



## PRODUCT INFORMATION



**Reference :** FD-020-230



**Protocols :** Wiegand



**Technologies :** Mifare Plus, Mifare Classic

## DESCRIPTION

The FD-020-230 Alpha reader is a dual-protocol reader. Thanks to a switch, the output switches from Wiegand to RS485.

The RS485 mode is specially developed for iPassan and increases the reader-controller distance to 1,000 m compared to 100 m for Wiegand.

In Wiegand mode, the reader is compatible with a wide array of controllers on the market.

It is designed to integrate the Urmet Alpha modular door entry panel system.

Key/reader security is optimal as FDI Mifare® Plus keys are used. These keys boast production-encoded AES 128 bit security that the Alpha reader checks when reading the key.

Finally, this reader is totally configurable via the web portal <https://partner.fdimatelec.com/>

The Wiegand output format, the LED behaviour as well as the type and security of the keys/passes to manage is defined on the screen and then encoded in a configuration key/pass that is also secure.

When this configuration key is shown to the reader, the reader integrates the new settings.

## KEY CHARACTERISTICS

- Reader default-compatible with FDI Mifare® Classic and Mifare® Plus (AES 128 bit encryption)
- Configurable Wiegand protocol
- Integrated LEDs and buzzer
- Firmware can be updated remotely in RS485 mode

### Power supply

The Alpha reader draws its power supply from the FDI access controller.

### Communication

In RS485 mode, the reader two-way communicates permanently (FDI protocol) with the iPassan controller. As such, the controller is real-time aware if the reader is connected as well as its status.

In Wiegand mode, the reader sends a frame to the connected controller as soon as a recognized key/pass is presented.

## TECHNICAL CHARACTERISTICS

### Power supply

Operating voltage: 12V supplied by the controller via the 2 wires

### Outputs

- Wiegand output: up to 8 wires
- RS485 output: 2 power supply wires + 3 bus wires
- Max. cable length: 100 metres (Wiegand) / 1,000 m (RS485)
- Frequency: 13.56 MHz (Mifare® Classic and Mifare® Plus)

### Read distance

- Mifare® Classic : Up to 40 mm

### LEDs

- 3 colors: blue, red and green.
- Behaviour adjustable via iPassan Manager

### Temperature

- Operating: -20°C to 50°C
- Storage temperature: -20°C to 70°C
- Humidity : 85 RH max

### Size

- Size (L x l x H) : 125 mm x 90 mm x 26 mm
- Weight: 150g

## COMPLEMENTARY ASSOCIATED PRODUCTS

- FD-020-227 : Alpha reader