SYMMETRY™
S849 CONTACTLESS SMART CARD READER

The Symmetry S849 is a contactless smart card reader with LCD and keypad designed for government agencies adopting federal personal identity verification standards. The S844 reader supports any badge based on FIPS 201 standards such as TWIC, FRAC, PIV or CAC credentials. In addition to FIPS 201 the Symmetry S849 also reads standard NXP® MIFARE® and MIFARE® DESFire smart cards.

MIFARE DESFire operates at a maximum distance of 2'' (50mm 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 to guarantee data integrity during contactless transactions.

The Symmetry S849 can simultaneously support two different card types/formats (e.g. non-encoded MIFARE and smartMAX encoded MIFARE DES re, or non encoded MIFARE and smartMAX encoded MIFARE). The reader is automatically configured to accept the first two card types/formats presented.

The Symmetry S849 is designed for use with the Symmetry door controllers and is compatible with Symmetry Professional, Symmetry Enterprise and Symmetry Global Software at Version 6.0 and later.

The Symmetry S849 uses MCLP (multiNODE Current Loop Protocol), secure, bi-directional, Pseudo-Random supervised communications between the door 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 Wiegand output is also provided to link the S849 to other access control panels.

A distance from the door controller to the Symmetry S849 of up to 1000m (3000ft) using MCLP or 100m (300ft) using Wiegand can be achieved.

Other key reader features include LED's for visual indication of card accepted or card rejected and an integrated buzzer for card read and door pre-held warning.

KEY FEATURES
- MCLP or Wiegand controller communications
- Reads both NXP MIFARE and MIFARE DESFire EV1 and EV2 smart cards
- Secure, bi-directional, Pseudo-Random supervised communications
- Maximum read range of up to 50mm (2'')
- Integrated Door Pre-held warning buzzer is included
- Audible feedback provides positive confirmation of card read and key press
- LED for verification of card accepted and card rejected

SPECIFICATIONS

Model Types
- Smart Card Reader
- Available in ash gray

Software
- The Symmetry S849 is compatible with Symmetry Professional, Enterprise and Global Software at Version 6.0 or later
- Wiegand output format and keypad transmission format

Communicating Distances
- All Symmetry door controllers to Symmetry S849 (current loop) = 1000m (3000ft)
- Wiegand = 100m (300ft)

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

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

Power Requirements
- Nominal 12VDC (9-14V)
- Maximum current consumption 80mA

APPROVALS

Radio Regulatory Approvals
- FCC CFR47 Part 15.209
- EN 300 330 - v1.3.1

EMC Type Testing
- EN301489

Access Control Product Testing
- IP54 - R & TTE Directive 1999/5/EC

PURCHASING INFORMATION
- 849-KP-AG - Ash Gray

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