

Solo Controller – 150-020, 150-040 and 150-060

For indoor use only. 0 - 50°C, 85% humidity.

To be installed within the protected premises.

Controller to be wall mounted only.

No products have been evaluated for intruder or burglar use.

Wiring:

Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL. For installation layouts and wiring, please refer to the installation instruction – ins-30240

This product is not intended for outside wiring as covered by article 800 in the national electrical code, NFPA 70

The minimal permissible wire size to be used shall not be less than 22 AWG.

The use of a Fail closed/Secure configuration shall be determined by the local building codes and the local AHJ.

Electrical Ratings

Product	Circuit	Voltage (VDC/ VAC)	Current
Solo Controller: 150-020, 150-040 and 150-060	Input		
	2A Power Supply (z99-1205) Model 150-060	24V AC/DC (13.8VDC output), AC powered from Codex SEP-2450U- OE6	1.08A for DC supply 1.46A for AC supply (2A output)
	Controller Only	12-24 VDC	2A - Max
	Output		
	Lock	12VDC	1A - Inductive
	Relay (Dry)	30VDC	2A – Inductive
	Exit Button	12V	100mA

Maximum Line Lengths

Solo Controller input/outputs Exit, Lock, Door Contact	3m/10ft
Solo Controller Relays	3m/10ft
Solo Controller Power Input	3m/10ft

Performance Levels

Model	Destructive attack	Line Security encryption	Endurance	Standby Power
Solo controller 150-060	1	1	4	3
Door Controller 150-040 and 150-020	1	1	4	1

Product Operation

The Solo controller is a compact, simple access controller designed for a quick and easy installation.

The Solo system does not require any network infrastructure wiring, or wiring between the Solo controller and DoorTag.

The Solo DoorTag communicates with a user's phone via NFC (Near Field Communication). It does not directly communicate with the Solo controller. Instead, it serves as a trigger to initiate communication between the user's phone and the controller. Proper placement of the DoorTag is crucial to ensure seamless system operation.

When a user presents their phone to the Solo DoorTag, it prompts the phone to initiate a Bluetooth connection with the Solo controller to grant or deny access.

For mobile phone operation see Application Note APN-1232 - Using a phone to access a door <https://paxton.info/10322>

Programming

For practical guidance for the successful programming of Solo, please refer to Application Notes:

APN-1213 - Getting started - Creating a profile and setting up a system
<https://www.paxton.info/10323>

APN-1215 - How to add an access point
<https://www.paxton.info/10324>

APN-1216 - How to add a DoorTag
<https://www.paxton.info/10325>

APN-1217 - How to manage users
<https://www.paxton.info/10326>

APN-1218 - How to create and use time profiles
<https://www.paxton.info/10327>

APN-1219 - How to set up custom days
<https://www.paxton.info/10328>

APN-1220 - How to manage access levels
<https://www.paxton.info/10329>

APN-1247 – Loggin in with Passkeys
<https://www.paxton.info/10330>

Local Alarm Function

When an Alarm and door contacts are connected to the Solo Controller, both door forced and door left open alarms will function automatically. These alarm functions are preprogrammed into the Solo controller firmware.

Installation Tips and Troubleshooting

For practical guidance for the successful installation of Solo, please refer to application note APN-1225 - Installation of DoorTag and Controller

<https://www.paxton.info/10331>

Battery Safety

For model 150-060, lead acid battery information, please refer to the installation instruction – ins-30240

Hardware

Solo Controller Firmware Version: 0.5.xxxxx.xxx
Where xxxxx.xxx delineates minor code errors/bug fixes

Maximum number of Door Tags per door is 4.

Bluetooth smart credentials

Credential Transmission technology	Bluetooth Low Energy
Bluetooth Version	V5.0
Mobile application software version	V1.4.2
User Verification	User must activate pin or biometric security on smart devices used as a credential.
Verification of credential type	The Solo mobile app activity feature can be used to view system events and verify the credential.

Limitation of use	The smart device used as a Bluetooth credential (key user mode) is not capable of command, control, programming or any other system manipulation.
	The Bluetooth credential is used in the same manner as a physical credential

LED Indications

Alarm (WHITE)	Controlled by firmware. Indicates if alarm is triggered
RELAY SET (WHITE)	Controlled by hardware. Indicates the state of relay output (When LED is on, N.O is connected in relay)
CONTACT (WHITE)	Controlled by hardware. Indicates the door contact is closed
EXIT (WHITE)	Controlled by hardware. Indicates the exit button has been pressed

Credential type and transmission technology

Credentials evaluated by UL	Operating Frequency
Bluetooth Low Energy (BLE)	2.4 GHz
Near Field Communication (NFC) – Ntag 216	13.56 MHz