (Near-field communication) electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		
NFC (Near-field communication) electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	NFC Read Range	
electronic credential transmission technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	NEC (N. C. I.I.	
technology 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 Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		
Credentials can be distinguished by unique site code and card number NFC Wireless Device Protege Mobile 1.0.x Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		
Operating Conditions Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)		
Environment IP Rating IP65 Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	NFC Wireless Device	Protege Mobile 1.0.x
Operating Temperature UL/ULC -35° to 66°C (-31° to 151°F): EU EN -40° to 70°C (-40° to 158°F) Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Operating Conditions	
Storage Temperature -10° to 85°C (14° to 185°F) Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Environment IP Rating	IP65
Mean Time Between Failures (MTBF) 520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)	Operating Temperature	UL/ULC -35° to 66°C (-31° to 151°F) : EU EN -40° to 70°C (-40° to 158°F)
	Storage Temperature	-10° to 85°C (14° to 185°F)
Dimensions	Mean Time Between Failures (MTBF)	520,834 hours (calculated using RFD 2000 (UTE C 80-810) Standard)
	Dimensions	

tSec Standard Reader 5/8

Reader Dimensions (H x W x D)	tSec Standard Reader: 117 x 46 x 18mm (4.61 x 1.81 x 0.71") tSec Extra Reader: 117 x 75 x 18mm (4.61 x 2.95 x 0.71") tSec Mini Reader: 85 x 46 x 17mm (3.35 x 1.81 x 0.67")
Vandal Resistant Cover (H x W x D)	PRX-SVRC tSec Standard Reader cover: 162 x 91 x 22.6mm (6.37 x 3.58 x 0.88") PRX-XVRC tSec Extra Reader cover: 162 x 120 x 22.6mm (6.37 x 4.72 x 0.88") PRX-MVRC tSec Mini Reader cover: 127 x 88 x 20mm (5.0 x 3.46 x 0.78")

Reader Weights	Net Weight	Gross Weight
tSec Standard Reader tSec Standard Reader with VRC	110g (3.9oz) 190g (6.7oz)	130g (4.6oz) 280g (9.9oz)
tSec Extra Reader tSec Extra Reader (UHF) tSec Extra Reader with VRC	160g (5.6oz) 180g (6.3oz) 270g (9.5oz)	190g (6.7oz) 200g (7.1oz) 360g (12.7oz)
tSec Mini Reader	80g (2.8oz)	100g (3.5oz)

^{*} Applies to MIFARE/DESFire and Multi-Technology 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.

The **Bluetooth*** word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Integrated Control Technology is under license. Other trademarks and trade names are those of their respective owners.

tSec Standard Reader 6/8

[†] Applies to 125kHz and Multi-Technology models only

^{**} Applies to Bluetooth® wireless technology enabled models only

^{***} Applies to NFC capable models only

Regulatory Notices

New Zealand (RSM) and Australia (RCM)

This equipment carries the R-NZ label and complies with EMC and radio communications regulations of the Australian Communications and Media Authority (ACMA) governing the Australian and New Zealand (AS/NZ) communities.

AS/NZS 2201.1 Class 5

Protege systems conform to AS/NZS 2201.1:2007 Class 5 intruder alarm systems standards for the construction, operation, performance and installation of intruder alarm equipment and systems installed in clients' premises.

CE - Compliance with European Union (EU)

Conforms where applicable to European Union (EU) Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility (EMC) Directive 2014/30/EU, Radio Equipment Directive (RED)2014/53/EU and RoHS Recast (RoHS2) Directive: 2011/65/EU + Amendment Directive (EU) 2015/863.

This equipment complies with the rules of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directives.

Security Grade 4, Environmental Class II, EN 50131-1:2006+A2:2017, EN 50131-3:2009, EN 50131-6:2008+A1:2014, EN 50131-10:2014, EN 50136-1:2012, EN 50136-2:2013, EN 60839-11-1:2013, Power frequency magnetic field immunity tests EN 61000-4-8, Readers Environmental Class: IVA, IKO7.

UL/ULC (Underwriters Laboratories)

- > UL 294 for Access Control System Units
- > CAN/ULC S319 for Electronic Access Control Systems

Industry Canada

ICES-003

This is a Class A digital device that meets all requirements of the Canadian Interference-Causing Equipment Regulations.

CAN ICES-3 (A)/NMB-3(A)

Federal Communications Commission (FCC)

FCC Rules and Regulations CFR 47, Part 15, Class A.

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; (2) This device must accept any interference received, including interference that may cause undesired operation.

> For a full regulatory and approval list please visit the ICT website.

tSec Standard Reader 7/8

Designers & manufacturers of integrated electronic access control, security and automation products. Designed & manufactured by Integrated Control Technology Ltd. Copyright © Integrated Control Technology Limited 2003-2022. All rights reserved.	
Disclaimer: Whilst every effort has been made to ensure accuracy in the representation of this product, neither Integrated Control Technology Ltd nor its employees shall be liable under any circumstances to any party in respect of decisions or actions they may make as a result of using this information. In accordance with the ICT policy of enhanced development, design and specifications are subject to change without notice.	

tSec Standard Reader 8/8

19-Jan-22

www.ict.co