User's Manual

PRO 5900-B Dual-Relay Unlock Module

Profile

PRO 5900-B dual relay unlock module adopts RS485 communication interface , mainly applied in building access control system. By connection with outdoor panel and indoor monitor, you can unlock on monitor when intercom and monitoring are proceeding between them.

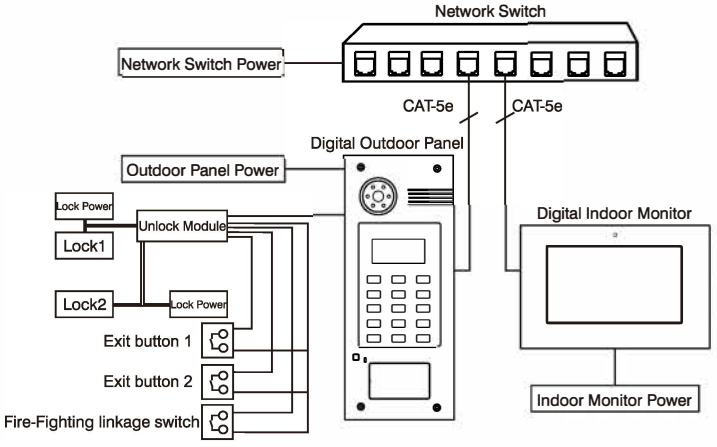
Basic Function

- Support two groups of independent switching value output
- Able to unlock by RS485 communication control
- Able to unlock by unlock control signal
- Able to unlock by exit button
- Support the fire linkage function
- Unlock delay time abjustable

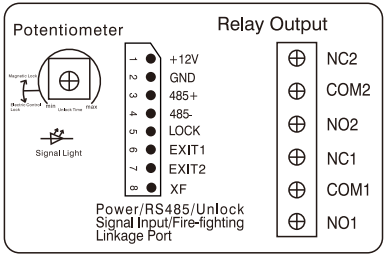
Technical Parameter

- Rated Voltage: DC 12V
- Rated Power: 1W
- Standby Power: 1W
- Working Temperature: -40℃~+70℃
- Storage Temperature: -10℃~+40℃
- Storage Relative Humidity: 20%~80%
- IP Grade: IP30
- Size: 114.5*57.5*34mm
- Weight: 110g

System Configuration



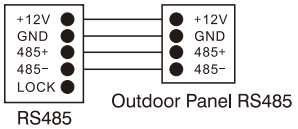
System Diagram



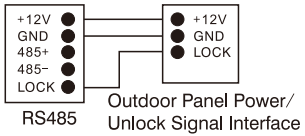
1. RS485/Unlock Signal Input

(1) Connect RS485 interface of unlock module to that of outdoor panel, with 12V power supplied by panel; Enable independent control on two groups of switching value output, see below wiring diagram as Picture 1.

(2) Connect unlock signal interface to unlock control signal of outdoor panel. This way is only used for controlling on the first group of switching value output, see below wiring diagram as Picture 2.



Picture 1: Unlock by RS485 control



Picture 2: Unlock by unlock control signal

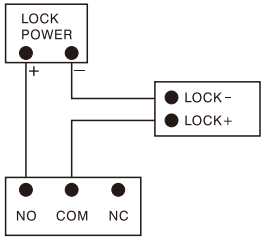
2. Switching Value Output Interface

(1) Enable connection with electric lock, maximum unlock electric current is 3.5A, need to equip with independent power supply;

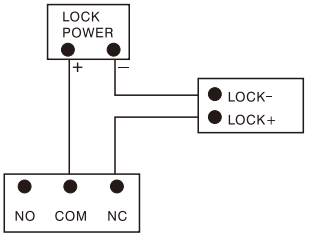
(2) Total two groups of independent switching value output interfaces for connecting with electric lock, both of them include NO, NC and COM;

(3) Electric lock has two wiring types—NO and NC, please see below:

- Picture 3: Switching value output: NO



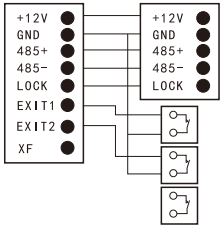
- Picture 4: Switching value output: NC



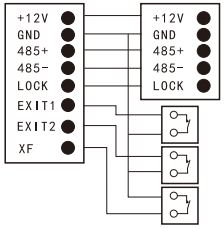
3. Exit button/Fire-fighting switch Input

(1) Connect to exit button and control output of two groups of switching values respectively. See below wiring diagram as picture 5.

(2) Connect fire-fighting switch. See below wiring diagram as picture 6.



Picture 5: Unlock by exit button

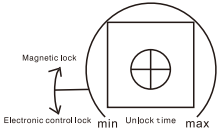


Picture 6: Unlock by fire-fighting switch

4. Potentiometer/Indicator Light

(1) Potentiometer: It's used for setting the delay unlock time and detects every 5 sec. Rotating clockwise will increase the delay time, while rotating anticlockwise will reduce the time.

(2) Indicator Light: Show the setting status of potentionmeter. It keeps on during normal work.



Potentiometer

Indicator Light

■ Setting Delay Time

Potentiometer should set the delay time based on the actual lock type. Detailed setting methods and unlock modes are shown as below:

Lock Type	Electronic Control Lock	Magnetic Lock	Notes
Unlock Delay Time	Defeat 1sec, unadjustable	1sec-30sec, adjustable	
Setting Method of Potentiometer	Rotation the potentionmeter antitclockwise the end. When the indicator light is on after flashing for one second, it means the setup is successful.	According to the time needed for delay unlocking, rotate the potentiometer clockwise to one gear. When the indicator light is on after flashing, it means the setup is successful. Flashing frequency represents delayed unlocking time. Every flash means the delay for 1 second.	For the buttom area to which the potentiometer of electric control lock is rotated anticlockwise, the rotation of the potentiometer for magnetic lock should avoid this area. Please refer to the above picture.
Unlock and delay unlocking time by RS485	Every triggering means the unlocking time is delayed for 1sec. If the trigger signal is remained, the lock is opened every other minute and the unlocking is delayed for 1 sec. The time of keeping the trigger signal can be set through outdoor panel.	Every triggering means unlocking for one time. The delayed unlocking time can be set through the potentiometer. If the time of remaining the trigger signal is longer than the delayed unlocking time set by potentiometer, please subject to the delayed unlocking time set through outdoor panel.	
Unlock and delay unlocking time by LOCK			Lock signal can only control the output of first switching value.
Unlock and delay unlocking time by exit button	Every triggering means the unlocking time is delayed for 1 sec	Every triggering means unlocking for one time. The delayed unlocking time is subject to the time set through potentiometer.	Long press on the exit button can only unlock the door for one time.
Unlock and delay unlocking time by fire-fighting linkage control	During triggering the signal of fire-fighting linkage, the lock is opened every other minute and the unlocking is delayed for 1 sec till the signal is cancelled.	During triggering the signal of fire-fighting linkage, the lock remains open till the signal is cancelled.	