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USA

# EDGE EVO®

## Door & Reader Module

EDWM-M

### INSTALLATION GUIDE

82363-901, Rev C.1

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The EDGE EVO Door and Reader module is designed for interfacing with the EDGE EVO Hi-O Networked Controller to electronic door components and a traditional Wiegand reader.

Designed for providing interface to traditional discrete access inputs and outputs, the Door component provides four analog/digital inputs and two outputs. Configure the Door component in two ways; as a primary door interface to REX, Door Position Switch, Battery Fail, Power Fail, Lock, and Aux (Group 1) or as a general purpose input/output module (Group 2).

Configure the Reader Module in two ways, either a Group 1 or Group 2 device. When two readers are present at one access control point, the secure reader side is assigned Group 1.

## Specifications

### Door Module

CONDITIONS			VOLTAGE DC (VDC)	CURRENT (Amp)	POWER (W)	OPERATING TEMPERATURE	CABLE LENGTH	UL REF NUMBER	
Input	DC Input (NSC)		+12 VDC	0.04 Amp	0.48	32° - 122°F (0° - 50° C)	<b>Inputs</b> = 500 ft (150 m) <b>Outputs</b> = 500 ft (150 m) <b>Hi-O CAN Bus</b> Total Length 100 ft (30 m) - 22 AWG • 0.65mm • 0.33mm <sup>2</sup> Maximum between drops 30 ft (10 m) 22 AWG • 0.65mm • 0.33mm <sup>2</sup>	MEDMAxNN x = K for Black G for Grey	
			+24 VDC	0.04 Amp	0.96				
	DC Input (MAX)		+12 VDC	0.80 Amp	9.6				
			+24 VDC	0.80 Amp	19.2				
Supervised inputs (AC, Batt, REX, Door Mon) (MAX)			0-5 VDC Reference	0.005 Amp (Sink)	0.025				
Output	Strike *** / AUX NC or NO DC Output (MAX)	AUX 12 VDC Input @ Controller	Unregulated (Wet) Jumpers	+10 to +12 VDC	0.70 Amp*				8.40
		AUX 24VDC Input @ Controller	Unregulated (Wet) Jumpers Regulated (Wet) Jumpers – 12 VDC	+23 to +24 VDC +10 to +12 VDC	0.70 Amp* 0.70 Amp*				16.80 8.40
	PoE Input @ Controller	Unregulated (Wet) Jumpers	+16.5 to 24 VDC	0.30 Amp*	7.2				
		Regulated (Wet) Jumpers – 12 VDC	+10 to +12 VDC	0.50 Amp*	6.0				
	AUX 12-24 VDC / PoE Input @ Controller	Jumpers Set to Dry	+12 to 24 VDC External	2.00 Amp**	24.00				

### Reader Module

CONDITIONS			VOLTAGE DC (VDC)	CURRENT (Amp)	POWER (W)	OPERATING TEMPERATURE	CABLE LENGTH	UL REF NUMBER
Input	DC Input (NSC)		+12 VDC	0.03 Amp	0.36	32° - 122°F (0° - 50° C)	Wiegand = 500 ft (152.4 m) - 22 AWG • 0.65mm • 0.33mm <sup>2</sup>	MEWMAxNN x = K for Black G for Grey
			+24 VDC		0.72			
	DC Input (MAX)		+12 VDC	0.70 Amp	8.4			
			+24 VDC	16.8				
Data 1/CLK , Data 0/Data (MAX)			0-5 VDC Reference	N/A	N/A			
Output	Reader PWR Output VDC (MAX)	AUX 12 VDC @ Controller	+9.8 to +12.25 VDC	0.30 Amp*	3.67			
		AUX 24 VDC @ Controller		0.60 Amp*	7.35			
		PoE Input @ Controller		0.50 Amp*	6.12			
	GRN LED, RED LED, Beep and Hold (MAX)		0-5 VDC Reference	0.005 Amp (sink)	0.025			
	External Tamper - (MAX)		+5 VDC (NOM)	0.017Amp	0.085			

NSC = Normal Standby Condition

\* Combined output rating not to exceed V\*I = W

1.2 Amp (+24VDC AUX Input, 28.8 W)

1.2 Amp (+12VDC AUX Input, 12.96 W)

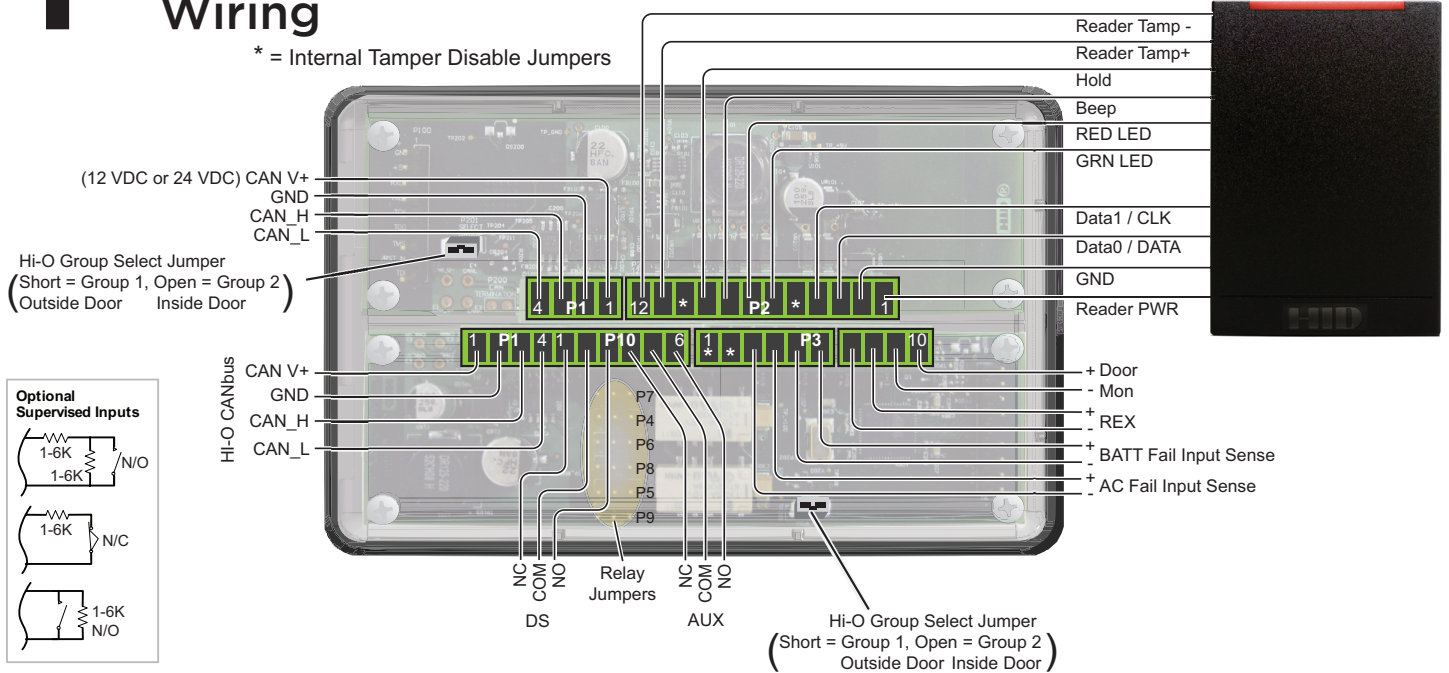
\*\* Each Relay

\*\*\* Shared between relays

# 1

## Wiring

\* = Internal Tamper Disable Jumpers



**CAUTION:** Some magnetic locks exhibit both high inrush current when activated and a high instantaneous break voltage when de-energized due to magnetic field collapse. It is recommended you use of a snubber circuit across the controlling relay terminals to protect the controlling relay contacts. Go to [support.hidglobal.com](http://support.hidglobal.com), see Solution 891 - How do I wire a High In-Rush Current locking device to VertX/EDGE EVO. Not evaluated by UL.

**Notes:**  
 Connect the Door Monitor to avoid a Door Forced Alarm.  
 Use Ground (GND) for the drain or tie the drain to the reader ground if the reader is not powered off of the module (5 VDC reader).

### 1.1 Internal Optical Tamper Disable Jumpers

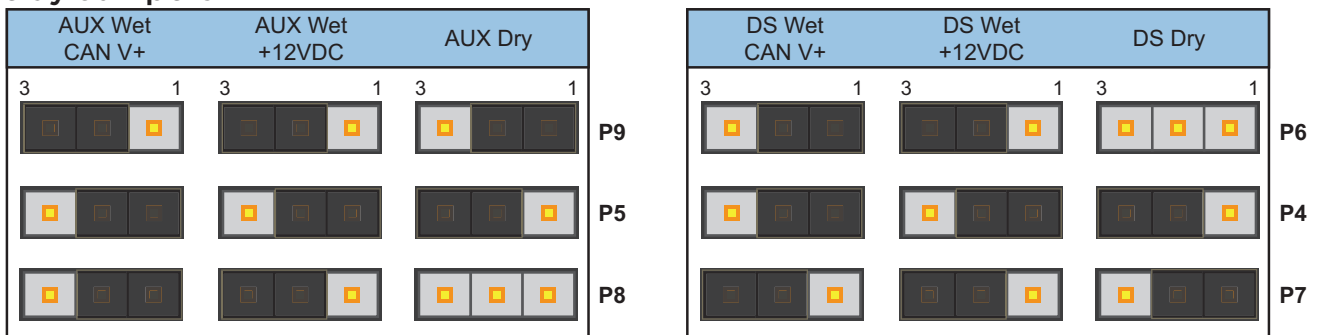
To disable the internal optical tamper sensor for the right side PCB (Door interface board), attach a jumper wire from P3 pin 1 to P3 pin 2.

To disable the internal optical tamper sensor for the left side PCB (Reader interface board), attach a jumper wire from P2 pin 10 to P2 pin 5.

**CAUTION:** The unit ships from the factory with the Door interface board jumper pre-installed on the connector. Removing this jumper causes false tampers to trigger.

**Note:** If desiring an external tamper, wire an unsupervised Normally Closed contact, replacing the pre-installed jumper.

### 1.2 Relay Jumpers



### 1.3 Tamper (Reader Interface Board)

The Reader Tamper + and - are implemented allowing a connection for an open collector external tamper from a reader, such as iCLASS.

**Note:** Connect P2, Pin 2 (GND) from the Reader Interface Board to the same ground as the reader power, if the reader is not powered by the 12 VDC output of the module.

### 1.4 Door Interface Board Groups 1 and 2

#### 1.4.1 Group 1

Following are the inputs when the unit is configured for Group 1.

Input	Port	Pin
AC -	P3	Pin3
AC +	P3	Pin 4
BATT -	P3	Pin 5
BATT +	P3	Pin 6
REX -	P3	Pin 7
REX +	P3	Pin 8
Door Mon -	P3	Pin 9
Door Mon +	P3	Pin 10

#### 1.4.2 Group 2

Following are the inputs when the unit is configured for Group 2.

Input	Port	Pin
Input 4 -	P3	Pin3
Input 4 +	P3	Pin 4
Input 3 -	P3	Pin 5
Input 3 +	P3	Pin 6
Input 2 -	P3	Pin 7
Input 2 +	P3	Pin 8
Input 1 -	P3	Pin 9
Input 1 +	P3	Pin 10

# Regulatory

UL

Connect only to a Listed Access Control / Burglary power-limited power supply, or Listed Access Control / Burglary PoE (Power-over-Ethernet) adapter.

All National and local Electrical codes apply. Install in accordance with NFPA70 (NEC), Local Codes, and authorities having jurisdiction.

Indoor use only.

EDGE EVO Modules are UL Listed for installation within a protected area.

Mount onto UL Listed Single-Gang electrical box.

EDGE EVO Standard Networked Controller and EDGE EVO Modules are UL Listed for installation within the protected area.

All panic and alarm hardware and equipment shall be UL Listed.

All cabling and wire shall be UL Listed or Recognized and suitable for the application.

All splices and connections shall be mechanically secure and bonded electrically.

For operation, testing and maintenance, refer to the Hi-O Network Controller & Reader (82000-922) and Hi-O Networked Controller Installation Guides (82000-920).

**CAUTION: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.**

## FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Canada Radio Certification

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## CE MARKING

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The controller portion is in compliance with the essential requirements and other relevant provision of Directive 2004/108/EC.

## JAPAN MIC

この装置は認証済みです。

## TAIWAN NCC

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

According to «Administrative Regulations on Low Power Radio Waves Radiated Devices» without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act.

The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.



**ACCESS** experience.

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Patent Pending

Check reader label for current regulatory approvals.

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