FE-MF-FRW1

WIEGAND 34 & OSDP MIFARE CARD READER

Reader that allows the door to be opened when a remote key fob or card is used. Only authorized cards or key fobs will activate the device. Physical contact is not necessary. Proximity reader that uses an incorporated dipswitch configuration for addressing and protocol switching which can function with an autonomous or centralized system.

At a glance

- Fashionable design
- IP 54 Water protection
- Card type: 13.56 MHz MIFARE Card
- Output format: Wiegand 34 & OSDP
- Integrated Buzzer Output
- Easy installation
- Operating voltage: 12V DC
- Reading distance: 5 cm

PROXIMITY ACCESS CONTROL

Specification

RFID Card Type	13.56 MHz MIFARE
Output format	Wiegand 34, Clock-and-Data and RS-485 Half Duplex (OSDP)
Read direction	8HR10D
IP Rating	IP 54
Transmitting distance	100 m
Buzzer	Yes
LED	Yes
Built-in Relay	Yes
I/O Output for Exit button	Yes
Reading distance (Card)	5 cm
Reading distance (Key Fob)	1.5 cm
Operating Voltage	12V DC
Power Consumption	Up to 45 mA
Operating Temperature	-15 to 55°C
Operating Humidity	0% to 98%
Incorporated DIP Switch	Yes
Dimensions	105.2 x 47.5 mm
Impact Protection	IK 07
Material	Polycarbonate

CENTRALISED Technical Characteristics:
- Does not require physical reader-card contact. 5 cm (card) or 1.5 cm (key fob) reading distance.
- Acoustic and visual information for operations.
- Lock-release button entry, door sensor entry and lock-release relay (C, NO, NC).
- Reader cables central unit:
    - 2 wires (Power supply)
   - Shield twisted pair (data)

CENTRALISED Technical Characteristics with the Wiegand 34 protocol:
- The Wiegand (WG) readers provide the installation with greater protection from possible sabotage, as neither the reader nor the exit button connection is connected to the door opening mechanism. All the devices are connected to the door controller and as such cannot be interfered with. The door controller is installed in the interior (safe area) and the reader installed outside.
- The reader may be used with other door controllers that use the Wiegand 34 (WG) protocol.
- Cabling: 6 wires to the door controller.
    - D0 – data 0
    - D1 – data 1
    - LED – Led control from central unit
    - BUZZ – Buzzer control from central unit
    - 12V DC – Supply voltage
    - GND – Ground
- For more information, see the Technical Characteristics of the central unit (door controller)

CENTRALISED Technical Characteristics with the OSDP protocol:
- Open Supervised Device Protocol (OSDP™) is enabling better integration of security systems to support advanced applications and data encryption. This interoperable protocol could one day supplant the Wiegand standard for its ability to add significant feature sets.
- The OSDP™ protocol ensures secure data transmission and bi-directional communications between the reader and the controller.
- Supports AES encryption of bi-directional data (AES-128)
- Acoustic and visual information for operations through OSDP line. No extra wires needed.

OSDP Configuration:
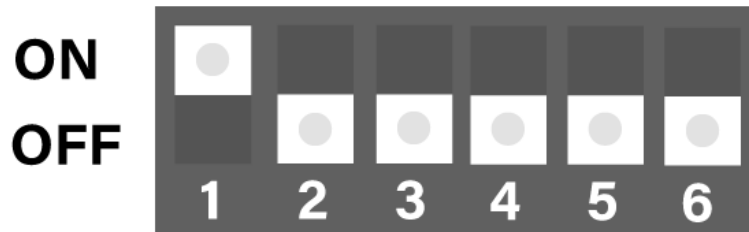
DIP 1	Boot mode
OFF	Normal Mode
ON	Boot Mode

DIP 6	Read Direction
OFF	8HN10D
ON	8HR10D

DIP 2	Reader Mode
OFF	OSDP
ON	Wiegand 34

| DIP 3	LSB
DIP 5	MSB

DIP 3	DIP 4	DIP 5	OSDP Address	Door in system
OFF	OFF	OFF	0	Door 1 – Reader A
ON	OFF	OFF	1	Door 1 – Reader B
OFF	ON	OFF	2	Door 2 – Reader A
ON	ON	OFF	3	Door 2 – Reader B
OFF	OFF	ON	4	Door 3 – Reader A
ON	OFF	ON	5	Door 3 – Reader B
OFF	ON	ON	6	Door 4 – Reader A
ON	ON	ON	7	Door 4 – Reader B
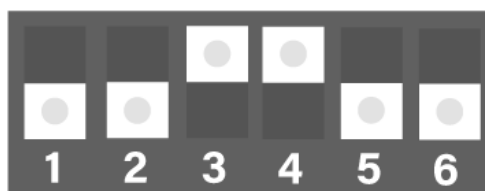
Example :
DIP Switch OSDP
setting for Door 2 - Reader B
Address 3

Note1: Every change you make to DIP Switch requires device to be rebooted so the settings will be applied.

Here is additional explanation on how DIP 6 controls the Read Format:
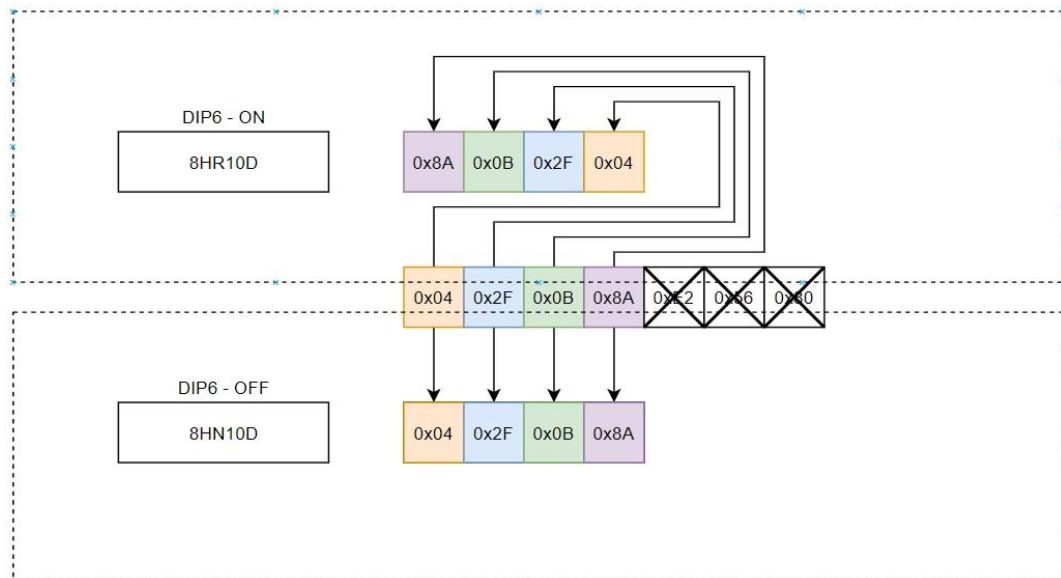
Note2: When there is a multiple readers connected, the last one in a line needs to have jumper plugged on the connector shown in the picture below. The jumper needs to be 120 Ω one.