

HSM3408 V1.0 Expansion Module

8 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)
- **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 - 500 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.

		Aux Output Current				
		100 mA	200 mA	300 mA	400 mA	500 mA
Wire Gauge	18 AWG	305 m (1000 ft)	305 m (1000 ft)	240 m (800 ft)	180 m (600 ft)	150 m (500 ft)
	20 AWG	305 m (1000 ft)	240 m (800 ft)	150 m (500 ft)	120 m (400 ft)	90 m (300 ft)
	22 AWG	305 m (1000 ft)	150 m (500 ft)	90 m (300 ft)	75 m (250 ft)	60 m (200 ft)

Max Corbus Wire Distance Chart

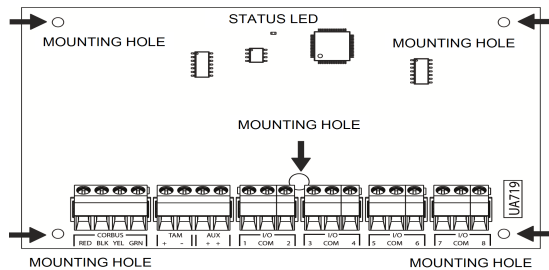
Terminal Descriptions

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.

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 500 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 use 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 HS2032 or HS2128 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
Enclosure Compatibility	HSC3010C, HSC3010CR, HSC3030CAR, HSC3020C
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 x 114 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 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

Note: For mounting locations of the zone expander board in the compatible cabinets please refer to the 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.

Note: HSM3408 is compatible with the following panels: HS3032, HS3128.

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

Limited Warranty

Digital Security Controls (DSC) warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any warranty DSC shall, at its option, repair or replace the defective equipment upon return of the equipment to its factory. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of DSC such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of DSC. This warranty contains the entire warranty. Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. In no event shall DSC be liable for any direct or indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

Warning: Digital Security Controls recommends that the anti-tamper 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.

IMPORTANT - READ CAREFULLY: DSC Software purchased with or without Product and Components is copyright and is purchased under the following license terms: This End User License Agreement ("EULA") is a legal agreement between You (the company, individual or entity who acquires the Software and related Hardware) and Digital Security Controls, a division of Tyco Safety Products Canada Ltd. ("DSC"), the manufacturer of the integrated security systems and the developer of the software and any related products or components ("SOFTWARE") which You acquired. If the DSC software product ("SOFTWARE PRODUCT" or "SOFTWARE") is intended to be accompanied by HARDWARE, and is NOT accompanied by new HARDWARE, You may not use, copy or install the SOFTWARE PRODUCT includes computer software, and may include associated media, printed materials, and "online" or electronic documentation. Any software provided along with the SOFTWARE PRODUCT that is associated with a separate end-user license agreement is licensed to You under the terms of that license agreement.

By installing, copying, downloading, storing, accessing or otherwise using the SOFTWARE PRODUCT, You agree unconditionally to be bound by the terms of this EULA, even if this EULA is deemed to be a modification of any previous arrangement or contract. If You do not agree to the terms of this EULA, DSC is unwilling to license the SOFTWARE PRODUCT to You, and You have no right to use it.

SOFTWARE PRODUCT LICENSE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

1. GRANT OF LICENSE This EULA grants You the following rights:

- a) Software Installation and Use - For each license You acquire, You may have only one copy of the SOFTWARE PRODUCT installed.
- b) Storage/Network Use - The SOFTWARE PRODUCT may not be installed, accessed, displayed, run, shared or used concurrently on more than different computers, including a workstation, terminal or other digital electronic device ("Device"), in other words, if You have several workstations, You will have to acquire a license for each workstation where the SOFTWARE will be used.
- c) Backup Copy - You may make back-up copies of the SOFTWARE PRODUCT, but You may only have one copy per license installed at any given time. You may use the back-up copy solely for archival purposes. Except as expressly provided in this EULA, You may not otherwise make copies of the SOFTWARE PRODUCT, including the printed materials accompanying the SOFTWARE.
- d) DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS:
 - a) Limitations on Reverse Engineering, Decompilation and Disassembly - You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation. You may not make any changes or modifications to the Software, without the prior permission of an officer of DSC. You may not remove any proprietary notices, marks or labels from the Software Product. You shall institute a reasonable measures to ensure compliance with the terms and conditions of this EULA.
 - b) Separation of Components - The SOFTWARE PRODUCT is licensed as a single product. Its component parts may not be separated for use on more than one HARDWARE unit.
 - c) Single INTEGRATED PRODUCT - If You acquired this SOFTWARE WITH HARDWARE, then the SOFTWARE PRODUCT is licensed with the HARDWARE as a single integrated product. In this case, the SOFTWARE PRODUCT may only be used with the HARDWARE as set forth in this EULA.
 - d) Rental - You may not rent, lease or lend the SOFTWARE PRODUCT. You may not make it available to others or post it on a server or web site.
 - e) Software Product Transfer - You may transfer all of Your rights under this EULA only as part of a permanent sale or transfer of the HARDWARE, provided You retain no copies. You transfer all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades and this EULA), and provided the recipient agrees to the terms of this EULA. If the SOFTWARE PRODUCT is an upgrade, any transfer must also include all prior versions of the SOFTWARE PRODUCT.
 - f) Termination - Without prejudice to any other rights, DSC may terminate this EULA if You fail to comply with the terms and conditions of this EULA. In such event, You must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.
 - g) Trademarks - This EULA does not grant You any rights in connection with any trademarks or service marks of DSC or its suppliers.

3. COPYRIGHT - All title and intellectual property rights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, and text incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT, are owned by DSC or its suppliers. You may not copy, reproduce, distribute, or otherwise use the SOFTWARE PRODUCT. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE PRODUCT are the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants You no rights to use such content. All rights not expressly granted under this EULA are reserved by DSC and its suppliers.

4. EXPORT RESTRICTIONS - You agree that You will not export or re-export the SOFTWARE PRODUCT to any country, person, or entity subject to Canadian export restrictions.

5. CHOICE OF LAW - This Software License Agreement is governed by the laws of the Province of Ontario, Canada.

6. ARBITRATION - All disputes arising in connection with this Agreement shall be determined by final and binding arbitration in accordance with the Arbitration Act, and the parties agree to be bound by the arbitrator's decision. The place of arbitration shall be Toronto, Canada, and the language of the arbitration shall be English.

7. LIMITED WARRANTY

(a) NO WARRANTY - DSC PROVIDES THE SOFTWARE "AS IS" WITHOUT WARRANTY. DSC DOES NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS OR THAT OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE.

(b) CHANGES IN OPERATING ENVIRONMENT - DSC shall not be responsible for problems caused by changes in the operating characteristics of the HARDWARE, or for problems in the interaction of the SOFTWARE PRODUCT with non-DSC SOFTWARE or HARDWARE PRODUCTS.

(c) LIMITATION OF LIABILITY. WARRANTY REFLECTS ALLOCATION OF RISK - IN ANY EVENT, IF ANY STATUTE IMPLIES WARRANTIES OR CONDITIONS NOT STATED IN THIS LICENSE AGREEMENT, DSC'S ENTIRE LIABILITY UNDER ANY PROVISION OF THIS LICENSE AGREEMENT SHALL BE LIMITED TO THE GREATER OF THE AMOUNT ACTUALLY PAID BY YOU TO LICENSE THE SOFTWARE PRODUCT AND FIVE CANADIAN DOLLARS (CAD\$5.00), BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

(d) DISCLAIMER OF WARRANTIES - THIS WARRANTY CONTAINS THE ENTIRE WARRANTY AND SHALL BE IN LIEU OF ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED (INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF DSC. DSC MAKES NO OTHER WARRANTIES. DSC NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON PURPORTING TO ACT ON ITS BEHALF TO MODIFY OR TO CHANGE THIS WARRANTY, NOR TO ASSUME FOR IT ANY OTHER WARRANTY OR LIABILITY CONCERNING THIS SOFTWARE PRODUCT.

(e) EXCLUSIVE REMEDY AND LIMITATION OF WARRANTY - UNDER NO CIRCUMSTANCES SHALL DSC BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY. SUCH DAMAGES INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF PROFITS, LOSS OF THE SOFTWARE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE, REPLACEMENT EQUIPMENT, FACILITIES OVERSEEN, DOWNTIME, PURCHASERS TIME, THE CLAIMS OF THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY. WARNING: DSC recommends that the anti-tamper 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 SOFTWARE PRODUCT to fail to perform as expected.

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 devices 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 a 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 I CES-3(B) NMB-3(B)

EN CERTIFICATION

The Model HSM3408 Output Modules have been certified by Telefield according to EN50131-1:2006+ A1:2009+ A2:2017 and EN50131-3:2009 Type A for Grade 3, Class I1 when installed in the HSC3020C or HSC3020CP enclosure.

Module d'extension HSM3408 V1.0

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.

