Issue 1

VIP-848AR-IC
InformaCast® Compliant
IP Network Input / Output Module

INTRODUCTION

The VIP-848AR-IC InformaCast® Compliant IP Network Input / Output Module provides eight (8) Contact Closure Inputs and eight (8) Relay Outputs which work with the InformaCast M2M plugin. The relay outputs are controlled by sending SNMP commands to close or open the relay. The contact closures will generate SNMP Trap messages when closed or opened. VIP-848AR-IC is designed for rack mounting (1U).

SPECIFICATIONS

Features

- 8 Relay Outputs
- 8 Contact Closure Inputs
- RJ-45 For Network Connection
- Front Panel Activity LED
- Removable Terminal Block Connectors provided for Input and Relay connections
- 2.5mm Jack for DC Power (optional)
- Power Over Ethernet (PoE) 802.3af compatible

Dimensions/Weight

- 1.75" H x 16.50" W x 9.50" D (4.5 cm H x 41.9 cm W x 24.1 cm D)
- Weight: 7.80 lbs. (3.54 kg)

Nominal Specifications

- Relay Current: 1 AMP @ 24VDC

Nominal Power Requirements

Via Back Panel Barrel Connector:

Voltage:	24VDC
Current:	325mA

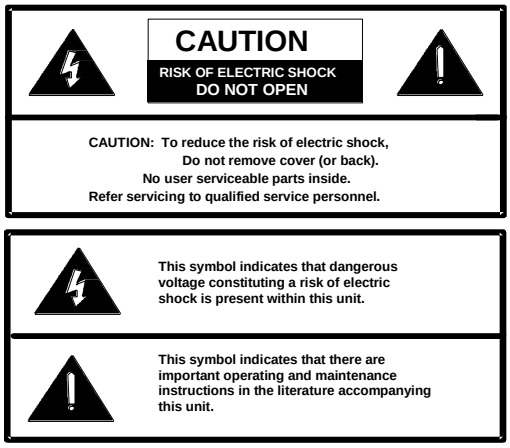
Via 802.3af PoE Ethernet Switch:

802.3af:	Class 3

Environment

Temperature:	+32 to +104°F (0 to +40°C)
Humidity:	0 to 85% Non-Precipitating

These products are intended for use with a UL Listed power source marked "Class 2" or "LPS" rated 24VDC, or 48VDC (PoE).
PoE and all interconnected ITE are intended for intra-building.



Precautionary Designations

- **WARNING: To Reduce The Risk Of Fire Or Electric Shock. Do Not Expose This Apparatus To Rain Or Moisture.**
- **AVERTISSEMENT: Afin de réduire les risques d'incendie ou de décharge électrique, évitez d'exposer le système à la pluie ou à l'humidité.**
- **Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.**
- **L'appareil ne doit pas être exposé à des égouttements et éclaboussures et aucun Objet Rempli de liquide, comme vase, ne doit être placé sur l'appareil.**

IMPORTANT SAFETY INFORMATION

CONSIGNES DE SÉCURITÉ IMPORTANTES

1. *Read these instructions.*
   Lisez ces instructions.
2. *Keep these instructions.*
   Conservez ces instructions.
3. *Heed all warnings.*
   Respectez tous les avertissements.
4. *Follow all instructions.*
   Suivez toutes les instructions.
5. *Do not use this apparatus near water.*
   Ne pas utiliser cet appareil près de l'eau.
6. *Clean only with dry cloth.*
   Nettoyer avec un chiffon sec.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
   Ne pas bloquer les ouvertures de ventilation. Installer formément aux instructions du fabricant.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
   Ne pas installer à proximité de sources de chaleur telles que radiateurs, registres de chaleur, poêles ou autres appareils (y compris les amplificateurs) produisant de la chaleur.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet consult an electrician for replacement of the obsolete outlet.
   Ne pas contourner le dispositif de sécurité de la fiche polarisée ou de mise à la terre. Une fiche polarisée possède deux lames dont une plus large que l'autre. Une fiche de terre a deux lames et une troisième broche de mise à la terre. La lame large et la troisième broche sont fournies pour votre sécurité. Si la fiche fournie ne rentre pas dans votre prise, veuillez consulter un électricien pour le remplacement de la prise obsolète.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
    N'utilisez que des fixations / accessoires spécifiés par le fabricant.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
    Utilisez uniquement avec le chariot, stand, trépied, support ou table spécifié par le fabricant ou vendu avec l'appareil. Quand un chariot est utilisé, Soyez prudent lorsque vous déplacez l'ensemble chariot / appareil pour éviter des blessures dues au renversement.
13. Unplug this apparatus during lightning storms or when unused for a long period of time.
    Débranchez cet appareil pendant les orages ou lorsqu'il n'est pas utilisé pendant une longue période de temps.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way. Such as when the power supply cord or plug is damaged, liquid has been spilled, objects have fallen into the apparatus or the apparatus has been exposed to rain or moisture and does not operate normally or has been dropped.
    Confiez toute réparation à un personnel qualifié. Une réparation est nécessaire lorsque l'appareil a été endommagé de quelque façon. Par exemple lorsque le cordon d'alimentation ou la fiche est endommagé, du liquide a été renversé, si des objets sont tombés dans l'appareil ou le appareil a été exposé à la pluie ou à l'humidité et ne fonctionne pas normalement ou s'il est tombé.

FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his own expense.

General Mounting Information

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
F) Equipment only suitable for mounting at heights less than or equal to 2m (6.56').

INSTALLATION

Mounting

Rack: Secure mounting brackets with screws provided to the VIP-848AR-IC. See Figure 1. Place the VIP-848AR-IC into a standard 19" rack and secure to rack with proper hardware (not included).

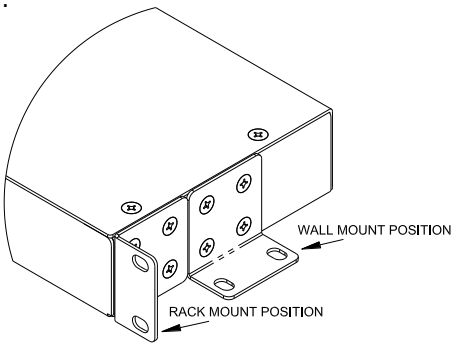


Figure 1.

Power Connections

The preferred method of powering a VIP-848AR-IC is via a Power over Ethernet (PoE) switch meeting the 802.3af specification.

If the rear panel barrel connector is used for power, the preferred power supply is a Valcom VIP-324D. Make all required signal connections before applying power to the unit. If powering via Power over Ethernet (PoE), make sure all signal connections via the rear panel are made then connect the VIP-848AR-IC to the Ethernet switch. If power is provided via the barrel connector, make sure all signal connections are secure. Attach the unit to the network via the front panel RJ-45 Ethernet connector. Apply power by plugging the power supply in to the VIP-848AR-IC via the barrel connector on the rear of the VIP-848AR-IC.

Network Connection

The VIP-848AR-IC has one RJ-45 network connector on the front panel.

Use a standard Ethernet patch cable to connect the VIP-848AR-IC to an Ethernet switch. If the Ethernet switch is 802.3af compliant the VIP-848AR-IC will draw power from it.

Signal Connections

The VIP-848AR-IC has 16 connections on the rear panel:

- 8 Contact Closure Inputs
- 8 Relay Outputs

The terminal blocks are removable for easy access. Use a small screwdriver to push the orange release button into the terminal block to insert/remove the wire.

Status Indicator Lights

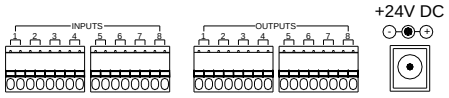
The VIP-848AR-IC has 3 status indication lights on the front panel:

STATUS: Illuminates at regular intervals during normal operation. On steady indicates unit is in reset mode.

LINK: Illuminated indicates 100 Mbit Ethernet connection. Not illuminated indicates 10 Mbit connection.

ACT: Indicator flashes to indicate network activity.

Front View



Rear View

Setup

Information specific to your application will need to be programmed into the VIP-848AR-IC using a computer with the free Valcom VIP-102B IP Solutions Setup Tool. Download the latest version of the Tool from the Valcom web site at www.valcom.com/vipsetuptool. Refer to the VIP-102B Reference Manual for details on programming the IP address, contacts and relays. The default IP address is 192.168.6.200. Refer to the list of OID values controlling Contact Closure Inputs and Relay Outputs at the end of this document.

The InformaCast server IP address (es) will be entered on the InformaCast tab in the programming tool. Up to12 servers may be entered.

Information specific to your application will need to be programmed into the InformaCast server using the M2M (Machine to Machine) plugin. Refer to the InformaCast documentation for further information.

TECHNICAL ASSISTANCE

When trouble is reported, verify power is being supplied to the unit and there are no broken connections. If a spare unit is available, substitute a spare unit for the suspected defective unit.

Assistance in troubleshooting is available from the factory. Call (540) 563-2000 and ask for Valcom Technical Support or visit our website at www.valcom.com.

Valcom equipment is not field repairable. Valcom, Inc. maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating your company name, address, phone number, contact person and the nature of the problem. Send the unit to:

Valcom, Inc.
Repair & Return Dept.
5614 Hollins Road
Roanoke, Va. 24019-5056

WARRANTY

Warranty information may be found on our website at www.valcom.com/warranty.

GPIO Inputs (Contact Closures) Table

GPIO Input Port (Contact Closure)	SNMP TRAP OID Sent	Closed (On)	Open (Off)
Port 1	1.3.6.1.4.1.32546.1.1.3.0.1	1	0
Port 2	1.3.6.1.4.1.32546.1.1.3.0.2	1	0
Port 3	1.3.6.1.4.1.32546.1.1.3.0.3	1	0
Port 4	1.3.6.1.4.1.32546.1.1.3.0.4	1	0
Port 5	1.3.6.1.4.1.32546.1.1.3.0.5	1	0
Port 6	1.3.6.1.4.1.32546.1.1.3.0.6	1	0
Port 7	1.3.6.1.4.1.32546.1.1.3.0.7	1	0
Port 8	1.3.6.1.4.1.32546.1.1.3.0.8	1	0

GPIO Outputs (Relays) Table

GPIO Output Port (Relay)	SNMP SET OID Received	Value Type	Closed (On)	Open (Off)
Port 1	1.3.6.1.4.1.32546.1.1.2.1.1.2.1	Integer	1	0
Port 2	1.3.6.1.4.1.32546.1.1.2.1.1.2.2	Integer	1	0
Port 3	1.3.6.1.4.1.32546.1.1.2.1.1.2.3	Integer	1	0
Port 4	1.3.6.1.4.1.32546.1.1.2.1.1.2.4	Integer	1	0
Port 5	1.3.6.1.4.1.32546.1.1.2.1.1.2.5	Integer	1	0
Port 6	1.3.6.1.4.1.32546.1.1.2.1.1.2.6	Integer	1	0
Port 7	1.3.6.1.4.1.32546.1.1.2.1.1.2.7	Integer	1	0
Port 8	1.3.6.1.4.1.32546.1.1.2.1.1.2.8	Integer	1	0