

# SMART SL STEEL

UNIVERSAL VANDAL RESISTANT READER

**SMART**  
INNOVATIONS

- Mobile credentials
- NFC and Bluetooth Low Energy (BLE)
- Adjustable BLE distance (0,1 - 15 m)
- Mifare Plus SL1/SL3 and Mifare Classic
- Supports multiple formats of 125 kHz RFID
- Smartphone adjustable
- Adjustable Wiegand interface
- Simple and convenient installation
- IP65 degree of protection
- Stainless steel case



The adjustable universal SmartLine (SL) reader for mobile credentials and proximity identifiers in conjunction with the U-PROX Mobile ID application and U-PROX BLE IDs will allow any access control system to use smartphones as access system credentials.

## U-PRO BLE ID

Digital personal mobile credential. It is processed and stored in the user's smartphone using the U-PROX Mobile ID application. It can be transferred over NFC and/or BLE between the reader and the smartphone.

via **NFC** for Android only

Read range 2-5 cm. Recommended for double-sided doors and turnstiles.

via **BLE** for Apple and Android

Reader supports 3 operation modes for smartphones with U-PROX BLE ID:

- "Door-Proximity" – 10-20 cm, reader activates by built-in proximity sensor. Recommended for double-sided doors and turnstiles
- "Door" - up to 60-70 cm
- "Barrier/Gate" - adjustable range of interaction from 1 to 15 m.

## Mifare® и Mifare® Plus

Operates with ISO14443A identifiers, supports SL1 and SL3 modes for Mifare® Plus. Read range – up to 5 cm.

Reads encrypted identifiers with static or diversified key and with an arbitrary card number.

Simultaneous use of five encryption profiles.

## RFID, 125 kHz

Supports RFID 125 kHz - EmMarine and other formats.

## Easy connection

Seamless and easy connection to existing and new access systems, due to the Wiegand 26, 32, 34, 37, 40, 42, 56, 58, 64 bit interfaces, Wiegand with automatic selection and TouchMemory supports.

## Integration

RS-232 or RS PRO protocols for integration into arbitrary systems. The encrypted protocol RS PRO provides safe management of all parameters of the reader.

## Mobile Apps

Free mobile application **U-Prox Mobile ID** receives, stores and transmits mobile credential U-Prox BLE ID between the reader and the smartphone.



With the free mobile application **U-Prox Config**, the reader can be completely adjusted – from the indication to the encryption modes.



The reader is supplied without the engineering password for programming specified. To connect and (re) set the password – connect inputs D0 (green) and D1 (white) with each other and apply power to the reader.

# Benefits

<b>Read range</b>	NFC, Mifare and RFID 125 kHz - up to 4 cm, BLE - adjustable 10 cm - 15 m
<b>BLE (Bluetooth Low Energy), 2,45 GHz</b>	Bluetooth 4.x, Bluetooth 5.x
<b>Mifare®, 13,56 MHz</b>	ISO14443A: Mifare®Standard, Mifare®Hi-Memory, Mifare®Ultralight, Mifare®Classic 1K/4K, Mifare®Classic 7UID, Mifare® Plus SL1 and SL3
<b>NFC, 13,56 MHz</b>	ISO 14443/15693
<b>RFID, 125 kHz</b>	ASK and FSK
<b>Case material</b>	1.2 mm stainless steel
<b>Dimensions</b>	80 x 114 x 16 mm
<b>Weight</b>	260 g
<b>Ambient</b>	IP65, -40°C ... +60°C
<b>Power supply</b>	+9...+15 VDC, max current- up to 80 mA Voltage ripple - up to 500 mVp-p
<b>Interfaces</b>	Wiegand 26, 32, 34, 37, 40, 42, 56, 58, 64 bits, Wiegand Auto and TouchMemory
<b>Wiring</b>	8 wire cable, maximum distance to panel - up to 150 m for Wiegand interface, up to 30 m for TouchMemory interface

## Wiring

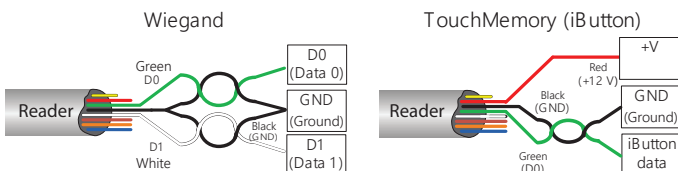
The reader terminal functions are listed in the table. We recommend to use multi-core signal cable with 0,22 mm<sup>2</sup> cross-section of each wire between reader and panel.

Color	Wiegand	RS232	TouchMemory
Green	Data0 (WD0)	Rx	iButton
White	Data1 (WD1)	Tx	
Red	+V, 12 VDC		
Black	GND		
Brown	Red Led		Red Led
Orange	Green Led		Green Led
Blue	Beep		Beep
Yellow	Hold	Hold	Hold

Reader turns to the hold mode while yellow wire is shorted to ground and does not read any identifiers.

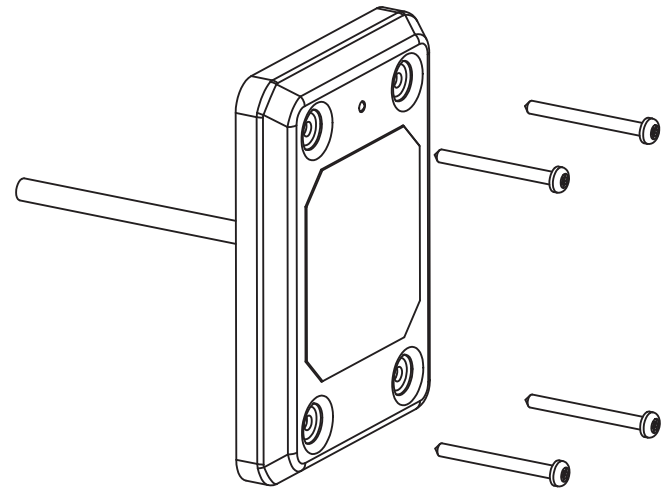
It is prohibited to supply the external voltage to the yellow wire!

Reader connection to the panel with twisted pair.



## Reader Installation

Installation on the metal surfaces may cause decrease of reading range. Do not place readers closer than 20 cm one from another. It is possible to install two readers at a distance 10-15 cm of each other when their yellow wires (Hold/Sync) interconnected. This synchronizes the work of the readers, they will work alternately.



0. Make small recess or hole (diameter is 14 mm) to connect cable under the reader's case.
1. Connect reader with cable, which attaches it to control panel.
2. Using the body reader as a template mark and then drill four openings 6 mm in diameter and 35 mm deep
3. Fasten the reader to the wall, using supplied plastic dowels and screws.

## Limited Warranty

Manufacturer warrants the product for conditional lifetime warranty from the date of purchase, the product shall be free of defect in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Integrated Technical Vision ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not damages incurred in shipping or handling, or damages due to causes beyond the control of Manufacturer such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Manufacturer. This warranty contains the entire warranty. Manufacturer neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any warranty or liability concerning this product.

In no event shall Manufacturer be liable for any direct, indirect or consequential damages. Loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.