

SP1 Slimline Reader

Scope

The guide explains how to install standard specification SP1 slimline style readers. Customer specific variants require an addendum to this guide.

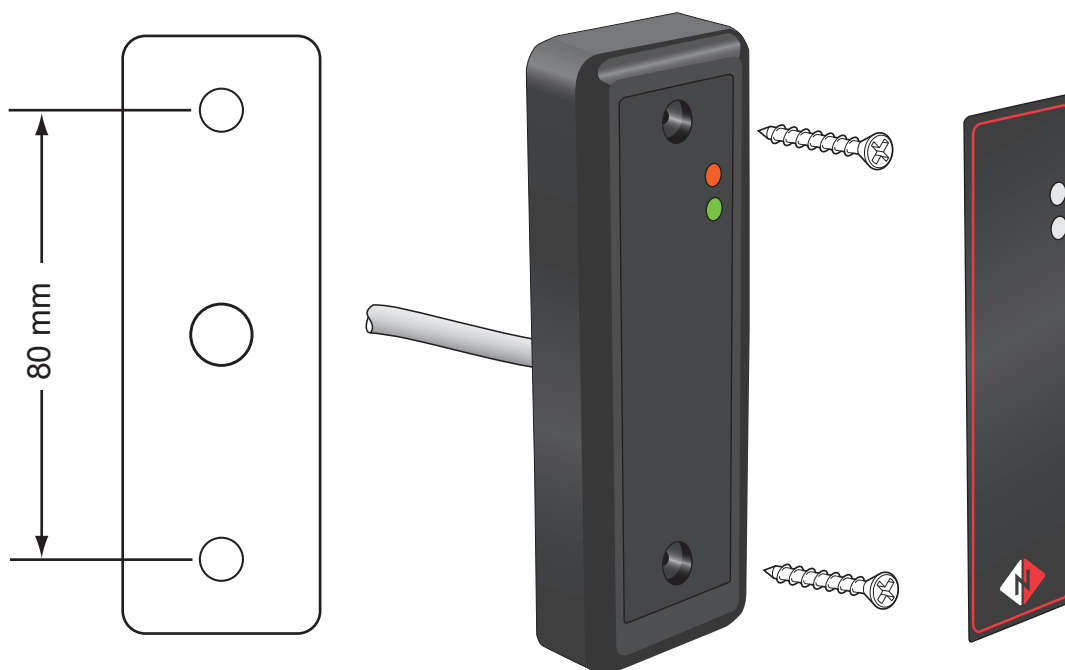
Specifications

	SP1-EM1	SP1-HT1	MP1-HT2	SP1-DP1
Technology:	EMxxx	Hitag 1	Hitag 2	DualProx
Size (mm):	116 x 40 x 17 (H x W x D)			
Colour:	Black			
Material:	ABS Plastic – Stabilised against Ultra Violet light			
Reading range:	Up to 100mm			
Operating Temp:	-30°C to 50°C ambient			
Rating:	IP66 - suitable for outdoor and indoor use			
Supply voltage:	5VDC to 16VDC			
Max. current:	< 70 mA			
Data outputs:	Reader selectable 26-Bit Wiegand or 10-digit Clock & Data plus RS232 (10 digits at 9600 bauds)		Reader selectable 26-Bit or 44-Bit Wiegand plus PAC compatible serial data	
Connections:	Pigtail or 3m cable			
Cable details:	8 core screened, 7/0.2, 0.22 mm ² stranded.			

Mounting

Fitting the SP1 Reader:

- 1) Identify a suitable location for the reader. It should be fitted at a convenient height near to the door that it controls.
- 2) Mark out the position of the unit and then drill holes for mounting screws and the cable.
- 3) Feed the cable through the wall and terminate it either at the access controller or in a suitable terminal box.
- 4) Screw the reader to the wall.
- 5) Fit the label once the reader has been fully installed and you are confident that the unit will not need to be moved.



Wiring

Core colour	Function
Red	+VDC
Black	Ground
Yellow	LED input
Green	Wiegand Data 0 / Data
White	Wiegand Data 1 / Clock
Brown	Beeper input
Orange	Format select (see below)
Blue	Serial Data Output

Format Select:

The output format is selected by connecting 'Format Select' to either Ground or +VDC as follows:

Models	Connect to Ground	Connect to +VDC
SP1-EM1 SP1-HT1 SP1-HT2	10-Digit Clock & Data	26-Bit Wiegand
SP1-DP1	26-Bit Wiegand	44-Bit Wiegand

Reader Operation

The red LED lights when power is connected. The green LED is normally off.

When a token or card is presented, the green LED blinks and the beeper sounds briefly.

The green LED lights while the LED line (yellow) is pulled low (typically indicates that the door is unlocked).

The beeper sounds while the beeper line is pulled low.

NOTE: The output lines of the reader are fed by an open collector transistor - a biasing resistor may be required on some host controllers for correct operation. Please refer to the controller reference documentation.

Power & Testing

Connect power to the controller and ensure that the red LED lights.

Present a valid card to the reader and check that the green LED blinks and the beeper gives a short beep.

Ensure that the LED and beeper respond to the access controller as expected. This will depend upon how you have wired the reader and the way in which the access controller operates.

If the card details are not recognised by the access controller, check all connections and ensure that you have connected the 'Format Select' input correctly according to the table on page 3.

Note: If the LED does not give any indication when a card is presented, it is likely that the reader technology does not match that of the card.