NIDAC

Presco™

N761

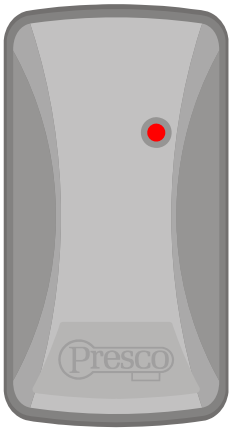
PRO2410

"Series 1"

Indoor/Outdoor 12 to 24V DC Proximity Reader

Installation Manual

1st Edition



WARRANTY

Nidac Security Pty. Ltd. will repair or replace this product if proven to be faulty (excluding accidental or malicious damage) under the 36 month warranty offered from the date of purchase.

As Nidac Security Pty. Ltd. or its agents do not perform the final installation, inspection or training in the use of this product, they cannot be held liable for injury, loss or damage directly or consequentially arising from the use or misuse of this product.

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The software design is protected internationally and remains the intellectual property of Nidac Security Pty. Ltd.

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NIDAC "When you're serious about security"

OVERVIEW

The Presco™ PRO2410 Proximity Reader is an advanced, self contained RFID (Radio Frequency IDentification) contactless reader. It is capable of interfacing to either a Wiegand input control panel or to Nidac's range of Presco™ PAC decoders.

The encapsulation makes it suitable for outdoor environments and the narrow styling makes the PRO2410 suitable for door frame mounting as well as other mounting positions.

OPERATION

Connected to a Presco™ PAC decoder

The LED on the reader is red when ready to read a Presco™ prox card. When a card is presented to the front of the reader the LED momentarily turns orange to indicate that the PRO2410 has read it. The code is then transmitted to the PAC decoder.

If the card is valid the PRO2410 will respond with 1 or 2 short beeps and the LED will change to green (provided the blue wire is connected as shown in the wiring diagram) for the time the ELC relay is active (door is released).

If the card is invalid the PRO2410 will respond with a "blarp" (long beep) and the LED will remain red.

Connected to a Wiegand controller

The LED on the reader is red when ready to read a Presco™ prox card. When a card is presented to the front of the reader the LED momentarily turns orange and the internal buzzer gives a short beep to indicate that the PRO2410 has read it. The code is then transmitted to the Wiegand controller.

The LED can be made to change colour to green by the controller applying negative signal (0 to 2V) to the violet wire or a positive signal (2.5 to 28V) to the blue wire.

The buzzer can be made to sound by applying a negative signal (0 to 2V) to the brown wire.

SPECIFICATIONS

Voltage:- 8 to 28 Volts D.C.

Current:- 50mA max @ 8 Volts D.C.
35mA @ 12 Volts D.C.
20mA @ 24 Volts D.C.

Size:- 82.5mm x 43.7mm x 16.3mm.

Weight:- 80 grams.

Outputs:- 26 bit Wiegand, Pulse Width = 50μs,
Pulse Separation = 2ms.
and Presco™ PAC decoder format.

Read Range:- Up to 11cm (4 ⅓").

Wiring Distance:- PRO2410 to Presco™ PAC Decoder = 1Km.
Unshielded cable, 100Ω max. return resistance on DTA line. To achieve distances greater than 100m the PRO2410 may require a separate local power supply depending upon the thickness of the cable used.

PRO2410 to Wiegand controller, shielded cable must be used.

Wire Gauge	Wiegand Wiring Distance
22 AWG	150m (490 ft)
24 AWG	100m (330 ft)
26 AWG	60m (195 ft)
28 AWG	40m (130 ft)

Excitation Frequency:- 125 ± 5 KHz.

Operating Temperature:- 0°C to 70°C.

36 month (3 year) manufacturer's warranty.

Designed and manufactured in Australia.

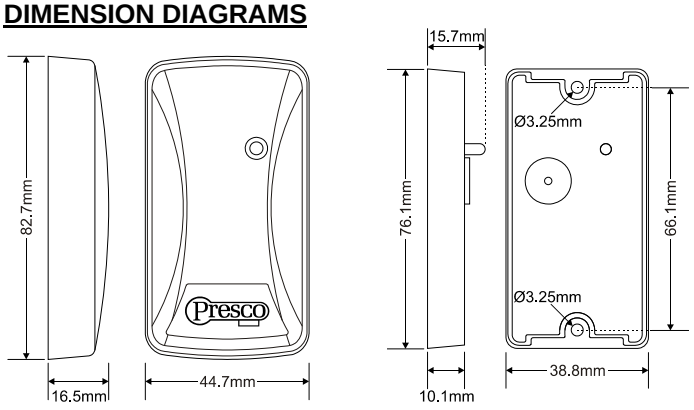
WIRE COLOURS

Red - +8 to 28 Volts D.C.
Black - Ground (0 Volts).
Green - Wiegand Data 0.
Yellow - Wiegand Data 1.
Blue - Positive Green LED Control (2.5 to 28V to activate).
Violet - Negative Green LED Control (0 to 2V to activate).
Brown - Buzzer Control (0 to 2V to activate).
White - Presco™ PAC DTA line (connect to Ground when using Wiegand).
Drain - Shield/Ground (connect to Ground at controller).

MOUNTING

Use the supplied mounting template to mark the cable entry and two mounting holes. **Note** that the cable entry to the PRO2410 is in the centre.

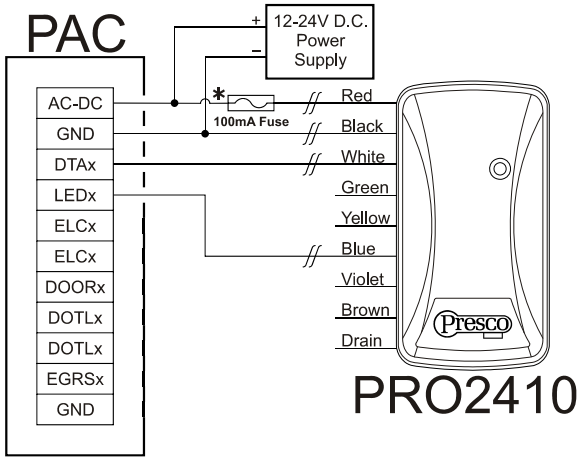
DIMENSION DIAGRAMS



With Cover **Without Cover**

WIRING DIAGRAMS

Connecting the PRO2410 to a Presco™ PAC decoder



Note that the Green, Yellow, Violet, Brown and Drain wires are not connected when the PRO2410 is used with a PAC decoder.

* Use a 100mA inline fuse to protect the power supply from short circuiting if the PRO2410 wires are tampered with. This is particularly important when using fail safe (power to lock) locking mechanisms.

Programming Prox cards & tags into a PAC decoder

To program a proximity card or tag into a PAC decoder follow the same steps as shown in the decoder manual for programming a new user code. When it comes to the stage to enter the user code simply present the card or tag to the PRO2410 that is connected to the same input as the programming keypad, or alternatively enter the 9 digit code for the proximity card, note that this code may contain star (*) and hash (#) symbols and leading zeroes (0) do need to be entered.

PAC1 Programming Example

This example uses a PAC1 decoder, programming a momentary operation proximity card or tag into memory location 001.

1. Put the PAC1 into program mode using the management code or button on the PAC1.
2. Using the PRE keypad connected to the PAC1, open the memory location to store the Prox card in [*] [0] [0] [1] [1] [E]
3. Present the proximity card or tag to the PRO2410.
4. Take the PAC1 decoder out of program mode.

Connecting the PRO2410 to a CS Technologies controller

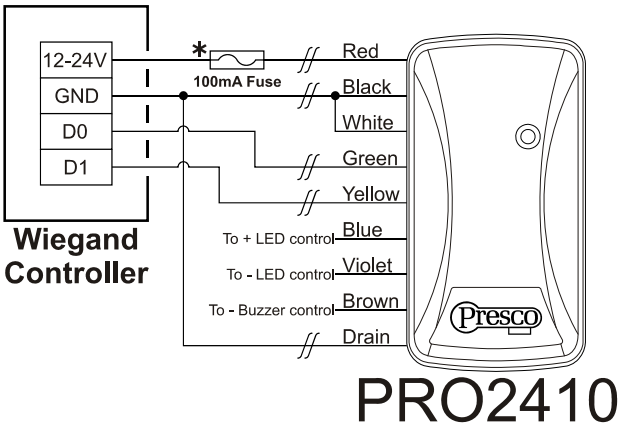
Using Presco format CS controller

PRO2410	4 Door Controller				2 Door Controller	
	Door 1	Door 2	Door 3	Door 4	Door 1	Door 2
Red	+12V	+12V	+12V	+12V	+12V	+12V
Black	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
White	IN1	IN3	IN5	IN7	IN1	IN3
Green	-	-	-	-	-	-
Yellow	-	-	-	-	-	-
Blue	OU1	OU2	OU3	OU4	OU1	OU2
Violet	-	-	-	-	-	-
Brown	-	-	-	-	-	-
Drain	-	-	-	-	-	-

Using Wiegand format CS controller

PRO2410	4 Door Controller				2 Door Controller	
	Door 1	Door 2	Door 3	Door 4	Door 1	Door 2
Red	+12V	+12V	+12V	+12V	+12V	+12V
Black	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
White	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
Green	IN1	IN3	IN5	IN7	IN1	IN3
Yellow	IN2	IN4	IN6	IN8	IN2	IN4
Blue	-	-	-	-	-	-
Violet	OU1	OU2	OU3	OU4	OU1	OU2
Brown	-	-	-	-	-	-
Drain	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd

Connecting the PRO2410 to a Wiegand controller



Note that the White wire is connected to GND (Black wire) at the PRO2410, but the Drain is connected to GND at the Wiegand controller.

Use a positive signal (2.5 to 28V) from the controller on the Blue wire to change the LED colour to green.

Use a negative signal (0 to 2V) from the controller on the Violet wire to change the LED colour to green.

Use a negative signal (0 to 2V) from the controller on the Brown wire to sound the buzzer.

* If the controller does not provide a fused output for readers, use a 100mA inline fuse to protect the power supply from short circuiting if PRO2410 wires are tampered with.