

Symmetry™ S853 Contactless Access Card Reader

Datasheet

KEY FEATURES

- Combined contact and contactless card reader
- Fully supports the Common Access Card (CAC)
- GSC-ISV2.1 compliant
- ISO 14443 1-4 compliant ISO 7816 compliant
- Offer triple technology – contact/contactless/magstripe
- Can also read NXP MIFARE® Cards typical read range of 0.5-1.2” (10-30mm)
- Supports DESfire EV3 cards in backwards compatibility mode
- Secure, bi-directional, pseudo-random supervised communications
- Integrated door pre-held warning buzzer is included Audible feedback provides positive confirmation of card read and key press. Audible feedback provides positive confirmation of card read and key press" is a separate bullet
- An LCD is included for verification of card accepted and card rejected
- The LCD is also used for card PIN number prompt
- Programmable command functions through the reader keypads

The Symmetry S853 is designed to read the Common Access Card which combines both a microprocessor contact “chip” (complying with ISO 7816) and NXP MIFARE® DESFire contactless smart card format.

Designed to meet the increasing demands for high speed, triple-Data Encryption Standard (DES) secured contactless smart card solutions, 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 and e-government as well as 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 flexible memory organization structure alongside impressive data transaction rates, making it ideal for secure contactless smart card services.

MIFARE DESFire operates at a distance of 0.5-1.2” (10-30mm) and in accordance with the international standard ISO 14443, perfectly meets mid-end segment needs including security and cost effectiveness. It features a non-volatile memory, 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.

Unlike Wiegand interface readers, the Symmetry S853 uses secure, bi-directional, pseudo-random supervised communications between the Symmetry 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 any of the Symmetry multiNODE controllers to the Symmetry S853 reader of up to 3000 ft (1000m) can also be achieved.

The Symmetry S853 includes an LCD for verification of card accepted and of card rejected. This LCD is also used for card PIN number prompt and for verification of command functions initiated through the reader keypad. There is also an integrated buzzer for confirmation of card read and local door pre-held warning alarms. This integrated buzzer is also used to give audible feedback for positive confirmation of key press for card PIN number entry.



SPECIFICATIONS

Model Types

- Symmetry S853 Common Access Card (CAC) reader with keypad
- Available in ash gray color

Power Requirements

- Nominal 12VDC (9-14V)
- Maximum current consumption 0.16 amp

Communicating Distances

- Symmetry multiNODE-2/ Symmetry multiNODE-2000/Symmetry multiNODE-2100 controllers to Symmetry S853 (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, non-condensing
- Optional weather kit recommended when mounting outside



APPROVALS

Radio Regulatory Approvals

- EN 300 330

EMC Type Testing

- ETS 300 330 EN 60950:2000
- EN 50357

Access Control Product Testing

- EN 50133-1:1997
- FCC CFR47 Part 15 Subpart C

PURCHASING INFORMATION

- 853-KP-AG – ash gray
- 853-COMBI-63I - ash gray with integrated magstripe