

Name : 13.56MHz Mifare Contactless Smart Card Mini-Type Reader

Model No. : PP-110/M

- Specifications :**
- Transmit frequency: 13.56MHz
 - Dimension: 94 (L) x 43(W) x 15(H) mm
 - Weight: 90g
 - Mounting: Surface Mount
 - Reading Range: 5cm ~ 8cm
 - Operating Temperature: -20°C ~ 60°C
 - Humidity: 10%~90% RH, Non condensation
 - Power supply: 6 V DC~18 V DC

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** : We reserve the right to change the specification without prior notice or obligation.

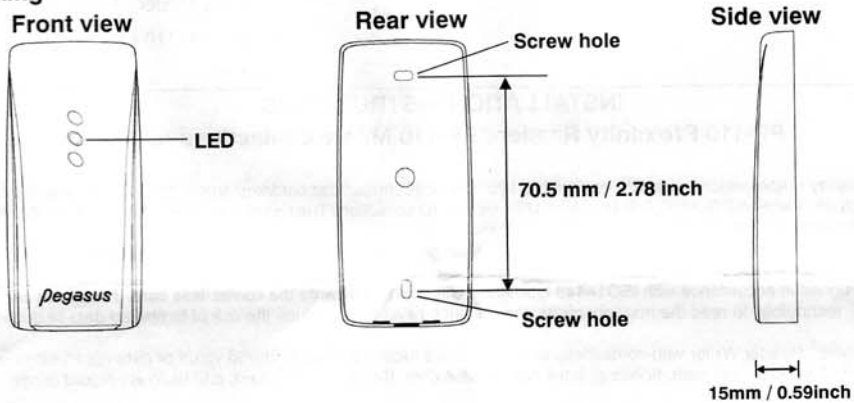
Product Description

- Read ISO14443A type Mifare smart card UID serial number.
- Reading range: 50mm~80mm.
- Interfaces:Wiegand, ABA Track2, RS-232, RS-485.
- Mini-Type, Surface Mount.

Product Image



• **Outlooking**



• **Communication protocol**

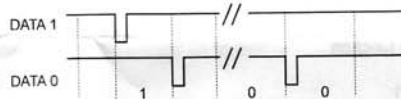
A. Serial interface (RS-232C / RS-485)

1. Transmission rate: 9600 bps , N , 8 , 1
2. Sending method: Directly sent out after reading
3. Format specification: Hex data in ASCII format
 Example : If the card read data is 1C3DA576B9
 Then the output ASCII code is : 31H, 43H, 33H,44H,41H,35H,37H,36H,42H,39H

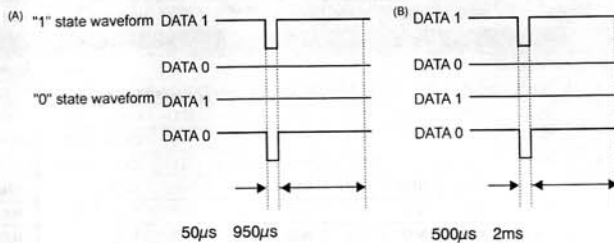
B. Wiegand data format

Please note the Wiegand input of the controller must be pulled high to suitable voltage (5V or 12V, depending on its input voltage level). Otherwise, extra pull high resistors must be wired)

1. data string example



2. "0", "1" definition



3. Parity calculation

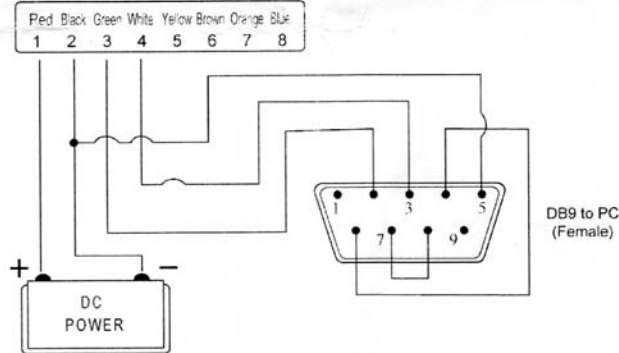
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|-----------------|---|---|---|---|---|---|---|---|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|---|
| bit 1(MSB) | | | | | | | | | | | | | bit 26(LSB) | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| P | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | P |
| P | E | E | E | E | E | E | E | E | E | E | E | E | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | O | O | O | O | O | O | O | O | O | O | O | O | O | P |
| Even parity (E) | | | | | | | | | | | | | Odd parity (O) | | | | | | | | | | | | | |

bit 1 (MSB)

bit 34 (LSB)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | | |
| P | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | P | | |
| P | E | E | E | E | E | E | E | E | E | E | E | E | E | E | E | E | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | O | P | |
| Even parity (E) | | | | | | | | | | | | | | | | | Odd parity (O) | | | | | | | | | | | | | | | | | | |

• **8 Pin Connector(for RS-232C Interface)**



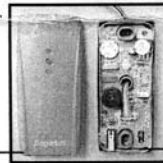
• **How to dismantle :**

1.



Please take a parallel screwdriver to dismantle the upper cover from the bottom plate with carefulness.

2.



Upper cover ←

→ Bottom plate

• **How to order :**

