Symmetry™
EN-1DBC+ Edge Network Controller

Datasheet

KEY FEATURES

- Power over Ethernet+ (PoE+) support for controller, card reader(s) and door release which results in lower installation cost

- SNMP (Simple Network Management Protocol) enabled

- Switch selectable support for secure Symmetry MCLP or Wiegand reader communications

- Surface or wall switch mounted

- Accelerated network card download

- Support for 128- or 256-bit AES encryption of network communications

- Javelin LCD card reader message control

- Supports up to 90,000 cardholders

The Symmetry EN-1DBC+ is a powerful IP enabled access control edge device which provides advanced functionality to control any door. The built-in Power-over-Ethernet (PoE+) capability eliminates the need for a separate electric power supply and can substantially reduce installation cost per door. Alternatively, a local power supply can be used.

The edge network controller contains all of the distributed intelligence and advanced features of any Symmetry access control system including AES 256-bit data encryption. The cost effective EN-1DBC+ is supplied in a small tamper monitored polycarbonate enclosure which will normally be installed on the wall on the secure side of the door.

Uniquely the EN-1DBC+ can be expanded to support two doors through the addition of a reader module within the same enclosure.

In addition to the standard door control and monitoring capabilities, the EN-1DBC+ also provides two general purpose inputs and one general purpose output for monitoring and control of other security equipment. This is doubled when the second reader is added, or alternatively an Input/Output module can be added to provide eight additional inputs and two outputs.

READER TECHNOLOGIES & CARD FORMATS

The Symmetry Edge Network Controller supports a full range of reading technologies including Smart Card, Proximity, Magnetic Stripe and Biometrics, and supports both Symmetry MCLP and Weigand card readers. A number of default card formats are programmed as standard and there is a capability for custom formats to be defined. This is particularly important when integrating existing cards with a new system.

SYMMETRY EDGE NETWORK CONTROLLER CONFIGURATIONS

The enclosure has a removable lid and tamper switch as standard. The Symmetry edge network controller can be powered using PoE, PoE+, or locally via a 12VDC supply. When powered using PoE+, 1500mA total is available for reader and lock power.

TECHNICAL DETAILS

The Symmetry edge network controller contains the system databases, performs the transaction processing and controls system communications. It is supplied as standard with memory for up to 90,000 cardholders and 18,000 offline transactions.

The Symmetry edge network controller incorporates flash memory supporting downloadable firmware and allowing firmware enhancements via a PC, simplifying upgrades and minimizing installation time.

SPECIFICATIONS

Management Software

- Requires Symmetry Business, Professional or Enterprise v8.0.2 or later (I/O Expansion Module v8.1 or later)

Dimensions (Including Enclosure)

- Length: 7.3 in (185 mm)
- Width: 5.8 in (147 mm)
- Depth: 2.0 in (50 mm)

Operating Environment

- +32°F to +122°F (0°C to +50°C)
- 15% to 90% humidity, non-condensing

Communication Distances

- Door Controller to secure Symmetry 20mA reader (MCLP) = 3,000 ft (1,000 m) when reader powered locally
- Door controller board to Wiegand reader = 325 ft (75 m)

Reader Ports

- 1 x switch selectable MCLP 20mA current loop or Wiegand
- 1 x door monitor inputs 2/3/4 - state supervision
- 1 x exit request inputs 2/3/4 - state supervision
- 1 x door lock relay outputs (changes to two of each when reader module added)
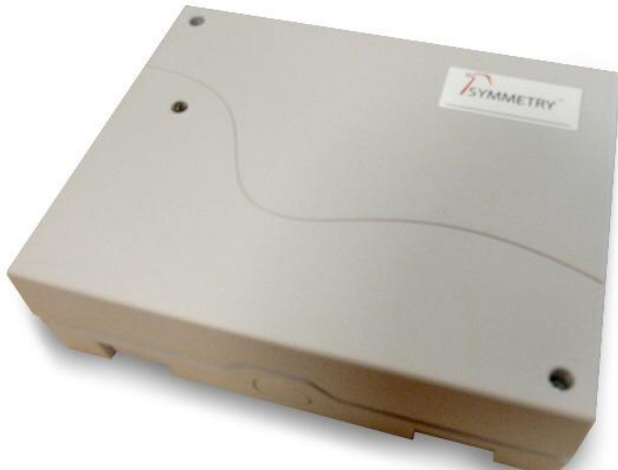
Inputs:

- 2 x general purpose inputs 2/3/4/6 state supervision (additional two when reader module added or additional eight when I/O module added)

Outputs:

- 1 x general purpose relay output (additional one when reader module added or additional two when I/O module added)

Storage Capacities

- Up to 90,000 cards and 18,000 offline transactions

Ratings

- Local input supply: 2.0A @ 12VDC

- Combined output current available for all devices when powered via controller:

  - Input PoE 802.3af: 750mA max @12VDC

  - Input PoE+ 802.3at: 1.5A max @12VDC

  - Local supply: 1.5A max @ 12VDC

- Relay outputs and door-release relay contact rating: 28VDC, 3A maximum

- Reader output: 12VDC 500mA max per reader

Compliance:

- UL294, UL294B

- PoE 802.3af, PoE 802.3at, EN50133 1999/5/EC

PURCHASING INFORMATION

- EN-1DBC-PLUS
  - EN-1DBC+

- EN-1DBC-PLUS-RDR-MOD
  - Additional Reader Module

- EN-1DBC-PLUS-IO-MOD
  - Input/Output Module