

HSM3408 Expansion Module Installation Guide

HSM3408 Expansion Module

Zone expander

HSM3408 is an 8-zone expansion module intended to provide hardwired zone expansion to the Powerseries Pro. This I/O module is intended to connect to the panel using the Corbus interface. Inputs on this module are capable of NEOL, SEOL, DEOL and TEOL configurations, with customizable resistance thresholds and loop response times.

Specifications

- Temperature range: -10°C to + 55°C (0°C to 49°C for UL/ULC listed systems)
- Relative Humidity: 5% to 93% RH non-condensing
- Input rating: 10.8 - 12.5 VDC / 550 mA (provided by the alarm controller or separate power supply)
- ① **Note:** Maximum input loading is shared with compatible alarm panel or power supply AUX output
- Board current draw: 50 mA (set and unset state / alarm and non-alarm state)
- Board dimensions: 83 mm x 145 mm (3.25 in x 5.7 in)
- AUX output ratings: 10.8-12.5 VDC, -15% / + 10% when input voltage is between 85% to 110% of rated value and output current is between 0 mA - 200 mA max
- Corbus Wire Distance: 305 m (1,000 ft) Max; depending on current usage, see Max Wire Distance Chart below
- The hardware is ROHS compliant.
- This equipment must be installed by skilled service persons in non-hazardous, indoor locations.

Table 1: Max Corbus wire distance chart

		Aux output current	
		100 mA	200 mA
Wire gauge	18 AWG	305 m (1000 ft)	305 m (1000 ft)
	20 AWG	305 m (1000 ft)	240 m (800 ft)
	22 AWG	305 m (1000 ft)	150 m (500 ft)

Installation requirements

Before you install the HSM3408, adhere to the following requirements:

- For HSM3408 software versions 1.02 or later, you must install a 1.2 kΩ bypass resistor between the CORBUS RED and AUX+ terminal blocks. The resistor keeps a short circuit on the HSM3408 AUX+ output and stops the output from impacting other devices that are connected to the Corbus terminals in the control panel or Corbus repeater.
- ① **Note:** The resistor is preinstalled at the factory. Ensure that the resistor remains connected during the final installation stage of the HSM3408 module.
- To ensure that the module functions correctly, run the Corbus cable with a minimum length of 15 meters (49 ft) from the panel or Corbus repeater to the HSM3408 module.

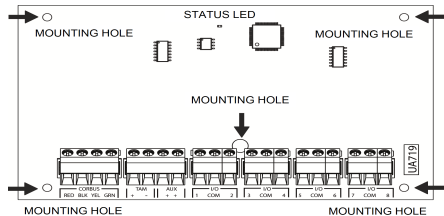
Terminal Descriptions

TAM- Used to tamper the cabinet in which the HSM3408 is mounted. Connect a normally closed (NC) switch across +TAM and -TAM. If the tamper is not being used connect a piece of wire across +TAM and -TAM to remove the trouble condition.

- ① **Note:** Tamper protect is required for UL/ULC commercial/residential burglary installations.

AUX+ - There are two terminals for AUX+ power to provide easier wiring. These terminals are used to provide power for devices. Maximum current draw must not exceed 200 mA. Connect the positive lead of powered devices to either AUX+ and the negative to any COM terminal.

CORBUS - The 4-wire Corbus connection is used by the panel to communicate with the module. The Corbus interfaces uses a RS485 bus. The RS485 chip supports baud rates up to 115200 baud. Connect the RED, BLK, YEL and GRN terminals to the Corbus terminals on the HS3032/HS3128/HS3248 main control.



01 to 08 -Zone input terminals 1 to 8. Wire the zones according to the description found in the Installation Manual for the control panel.

Compatibility	
Panel Compatibility	HS3032, HS3128, HS3248
Enclosure Compatibility	HSC3010C, HSC3010CR, HSC3030CAR, HSC3020C, HSC3001C, HSC3001CP
Connectivity Compatibility	Corbus

Enclosures

The HSM3408 can be installed within the same metallic cabinet as the alarm controller/power supply or in a separate enclosure. Internal and/or external wiring for this module shall be routed, supported, clamped or secured in a manner that reduces the likelihood of: excessive strain on wire and on terminal connections, loosening of terminal connections, and damage of conductor insulation.

The HSM3408 can be installed in the enclosures listed below. Tamper protection switches can be installed on all enclosures, including door opening protection and/or removal from the mounting position. Doors can be secured using screws or keylock.

- Model HSC3010C (hinged door) made of 18 Ga steel, painted white, dimensions 372 mm x 412 mm x 114 mm, weight: 9.75 lb or 4.2 kg
- Model HSC3010CR (hinged door) made of 18 Ga steel, painted red, dimensions 372 mm x 412 mm x 114 mm, weight: 10.0 lb or 4.5 kg
- Model HSC3030CAR (hinged door) made of 18 Ga steel (base) and 16 Ga (door), painted white, dimensions 375 mm x 412 mm x114 mm, weight 11.45 lb or 5.2 kg
- Model HSC3020C (removable door) made of 18 Ga steel, painted white, dimensions 459 mm x 414 mm x 103 mm, weight: 11.5 lb or 4.3 kg
- Model HSC3001C (hinged door) made of 22Ga steel, dimension 260mm x 237 mm x 69 mm, weight 1.2kg
- Model HSC3001CP (removable cover) made of ABS, color white, dimensions 254 mm x 177.8 mm x 62 mm, weight: 350g
- Model HSC3020CP (removable door) made of PC-ABS, color white, dimensions 368 mm x 489 mm x 108 mm, weight: 4.7 lb or 2.1 kg
- ① **Note:** For mounting locations of the zone expander board in the compatible cabinets please refer to the HS3248/HS3128/HS3032 Reference Manual.

Automatically enrolling on the alarm panel

To enroll the HSM3408, complete the following steps:

1. Ensure that the system is not powered.
2. Connect the HSM3408 to the Corbus.
3. Power up the system.
4. Enter section [902] [000] to initiate auto enroll.
5. Enter section [903] [000] to confirm the module enrollment and slot number.

Manually enrolling on the alarm panel

To enroll the HSM3408, complete the following steps:

1. Ensure that the system is not powered.
2. Connect the HSM3408 to the Corbus.
3. Power up the system.
4. Enter section [902] [001].
5. Enter the module serial number.
6. Enter section [903] [000] to confirm the module enrollment and slot number.

- ① **Note:** HSM3408 is compatible with the following panels: HS3032, HS3128, HS3248.

Status LED

The HSM3408 is equipped with a status LED to indicate the current condition of the module. If the HSM3408 is operating correctly, the status LED flashes briefly every 10 seconds. When a trouble condition is present, the status LED displays a series of flashes then remains blank for 1.5 seconds. The number of flashes indicates the trouble condition as outlined below.

Number of Flashes	Trouble Condition
1	Module not enrolled
2	Alarm Panel supervision trouble
3	CORBUS low voltage
6	AUX Trouble

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- ⚠ **WARNING:** Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

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FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by DSC could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Re-orient the receiving antenna

Relocate the alarm control with respect to the receiver

Move the alarm control away from the receiver

Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.

Industry Canada

CAN ICES-3(B)/NMB-3(B)

EN CERTIFICATION

The Model HSM3408 Output Module has been certified by Telefication according to EN50131-1:2006 + A1:2009 + A2:2017 and EN50131-3:2009 Type A for Grade 3, Class II when installed in the HSC3020C or HSC3020CP enclosure.

Module d'extension HSM3408

Module d'extension huit zones

HSM3408 est un module d'extension huit zones conçu pour offrir une extension de la zone câblée d'une centrale Powerseries Pro. Ce module d'E/S est conçu pour se connecter à la centrale via l'interface Corbus. Les entrées de ce module sont compatibles avec les configurations NEDL, SEDL, DEDL et TEDL.

Caractéristiques

- Plage de température : -10 °C à +55 °C (0 °C à 49 °C pour les systèmes homologués UL/ULC).
- Taux d'humidité relative : de 5 % à 93 % sans condensation
- Tension d'entrée : 10,8 - 12,5 V CC / 550 mA (fournie par le contrôleur d'alarme ou l'alimentation électrique distincte).



