



# SYMMETRY™

## S843 CONTACTLESS SMART CARD READER

The Symmetry S843 is a contactless smart card reader with LCD and keypad designed for government agencies adopting federal personal identity verification standards including FIPS 201. In addition to FIPS 201 the Symmetry S843 also reads standard NXP® MIFARE® and MIFARE® DESFire, smart cards.

The Symmetry S843 meets the requirements of the Government Smart Card Interoperability Specification GSC-IS v2.1 and the Smart Card Enabled Physical Access Control Systems Technical Implementation Guidance PACS v2.2.

MIFARE DESFire is an ideal fit for service providers and system integrators looking to develop convenient, multi-functional smart card-based systems for use in identity, e-government and other uses such as transportation, city loyalty and e-purse schemes.

The chip's core characteristics - Fast, Innovative, Reliable and Secure, as described by the 'Fire' part of its name - are supported by a unique combination of a flexible memory organization structure alongside impressive data transaction rates, making it ideal for secure contactless smart card services.

MIFARE DESFire operates at a maximum distance of 1"(25mm) and in accordance with the international standard ISO 14443, perfectly meets mid-end segment needs including security and cost effectiveness. DESFire cards feature high-speed triple-DES data encryption co-processor, a flexible memory organization structure, a mutual 3-pass authentication technique together with a true random number generator and an anti-tear mechanism to guarantee data integrity during contactless transactions.

The Symmetry S843 is designed for use with the multiNODE-1000, multiNODE-2, multiNODE-2000, multiNODE-2100 and multiNODE-2150 controllers and is compatible with Symmetry Business, Symmetry Professional, Symmetry Enterprise and Symmetry Global Software at Version 4.0 and later.

Unlike Wiegand interface readers, the Symmetry S843 uses secure, bi-directional, Pseudo-Random supervised communications between the multiNODE controllers and their associated readers. Both the reader and cable are supervised, and an alarm will sound if the reader is tampered with or communications lost.

A distance from the multiNODE controller to the Symmetry S843 of up to 3000ft (1000m) can also be achieved. The Symmetry S843 includes an LCD for verification of card accepted and of card rejected. The LCD display is also used for PIN prompt and to give verification of command functions initiated through the reader keypad.

### KEY FEATURES

- Reads both NXP MIFARE and MIFARE DESFire smart cards
- Secure, bi-directional, Pseudo-Random supervised communications
- Maximum read range of 1" (25mm)
- Integrated Door Pre-held warning buzzer is included
- Audible feedback provides positive confirmation of card read and key press
- LCD for verification of card accepted and card rejected
- LCD is also used for PIN prompt and to give verification of command functions initiated through the reader keypad



## SPECIFICATIONS

### Model Types

- Model Symmetry S843 - Card with keypad Contactless Smart Card Reader
- Available in ash, black and charcoal gray color

### Software

- The Symmetry S843 is only compatible with Symmetry Business, Professional, Enterprise and Global Software at Version 4.0 or later

### Communicating Distances

- multiNODE 1000/multiNODE 2/multiNODE 2000/ multiNODE 2100 controllers to Symmetry S843 (current loop) = 3000ft/1000m

### Dimensions inches (mm)

- Width = 3.8" (97mm)
- Height = 4.9" (125mm)
- Depth = 1.8" (45mm)

### Operating Environment

- -4°F to +158°F (-20°C to +70°C)
- 15% to 90% Humidity, non condensing
- Optional weather kit recommended when mounting outside

### Power Requirements

- Nominal 12VDC (9-14V)
- Maximum current consumption 0.15 Amp

## APPROVALS

### Radio regulatory approvals

- FCC CFR47 Part 15.209
- EN 300 330 – 1 v1.3.1

### EMC Type Testing

- EN50130-4
- EN 50133-1:1997

### Access control product testing

- IP656: R & TTE Directive 1999/5/EC

## PURCHASING INFORMATION

- 843-KP-AG - Ash Gray
- 843-KP-CG - Charcoal Gray
- 843-KP-BK - Black
- 843-AG - Ash Gray, No Keypad
- 843-CG - Charcoal Gray, No Keypad
- 843-BK - Black, No Keypad



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