



Symmetry™ S843 Contactless Smart Card Reader Datasheet

KEY FEATURES

- Reads both NXP MIFARE and MIFARE DESFire smart cards
- Supports DESfire EV3 cards in backwards compatibility mode
- 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

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 NCP 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, and perfectly meets mid-end segment needs including security and cost effectiveness. DESFire cards feature a 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 3000 ft (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.



SPECIFICATIONS

Model Types

- Symmetry S843 – Card with Keypad Contactless Smart Card Reader
- Available in ash gray, 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) = 3000 ft/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, noncondensing
- Optional weather kit recommended when mounting outside

Power Requirements

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



APPROVALS

Radio Regulatory Approvals to:

- 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