

ASTUTO

FREEDOM

Astuto FREEDOM Reader

AST9053FREEDOM



- Astuto encrypted format : 128-bit AES
- Accepts Mobile Credentials
- Supports NFC (Near Field Communications) & BLE (Bluetooth Low Energy)
- Adjustable BLE distance (10 cm - 12 m)
- OSDP/Wiegand interface
- Simple and convenient installation
- IP65 ingress protection rating

The Astuto FREEDOM reader accepts mobile and physical proximity credentials. When used in conjunction with the U-Prox* Mobile ID App and Mobile credentials, it will allow any access control system to use smartphones as credentials.

MOBILE CREDENTIALS

Digital personal mobile credentials are processed and stored in the user's smartphone using the Mobile ID application. They 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:

- "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 12 m.

Easy connection

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

Mobile Apps

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

Warranty

Limited lifetime.



MADE IN EUROPE.

astutoaccess.com

Specifications

Read range	NFC, and RFID up to 5 cm, BLE - adjustable 10 cm - 12 m
BLE 2.45 GHz	Bluetooth 4.x, Bluetooth 5.x
Transmit Frequency	13.56 MHz
Encryption	128-bit AES
Case material	ABS+PC plastic
Color	Black and light-gray interchangeable covers (included)
Dimensions	45 x 80 x 12.5 mm
Weight	70 g
Operating Environment	Ambient temp. range -40°C to +60 °C - IP 65 protection rating
Power supply	9 TO 15V DC, max current- up to 80 mA Voltage ripple - up to 500 mVp-
Interfaces	OSDP(default configuration), Wiegand 26 32, 34, 37, 40, 42, 56, 58, 64 bits
Wiring	8 wire cable, maximum distance to panel - up to 150 m for Wiegand interface up to 30m for TouchMemory interface, up to 1000 m for OSDP interface
Warranty	Limited Lifetime
Approvals	RCM - AS/NZS 4268: 2017, EN 300 328 V2.1.1 (2016-11), EN 300 330 V2.1.1 (2017-02), EN 55032:2015, CE

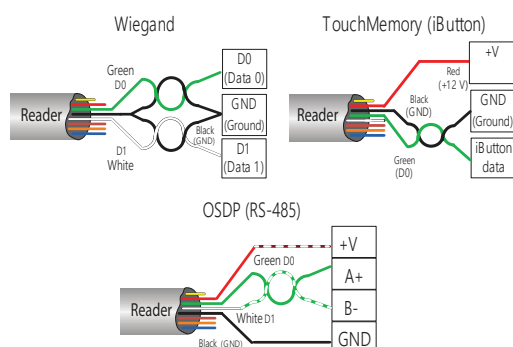
Wiring

The reader terminal functions are listed in the table. We recommend the use of multi-core signal cable with 0.44 mm² cross-section of each wire, between reader and panel.

Color	Wiegand	RS232	TouchMemory	OSDP
Green	Data0 (WD0)	Rx	iButton	A+
White	Data1 (WD1)	Tx		B-
Red	+12V DC			
Black	GND			
Brown	Red Led		Red Led	
Orange	Green Led		Green Led	
Blue	Beep		Beep	
Yellow	Hold/Sync	Hold/Sync	Hold/Sync	

Reader turns to hold mode when yellow wire is earthed and does not read any credentials. This allows the access control panel to manage the operation of the reader.

DO NOT CONNECT THE YELLOW WIRE TO POWER.

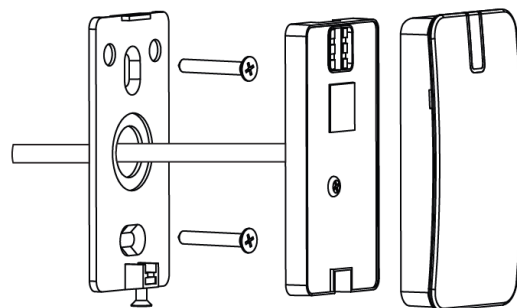


Reader Installation

Installation on metal surfaces may cause a 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) are interconnected.

This synchronizes the operation of the readers, allowing them to operate alternately.



1. Make a small hole in the mounting surface (base opening diameter is 14 mm) to connect cable through the reader's back plate/case.
2. Loosen the screw at the bottom of the reader.
3. Remove the top cover, remove the back plate.
4. Mount the back plate of reader on the wall using supplied plastic wall plugs and screws.
5. Connect reader with cable which attaches it to the control panel.
6. Insert the reader onto the back plate.
7. Replace the top cover and secure it with the screw at bottom of the reader.