

# MIFARE DESFire EV3 Credentials

## Datasheet



### 1. Introduction

Rosslare offers a large selection of high-quality, long-lasting credentials that are compatible with today's most popular devices and are recognized for their high number of possible reads. The MIFARE® DESFire® EV3 smart card credentials have the highest level of security and are ideally suited for a variety of applications and environments where security is important while keeping the solution cost-effective.

### 2. General Description

The MIFARE DESFire EV3 smart card credentials use AES-128 (Advanced Encryption Standard) for authentication, encryption, and data integrity.

The smart card credentials are available as an ISO card or in a key FOB form factor. For the ISO card, a photo ID image can be directly printed on the card by inkjet or it can be added via thermal transfer. For a key FOB, programmable laser engraving of an ID and the facility code is available.

### 3. Open to Secure

Rosslare's credentials and programming platform comprises a highly secured line of card readers compliant with existing access control systems. The platform allows a choice between open key and preconfigured readers and credentials. The open key and credential management solution for MIFARE DESFire® EV3 includes the tools to configure everything in-house in order to secure a facility and access by managing reader and credentials settings. The preconfigured readers and credentials have distinct custom keys and security configuration that are made during production. This helps to further reduce the cost of ownership. Rosslare provides MIFARE DESFire EV3 credentials either programmed or blank.

Using the Rosslare CP-R27 desktop programmer and KeyCard Studio software, customers can make configuration cards for the reader settings and quickly make MIFARE DESFire® EV3 credentials with user data.

### 4. Main Features

- 13.56 MHz Smart card technology
- 2 kB/4 kB/8 kB memory
- Flexible memory structure
- AES-128 for authentication, encryption, and data integrity
- Fast data transfer speed up to 848 kbit/s

- ISO card form factor with optional inkjet printing
- Shark, twist, and ring key fob form factors with optional laser engraving

## 5. MIFARE DESFire EV3: Not Programmed Catalog List

| Part Number     | Type           | Memory Size | Form Factor     | Credential Format | ID Printing   |
|-----------------|----------------|-------------|-----------------|-------------------|---------------|
| AT-V2S-000-0000 | Not Programmed | 2K          | ISO Card (PVC)  | Not Programmed    | No ID Printed |
| AT-V4S-000-0000 |                | 4K          |                 |                   |               |
| AT-V8S-000-0000 |                | 8K          |                 |                   |               |
| AT-V2K-000-0SB0 | Not Programmed | 2K          | Key FOB (Shark) | Not Programmed    | No ID Printed |
| AT-V4K-000-0SB0 |                | 4K          |                 |                   |               |
| AT-V8K-000-0SB0 |                | 8K          |                 |                   |               |
| AT-V2K-000-0RB0 | Not Programmed | 2K          | Key FOB (Ring)  | Not Programmed    | No ID Printed |
| AT-V4K-000-0RB0 |                | 4K          |                 |                   |               |
| AT-V8K-000-0RB0 |                | 8K          |                 |                   |               |
| AT-V2K-000-0TB0 | Not Programmed | 2K          | Key FOB (Twist) | Not Programmed    | No ID Printed |
| AT-V4K-000-0TB0 |                | 4K          |                 |                   |               |
| AT-V8K-000-0TB0 |                | 8K          |                 |                   |               |

## 6. Technical Specifications

| OPERATIONS | ISO Card                   | Key FOB (Shark)            | Key FOB (Ring)             | Key FOB (Twist)            |
|------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Frequency  | 13.56 MHz                  | 13.56 MHz                  | 13.56 MHz                  | 13.56 MHz                  |
| Read Range | Within 30 mm<br>(1.18 in.) | Within 20 mm<br>(0.79 in.) | Within 20 mm<br>(0.79 in.) | Within 20 mm<br>(0.79 in.) |

| ENVIRONMENT                 | ISO Card                         | Key FOB (Shark)                  | Key FOB (Ring)                   | Key FOB (Twist)                  |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Operating Temperature Range | -10°C to 50°C<br>(14°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) |
| Operating Humidity Range    | 0% to 90%<br>(non-condensing)    | 0% to 90%<br>(non-condensing)    | 0% to 90%<br>(non-condensing)    | 0% to 90%<br>(non-condensing)    |
| Operating Storage Range     | -20°C to 50°C<br>(-4°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) | -20°C to 50°C<br>(-4°F to 122°F) |

| HARDWARE               | ISO Card                                         | Key FOB (Shark)                                  | Key FOB (Ring)                                 | Key FOB (Twist)                                  |
|------------------------|--------------------------------------------------|--------------------------------------------------|------------------------------------------------|--------------------------------------------------|
| Material Type          | PVC                                              | PC                                               | PC                                             | PC                                               |
| Color                  | White                                            | Black                                            | Black                                          | Black                                            |
| Surface Finish         | Glossy                                           | EDM Texture                                      | EDM Texture                                    | EDM Texture                                      |
| Dimensions (H x W x D) | 85.6 x 54.0 x 0.8 mm<br>(3.37 x 2.13 x 0.03 in.) | 37.0 x 61.9 x 4.6 mm<br>(1.46 x 2.44 x 0.18 in.) | 50.1 x 41.0 x 6 mm<br>(1.97 x 1.61 x 0.24 in.) | 44.0 x 35.0 x 8.1 mm<br>(1.73 x 1.38 x 0.32 in.) |
| Weight                 | 5.7 g (0.2 oz)                                   | 4.7 g (0.2 oz)                                   | 3.8 g (0.1 oz)                                 | 5.9 g (0.2 oz)                                   |

7. Technical Drawings

Figure 1: ISO Card

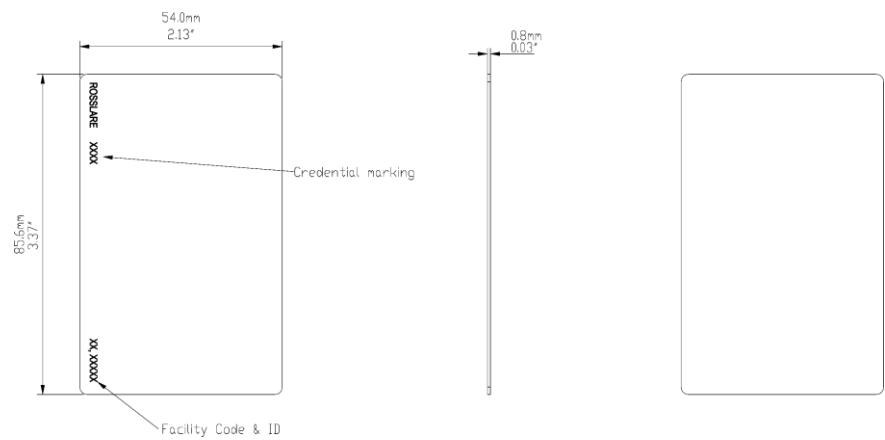


Figure 2: Key FOB (Shank)

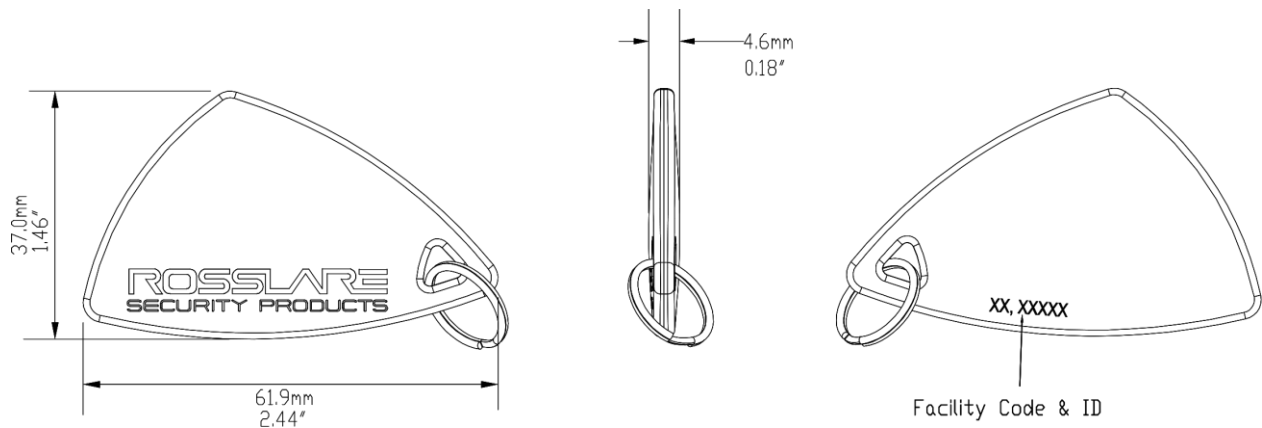


Figure 3: Key FOB (Ring)

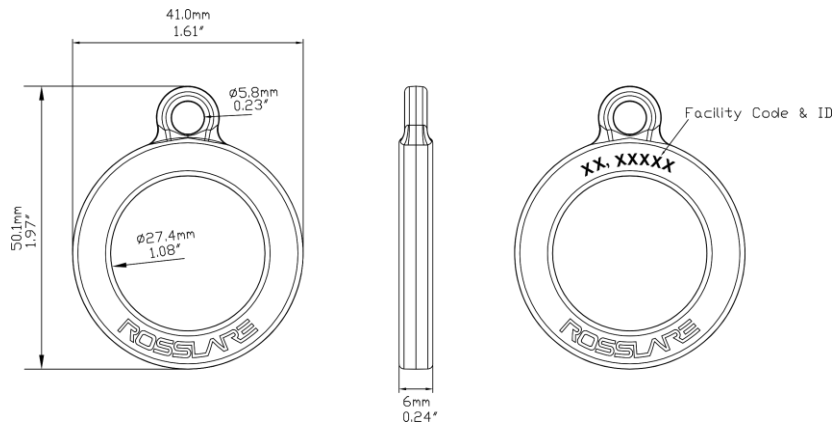
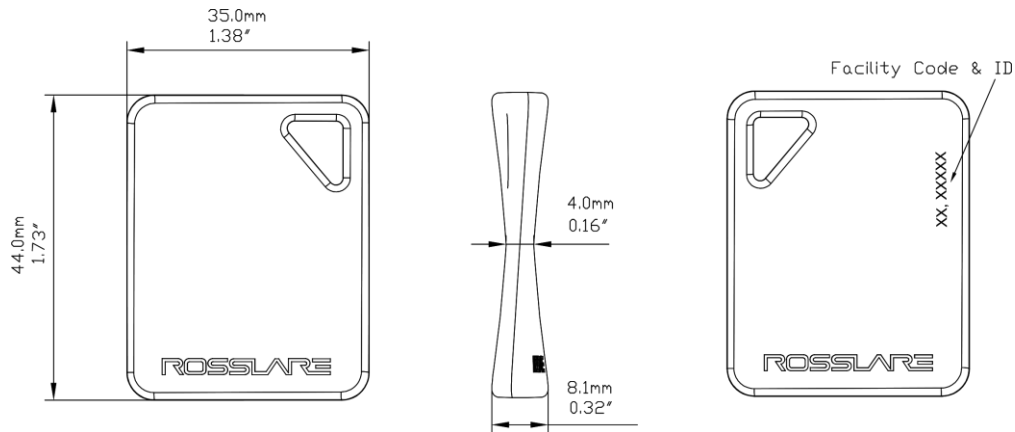


Figure 4: Key FOB (Twist)



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