# ATS1181M

## Secure MIFARE DESFire EV1/EV2/EV3 card reader with PIN, output and RTE input in slim design, prepared for Mobile solutions

### Product overview

The ATS MIFARE DESFire EV1/EV2/EV3 readers connect directly to the control panel using the ATS databus. Communication to Advisor Advanced control panels is AES encrypted. In secure mode, card to reader data is also AES encrypted providing secure communication from the card to the processing unit. The readers are configured locally through keypad and control panel menu and the address is configures using the ATS1482 addressing card. Select secure cards from the ATS145x secure card series. The reader is also prepared to support future mobile credentials.
The reader offers a Request To Exit input and one open collector output that can be used to control a door relay or door strike.

The ATS118xM Mifare Desfire readers are designed to transfer card data in a secure and reliable way in various environments. The card data is by default secured by an Aritech own security key, but can be changed easily in Advisor Advanced control panels to any custom required key.
The readers can optionally be set to read MIFARE CSN numbers instead in unsecure mode.

### Communication

The reader communicates in a secure way over the Advisor databus to Advisor control panels using AES encryption, securing the data from the card until being processed.

### Design

The unique design of the housing guarantees that the reader can be used in the most demanding surroundings having IP67 and IK-09 rating. The reader can be installed directly on to a metal surface without any insulation.
Mounting brackets and weather protection covers provide extend the available applications.




### Details

- Secure ATS MIFARE DESFire EV1/EV2/EV3 reader with PIN keypad
- Prepared for Mobile Credentialing using Bluetooth
- Supports Secure Mifare (secure mode) or Mifare 4 or 7 byte CSN/UID (Unsecure mode)
- Use secure ATS145x series cards or customer cards
- Secure communication using AES-128 bit encryption between reader and Axon / Advisor Advanced / CDC4 control panel
- Robust molded plastic housing in slim design
- Indoor or outdoor mounting
- ATS bus interface
- Request To Exit input
- Open Collector Output (door open)
- Supported as of Advisor Advanced MR4.8 and Axon MR1.0

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## Technical specifications

### System

| | |
|---|---|
| Reading distance | Secure: max. 2 cm<br>Unsecure: max. 5 cm<br>Bluetooth depending mobile device and settings |
| Max. reader distance to panel | 1500 m |
| CSN (Card Serial Number) | Yes |
| Custom data model | Yes |
| Supported card types | MIFARE® DESFire UID, MIFARE® DESFire® EV1, MIFARE® DESFire® EV2, MIFARE® DESFire® EV3 |
| Addressing type | Card Addressing |
| No. of LEDs | 3 |

### Technology

| | |
|---|---|
| Reader type | Smart Card |
| Reader operating-transmitting frequency | 13.56 MHz |
| Supported technology 13.56 MHz | MIFARE Classic (CSN), MIFARE DESFire (CSN), MIFARE DESFire EV1 (Aritech), MIFARE DESFire EV1 (CSN), MIFARE DESFire EV1 (custom data), MIFARE DESFire EV2 (Aritech), Mifare DESFire EV2 (CSN), Mifare DESFire EV2 (custom data), MIFARE DESFire EV3 (CSN), MIFARE DESFire EV3 (custom data) |
| Mifare type | ISO14443A |
| No. of Mifare bytes CSN | 4 Bytes (non-unique), 4 Bytes (S50), 7 Bytes (S50), 7 Bytes (S70) |

### Interface & connections

| | |
|---|---|
| Interface | ATS RS-485 |
| Connector type | Pigtail |
| Pigtail length | 2 m |

### Inputs/outputs

| | |
|---|---|
| Inputs | Request to exit |
| Outputs | 1 Open Collector (10 mA) |

### Tamper type

| | |
|---|---|
| Pry-off tamper | Yes |

### Operation

| | |
|---|---|
| Stand-alone | No |
| PIN keypad | Yes |
| PIN length | Defined by control panel |

### Electrical

| | |
|---|---|
| Operating voltage | 10.8 to 30 VDC |
| Current consumption | 55 mA @13.8 VDC normal<br>85 mA @13.8 VDC max. |

### Physical

| | |
|---|---|
| Physical dimensions | 140 x 44 x 20 mm |
| Net weight | 240 g |
| Shipping weight | 275 g |
| Colour | Black |
| Material | Plastic |
| Form factor | Slimline |
| Mounting Type | Surface mount |

### Environmental

| | |
|---|---|
| Operating temperature | -40 to +55°C |
| Storage temperature | -40 to +55°C |
| Relative humidity | <95%, noncondensing |
| Environment | Indoor, Outdoor |
| IP rating | IP67<br>IK09 |

### Regulatory

| | |
|---|---|
| Compliancy | CE |




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