



## PRODUCT INFORMATION



**Reference** : FD-020-239



**Protocols** : RS485, Wiegand



**Technologies** : Mifare Plus, Mifare Classic

## DESCRIPTION

The FD-020-239 reader is specially designed for Urmet Sinthesi S2 door entry panel systems. It has two output protocols. 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.

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 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 Sinthesi S2 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.

### Updating firmware

Wiegand / RS485 Sinthesi S2 reader firmware can be updated via iPassan Manager software (RS485 mode only).

## TECHNICAL CHARACTERISTICS

### Power supply

Operating voltage: 12V supplied by the controller / or by third-party RS485-mode supply

### Outputs

- Wiegand output: up to 8 wires
- Max. cable length: 100 metres via Wiegand / 1,000 metres via RS485
- Frequency: 13.56 MHz (Mifare® Classic and Mifare® Plus)

### Read distance

- Mifare® Classic : Up to 30 mm depending on the key/pass
- Mifare® Plus : Up to 20 mm depending on the key/pass

### LEDs

- 3 colors: blue, red and green
- Behaviour adjustable via iPassan Manager (RS485)

### Temperature

- Operating temperature: -20°C to 60°C
- Storage temperature: -20°C to 70°C
- Humidity : 85 RH max.

### Size

- Size (L x l x H): 85 mm x 85 mm x 16 mm
- Weight: 250g

## COMPLEMENTARY ASSOCIATED PRODUCTS

- [FD-020-237](#) : 34 bit – Sinthesi Steel – Proximity reader
- [FD-020-238](#) : S2 – Sinthesi reader