# Multi-Card Technology Reader - 13.56MHz, DesFire EV1 / EV2 and EM / HID

DFE-PROX-DUO



## User Manual

Please read these instructions carefully before operating the unit and keep for further reference.

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# Contents

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The Genie DFE-PROX-DUO is a multi-card technology reader in a sleek design.

**1.1 Product Features**

- Read 125KHz HID Prox and EM card and read full UID (56bits) or files content of DesFire EV1/EV2 card, supports both 3DES and AES encryption, and reading the Mifare sector at the same time Read mobile NFC
- Support on-site Reader Configuration Card to change certain parameters
- Tamper protection
- Front plate customisation and back lit design is available
- IP65 ingress protection
- Metal back plate allows the reader install on metal surface and back-to back without affecting the read range
- Universal back plate allows the reader be installed on different size of gang box
- Reverse power protection
- All input and output signals are protected against static charges
- All inputs are DC12V protected

**1.2 Product Dimensions**
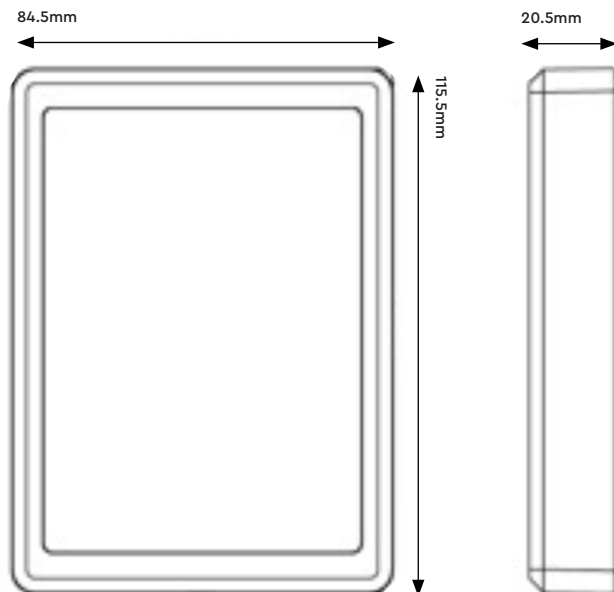
### 1.3 Specification

| | |
|---|---|
| Re-configure Window | 5 seconds (Default) or Half an hour after power up |
| Reader Output Format | CSN/UID 32bits, 34bits, 56bits (backward/forward), file content reading for programmed ID |
| Wiegand Plus Width | Different choices to fit with different controller's requirements |
| Buzzer Control | Reader & controller control (Default) or controller control only |
| LED/Back Lit Control | Define different LED colour response base on LED input |
| Typical Read Range | 2 – 3 cm |
| Reader Standard Output | Wiegand (RS232 & RS485 (OSDP) (optional) |
| Wiring Distance | 150m (22 AWG with shielded cable) |
| Operating Voltage | DC10 – 15V |
| Operating Current | 150mA (max) |
| Operating Temperature | -30°C – 70°C |
| Operating Humidity | 10% – 90% |
| Dimensions | 115.5 × 84.5 × 20.5mm |
| Weight | 210g |

### 1.4 Mounting

1. Install the metal plate on the wall with two or four screws, which depends on different kinds of gang box being installed (1).
2. The cover shall clip on the upper edge (2) the push in the bottom part as show in diagram (3).
3. Tighten the secure non-dropout screw, which located underneath of the reader to fix the reader and the back plate (4), installation is completed.

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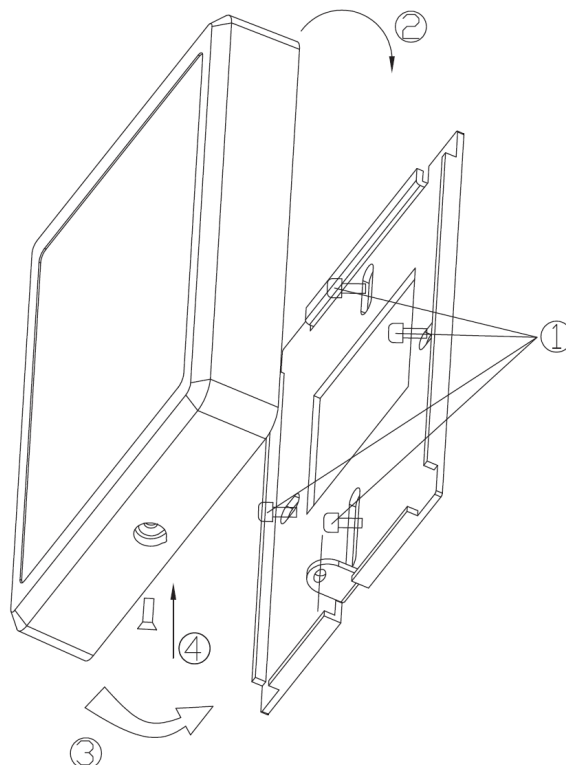
### 1.5 Recommendation

1. Linear DC Power Supply.
2. 22AWG shielded cable, it's required to do "one-point" ground. (As shown in the diagram)
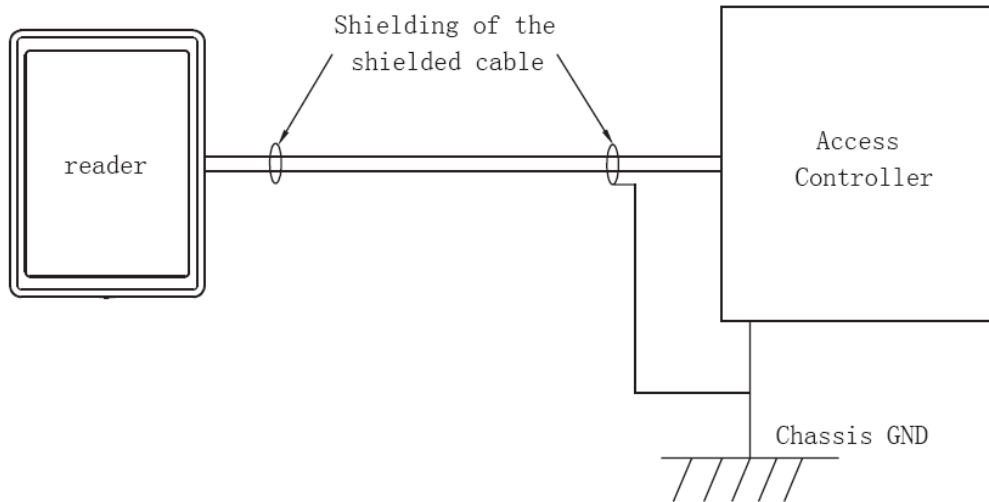


### 1.6 Wiring

| Colour | Label | Description |
|--------|-------|-------------|
| Red | +12V dc | Power Supply to the reader |
| Black | GND | Signal GND |
| Green | Data0 | Wiegand Output data, D0 |
| White | Data1 | Wiegand Output data, D1 |
| Yellow | RED LED | RED LED control, active low. |
| Blue | Green LED | Green LED control, active low |
| Brown | Buzzer | Buzzer input, active low |
| Orange | Tamper | Tamper output (open collector, Active low, max 100mA) |
| Purple | Doorbell | Doorbell output (open collector, +5Vdc output ≤ 5mA) |

### 1.7 Power Sequences

1. When reader is powered up, the Red back will flicker for 5 seconds. The reader will beep once and the reader is in Ready mode.
2. Present the card. The Blue LED will flicker once, buzzer will beep once.
3. When card is present and read by the reader, blue back lit will flash once; and buzzer will beep once as well. The card data will then transmit to the controller. After, weather the back lit of the reader will remain ON or Flash or change to Green or Red colour, this shall depend on the Green and Red LED inputs.
4. For number pad reader, when a number is pressed and successfully detected, the back lit under the number will flash 1 time and the buzzer will beep once. The number being pressed will burst out by default (4 bits burst).

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### 1.8 Troubleshooting

**No response when power up**
Discount the power and confirm that the power supply cable is correctly connected (See "Wiring" above).
Check the input voltage is sufficient (See "Specifications" above).

**Auto Restart**
Check the input voltage is sufficient (See "Specifications" above).

**Cannot read card number correctly**
Check the format setting on the controller if it is the same as the card format. Use approved card (known format and Facility Code) to test.
Check if the shield cable is correctly connected to Classis Ground at ONE point only.

**Reader beeps but No card data info**
Check if data 0 & data 1 cable is correctly connected (See "Wiring" above).
Check the input voltage at the card reader end is correct (See "Specifications" above).

**Buzzer error**
Check if the buzzer cable is correctly connected (See "Wiring" above).

**Back lit error**
Check the Led cable is correctly connected (See "Wiring" above).
Use Default Configuration Card to set it back to normal.

**Keypad no response**
Power off reader for 5 seconds and power on again

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