# B&B electronics
## MANUFACTURING COMPANY

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# 10/100 ETHERNET OPTION CARD FOR *VLINX ConnectPro*



- *CONFIGURED USING Vlinx ConnectPro MANAGER 2.0*
- *10 BASE-T/100 BASE-TX ETHERNET PORT*
- *EASY INSTALLATION*

### NOTICE

*This product does not have a UL rating. Installing Non-UL Rated parts or components into any UL Rated device voids the original UL rating on that device.*

## GENERAL DESCRIPTION

The Vlinx ConnectPro contains a proprietary expansion port which provides a high speed, parallel architecture that extends the functionality and flexibility of the platform. This approach allows these products to evolve concurrently with the latest advances in communications and standards, without sacrificing performance. This high bandwidth channel has significantly greater throughput when compared to the traditional (external) serial gateway approach.

The auxiliary Ethernet port provides a means to isolate machine-network traffic from the plant-wide network, thereby negating the need for an industrial router. Further, by isolating the machine and plant-wide networks, the system only requires that a single IP address be provided by the company's IT group.

The VFG9000-ENET option card is easily installed by removing the blank expansion port cover of your Vlinx ConnectPro, and plugging the VFG9000-ENET card into the expansion port. Installing this card adds an auxiliary 10/100 Ethernet port to any Vlinx ConnectPro. Configuration is simple using B&B Electronics' free Vlinx ConnectPro Manager 2.0 software.

## SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in the literature or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Do not use the controller to directly command motors, valves, or other actuators not equipped with safeguards. To do so can be potentially harmful to persons or equipment in the event of a fault to the controller.

| ⚠ | **CAUTION: Risk of Danger.**<br>Read complete instructions prior to installation and operation of the unit. |
|---|---|

## SPECIFICATIONS

1. **POWER REQUIREMENTS:** 24 V @ 30 mA max. Power is supplied to the option card by the Vlinx ConnectPro.
2. **COMMUNICATIONS:**
   **Ethernet Port**: 10 BASE-T / 100 BASE-TX
   RJ45 jack is wired as a NIC (Network Interface Card).
3. **CERTIFICATIONS AND COMPLIANCES:**
   Consult factory for details.
   **ELECTROMAGNETIC COMPATIBILITY**
   Emissions and Immunity to EN 61326: Electrical Equipment for Measurement, Control and Laboratory use.
   Reference Vlinx ConnectPro unit for EMC specifications
4. **ENVIRONMENTAL CONDITIONS:**
   Refer to the specifications of the Vlinx ConnectPro you are installing this card in.
5. **CONSTRUCTION:** For indoor use only. Installation Category II, Pollution Degree 2.
6. **INSTALLATION REQUIREMENTS:** See "Installing the VFG9000-ENET Option card" for more details.
7. **WEIGHT**: 2.0 oz (56.7 g)

## ORDERING INFORMATION

| DESCRIPTION | PART NUMBER |
|---|---|
| Ethernet option card for Vlinx ConnectPro | VFG9000-ENET00 |

## CONTENTS OF PACKAGE
- VFG9000-ENET option card
- This hardware bulletin

LP0866
Effective 03/11

# INSTALLING THE VFG9000-ENET OPTION CARD

**Caution:** The expansion and main circuit boards contain static sensitive components. Before handling the cards, discharge static charges from your body by touching a grounded bare metal object. Ideally, handle the cards at a static controlled clean workstation. Also, handle the cards by the edges only. Dirt, oil, or other contaminants that may contact the cards can adversely affect circuit operation.

**Warning: Risk of Danger:** Be sure to remove all power before removing the expansion port cover

1. Remove power from the unit
2. Insert a flat-bladed screwdriver into the slot at the top of the expansion port cover. Gently apply pressure on the screwdriver in an upward direction until the expansion port cover disengages from the unit as shown in Figure 1.
3. Verify that the option card knobs are in the "unlocked" position as shown in Figure 2.
4. Carefully insert the option card into the expansion port opening while aligning the card-edge connector on the option card with the main board's header, as shown in Figure 3. Once aligned, gently press on the front of the card until it is flush with the front of the case.
5. Turn the option card knobs to the locked position as shown in Figure 4.
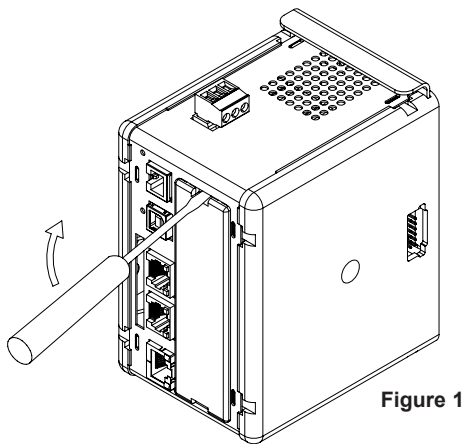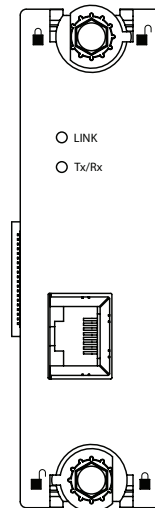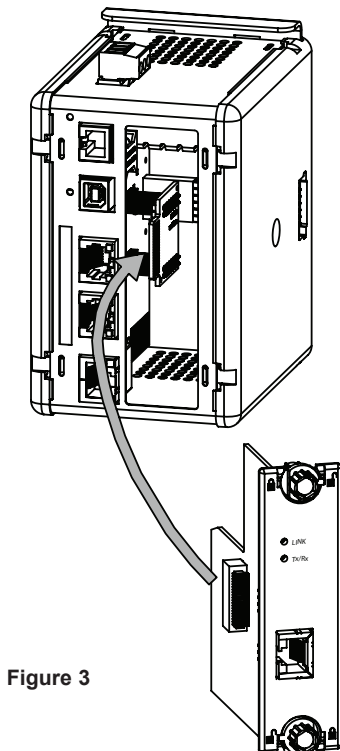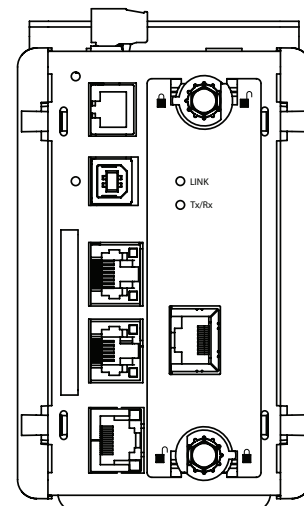
**Figure 1**

**Figure 2**

**Figure 3**

**Figure 4**

## THE OPTION CARD LABEL

Place the option card label on the outer plastic cover of the Vlinx ConnectPro. The label contains the MAC ID of the particular VFG9000-ENET option card being used.

## POWER SUPPLY REQUIREMENTS

### NEW AND EXISTING INSTALLATIONS

The VFG9000-ENET option card draws all of its power from the main board of the Vlinx ConnectPro. The specifications of the Vlinx ConnectPro account for the power needs of an option card.

## COMMUNICATING WITH THE VFG9000-ENET OPTION CARD

### CONFIGURING THE VFG9000-ENET OPTION CARD

The VFG9000-ENET is configured using Vlinx ConnectPro Manager 2.0 software. Updates to Vlinx ConnectPro Manager 2.0 for new features and drivers are posted on the website as they become available. By configuring the VFG9000-ENET using the latest version of Vlinx ConnectPro Manager 2.0, you are assured that your unit has the most up-to-date feature set. Additional information can be found in your hardware bulletin and also in the Vlinx ConnectPro Manager 2.0 user manual.

### ETHERNET COMMUNICATIONS

Ethernet communications can be established at either 10 BASE-T or 100 BASE-TX. The VFG9000-ENET option card's RJ45 jack is wired as a NIC (Network Interface Card). VFG9000-ENET option card auto-detects remote transmit and receive pairs and correctly assigns the transmit and receive pairs for the VFG9000-ENET option card. This exteremly useful feature enables the user to use whichever type of cable (cross-over or straight) is available.

## SOFTWARE/UNIT OPERATION

### LEDS

The Link and Tx/Rx LEDs, shown in Figure 2, indicate the status of the Ethernet port. Refer to the following chart.

| LED | COLOR | DESCRIPTION |
|---|---|---|
| LINK | GREEN | 10 BASE-T Communications |
| | AMBER | 100 BASE-TX Communications |
| Rx/Tx | YELLOW solid | Link established |
| | YELLOW flashing | Data being transferred |

### TROUBLESHOOTING YOUR VFG9000-ENET OPTION CARD

If for any reason you have trouble operating, connecting, or simply have questions concerning your new VFG9000-ENET option card, contact B&B Electronics' technical support. For contact information, refer to the back page of this bulletin for phone and fax numbers.

Web Site: http://www.bb-elec.com