

# EDGE EVO® EHR40-K Controller/Reader and Module

Interface to Standard Door REX, DPS and Lock



## SINGLE DOOR NETWORKED ACCESS CONTROLLER/ CONTACTLESS ICLASS® READER AND INTERFACE MODULE

- **Open Architecture** – Development platform enables use of hardware with any OPIN compliant access control software from a wide variety of partners.
- **Integrated Reader** – Integrated controller/reader provides 13.56 MHz iCLASS® smart card compatibility and controller logic in one device.
- **Power Over Ethernet (PoE)** – Reduces wiring costs by powering controller/reader and module/door components using one CAT-5 wire.
- **High Security** – Increased security with encrypted data exchange around the door and between controller and Hi-O iCLASS® Readers; connect discrete door devices through separate interface module installed in secure area.

### Cable Specifications

#### Ethernet:

- 300ft (100m), CAT-5
- ALPHA 9504C, ALPHA 9405F

#### Input Circuits:

- 500ft (150m), 2-conductor shielded
- 22AWG ALPHA 1292C
- 18AWG ALPHA 2421C

#### Output Circuits:

- 500ft (150m), 2-conductor shielded
- 22AWG ALPHA 1172C
- 18AWG ALPHA 1897C

#### Hi-O CANbus:

- 100ft (30m) total bus length
- 30ft (10m) length between drops
- 22AWG, 0.65mm, 0.33mm<sup>2</sup>

HID Global's Networked Access Solutions provide an open architecture development platform that enables HID's software partners to deploy a wide variety of versatile access control systems that protect their customers' hardware investments.

As part of HID Global's Networked Access Solutions family, the EDGE EVO® EHR40-K controller/reader and interface module package is a single-door access control panel with reader and separate discrete door interface that enables cost-effective installation and high performance access control functionality.

The controller/reader is installed at the door, and the included Hi-O interface module is mounted separately in a secure location. The controller/reader and module

are connected using the secure Hi-O bus and the Hi-O module provides interface to four discrete inputs and two outputs. An additional Hi-O iCLASS® reader can be attached to the EHR40-K controller/reader's Hi-O bus for in/out reading.

The EHR40-K will also accept a second Wiegand / Clock-and-Data reader using an additional Hi-O Interface Module (sold separately). The integrated reader also offers interface to 13.56 MHz compliant credentials, including iCLASS.

Solutions are created for both on site system administration as well as service oriented off-site solutions, depending on the OEM software provider's total solution.



#### Features:

- Provides a complete and fully functional hardware/firmware infrastructure for IP access control software host systems.
- Supports Power Over Ethernet (PoE), enabling cost-effective installation utilizing existing network infrastructure.
- Stores a complete access control and configuration database for one door with one or two readers and 125,000 cardholders.
- Integrated reader processes 13.56 MHz iCLASS credentials, ISO14443A CSNs.
- Provide access control processing, host functionality and power for a single door, including one or two readers, lock, door status, request-to-exit device and auxiliary sounder.
- Utilizes module jumpers to select 12 or 24 VDC power to locks and AUX output when powering device over PoE or 24 VDC.
- Provides encrypted door bus using Hi-O technology so that controller and Hi-O enabled readers and door components communicate securely.
- Connects to the host and other devices on a TCP/IP network.
- Receives and processes real-time commands from the host software application, while reporting all activity to host. Buffers up to 99,999 transactions.
- Can connect directly to a Hi-O iCLASS reader to support 2 reader in/out reading.

#### SPECIFICATIONS

<b>Model (and Part #)</b>	EHR40-K (82120CKI0001A)
<b>Mounting Holes</b>	US Single-gang and EU / APAC 60mm
<b>Dimensions - EHR40</b>	3.3" W x 4.8" H x 1.2" D (83.9 mm x 122.2 mm x 30.5 mm)
<b>Dimensions - EDM-M</b>	3.3" W x 5.0" H x 1.5" D (84.0 mm x 127.0 mm x 37.0 mm)
<b>Weight - EHR40</b>	6.3oz (180g)
<b>Weight - EDM-M</b>	4.9oz (140g)
<b>Housing Material</b>	UL94 polycarbonate
<b>Audio / Visual Indicators</b>	Two LEDs on RJ-45 port for network; beeper for boot and tamper
<b>Operating Temperature</b>	32° to 122° F (0° to 50° C)
<b>Operating Humidity</b>	5% to 95% relative, non-condensing
<b>Communication Ports</b>	Ethernet (10/100), Hi-O CANbus
<b>13.56 MHz Card Compatibility</b>	13.56 MHz iCLASS HID Application, ISO14443A CSN
<b>Certifications*</b>	UL294 (US) Listed Component, CSA 205 (Canada), FCC Class B (US), CE: EN 300 330, EN 301 489-3, EN 50130-4 (EU), C-Tick: AS/ NZS 4268 (Australia, New Zealand), IC: ICES-003 Class B (Canada), CE (EU), SRRC (China), KCC (Korea), NCC (Taiwan), iDA Singapore), RoHS
<b>Warranty</b>	Warrantied against defects in materials and workmanship for 18 months (see complete warranty policy for details).

Input Power	
<b>DC Input (MAX) @ PoE</b>	14.4W (300mA @ 48VDC)
<b>DC Input (MAX) @ AUX +12VDC</b>	18W (1500mA @ 12VDC)
<b>DC Input (MAX) @ AUX +24VDC</b>	36W (1500mA @ 24VDC)
<b>Supervised Inputs Power (MAX)</b>	0.025W (5mA sink, 5V nominal) 0 to +5VCD Ref

Output Power (MAX) for total system (all field devices)	
<b>DC Input @ PoE</b>	8W
<b>DC Input @ AUX +12VDC</b>	13.1W
<b>DC Input @ AUX +24VDC</b>	26.6W
<b>Hi-O CANbus Output Voltage, DC Input = PoE</b>	24VDC
<b>Hi-O CANbus Output Voltage, DC Input = AUX</b>	AUX +VDC

Output Power (MAX) for individual field devices, DC Input = PoE	
<b>Hi-O Device on CANbus</b>	8W (333mA @ 24VDC)
<b>Wet Output (@12VDC)</b>	6.9W (580mA @ 12VDC)
<b>Wet Output (@24VDC)</b>	8.6W (360mA @ 24VDC)

Output Power (MAX) for individual field devices, DC Input = 12VDC	
<b>Hi-O Device on CANbus</b>	13.1W (1092mA @ 12VDC)
<b>Wet Output (@12VDC)</b>	8.4W (700mA @ 12VDC)

Output Power (MAX) for individual field devices, DC Input = 24VDC	
<b>Hi-O Device on CANbus</b>	26.6W (1108mA @ 24VDC)
<b>Wet Output (@12VDC)</b>	8.4W (700mA @ 12VDC)
<b>Wet Output (@24VDC)</b>	16.8W (700mA @ 24VDC)

Relay Rating	
<b>Relay Contact Rating (Dry Output)</b>	2A @ 30VDC

#### NOTES:

\*For Plenum rating when installing EDM-M in secure area, install interface module within NEMA Type 1 Enclosure

Combined power of all field devices cannot exceed "Output Power (MAX) for total system. Power specifications are a compilation of individual component ratings for EHR40 and EDM-M.

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