

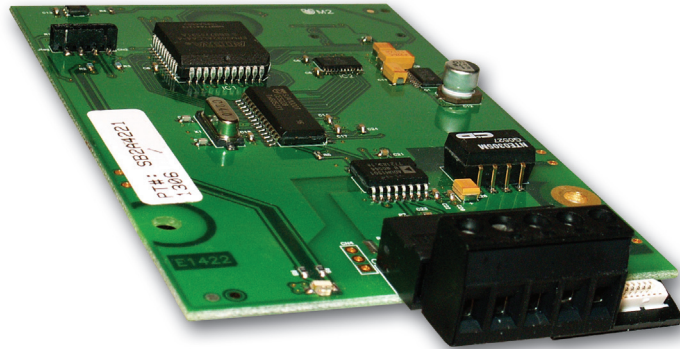
PGX-DNET

PenGUIn™ machine-HMI

MODEL

- Configured using GUIcon software
- Digitally isolated DeviceNet port capable of communicating with any DeviceNet master
- Powered and configured from PG operator interface terminal
- Installation and connection hardware included with card

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Eurotherm



DeviceNet® Option Card for PG Operator Interface Terminals Specification Sheet

General Description

The PG proprietary expansion slot provides a high speed, parallel architecture that extends the functionality and flexibility of the PG series HMI. This approach allows the PG series 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 PGX-DNET option card is easily installed by removing the rear cover of your PG operator interface, attaching the card using three screws and connecting a single cable. Adding this card gives the operator interface a DeviceNet slave communications port. It is built with digital isolation to protect the operator interface from the DeviceNet bus and vice versa. It provides the ability to communicate to any DeviceNet master. A connector housing is provided to function as a strain relief for the wires that terminate into the five position connector. The connector is pluggable for easy removal of the PG operator interface from the DeviceNet bus, without disturbing communications with other devices on the bus.

Contents of Package

- PGX-DNET Option Card with pluggable connector
- Cable already attached to PGX-DNET option card
- Hardware pack consisting of three screws and a connector housing for the pluggable connector

imagine communication without limitation

Specification

Power Requirements

Power is supplied to the option card from the main board of your PG operator interface.

Communications

DeviceNet port: The DeviceNet port has format and baud rates that are software programmable up to 500K baud and are digitally isolated. This port may be configured for various DeviceNet protocols.

Isolation from PGX-DNET Communication ports to PG operator interface: 1000 VDC for 1 minute.

Environmental Conditions

Operating Temperature Range: 0 to 50°C
 Storage Temperature Range: -20 to 80°C
 Operating & Storage Humidity: 80% maximum relative humidity (non-condensing) from 0 to 50°C
 Altitude: Up to 2000 meters

Certifications and Compliances

Safety: For safety summary see page 4
 Electromagnetic Compatibility: Emissions and Immunity to EN 61326: Electrical Equipment for Measurement, Control and Laboratory use
 Immunity to Industrial Locations: Reference PG unit for immunity specifications

Emissions

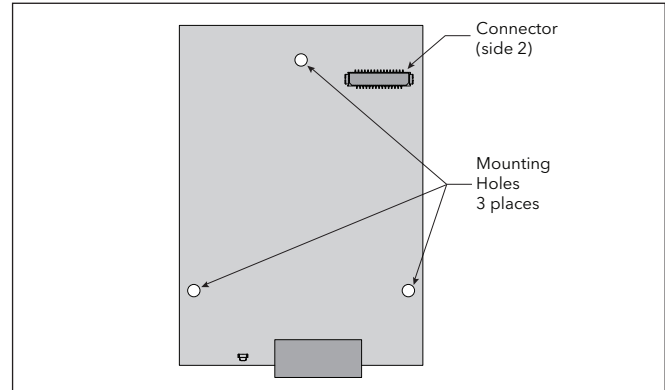
Emissions: EN 55011 Class A

Construction

Installation Category I, Pollution Degree 2.

Installation Requirements

Card must be installed inside the rear cover of a PG operator interface with the hardware provided. See "Installing the PGX-DNET Option Card" for more details.



Installing the PGX-DNET Option Card

Mounting Instructions

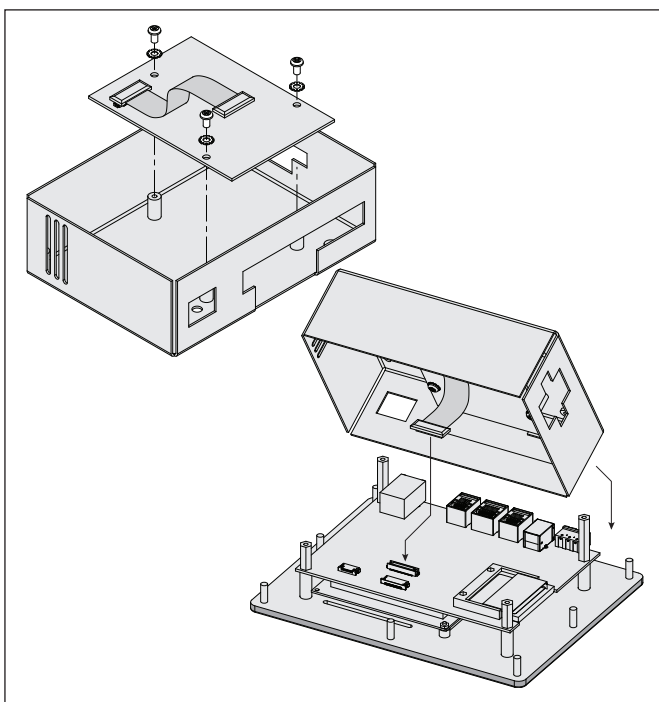
Each PGX-DNET option card comes with a cable for communications and three screws for attaching the option card to the inside of the PG operator interface's rear cover.

To install the option card, remove all power and I/O communications cables from the unit. The PG operator interface literature contains instructions for removing the rear cover. Refer to the "Battery & Time Keeping" section.

Using the three screws provided, connect the option card to the rear cover as shown.

Connect the cable from the option card to CN11 on the main board of the PG operator interface as shown. Be sure both ends of the cable are firmly seated into their appropriate connector housings.

Carefully replace the rear cover by reversing the instructions for removing the rear cover.



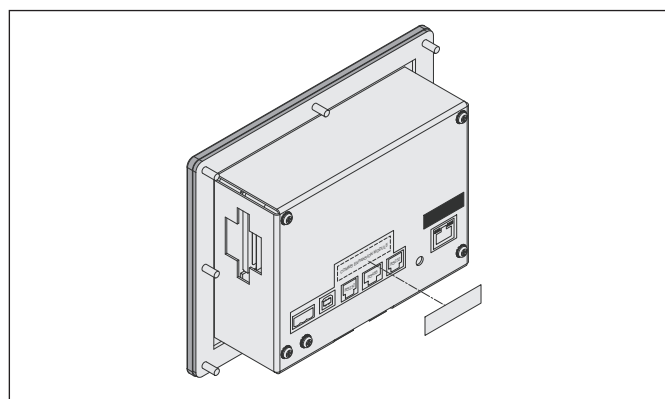
CAUTION - THE OPTION AND MAIN CIRCUIT BOARDS CONTAIN STATIC SENSITIVE COMPONENTS. BEFORE HANDLING THE CARDS, DISCHARGE STATIC CHARGES FROM YOUR BODY BY TOUCHING A GROUNDED BARE METAL OBJECT. IDEALLY, HANDLE THE CARDS AT A STATIC CONTROLLED CLEAN WORKSTATION. ALSO, HANDLE THE CARDS BY THE EDGES ONLY. DIRT, OIL, OR OTHER CONTAMINANTS THAT MAY CONTACT THE CARDS CAN ADVERSELY AFFECT CIRCUIT OPERATION.



WARNING - DEPENDING UPON THE PG OPERATOR INTERFACE, HIGH VOLTAGE MAY BE PRESENT INSIDE THE OPERATOR INTERFACE. BE SURE TO REMOVE ALL POWER BEFORE REMOVING THE REAR COVER OF THE OPERATOR INTERFACE. EMISSIONS EN 55011 CLASS A.

The Option Card Label

Place the option card label on your rear cover in the space indicated by the dashed lines and labeled "COMMS EXPANSION MODULE."



Power Supply Requirements

New and existing installations

The PGX-DNET option card draws all of its power from the main board of your PG operator interface. The specifications of your PG operator interface account for the power needs of an option card.

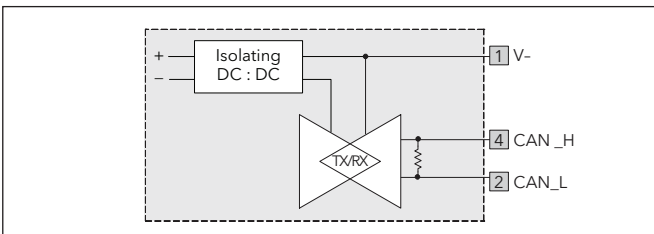
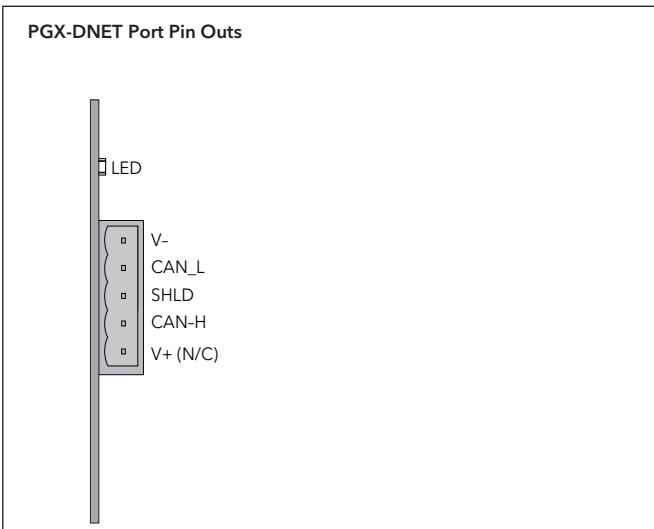
Communicating with the PGX-DNET Option Card

Configuring a PGX-DNET Option Card

The PGX-DNET is configured using GUIcon software. GUIcon is available as a free download from www.eurotherm.com. Updates to GUIcon for new features and drivers are posted on the website as they become available. By configuring the PGX-DNET using the latest version of GUIcon, you are assured that your unit has the most up-to-date feature set. GUIcon software can configure the PGX-DNET through the RS232 PGM port, USB port, Ethernet port or CompactFlash socket on your PG operator interface. Additional information can be found in your PG hardware bulletin and the GUIcon user manual.

DeviceNet Port Protocols

The PGX-DNET option card has one DeviceNet port. This port may be configured for various DeviceNet protocols. Check www.eurotherm.com for currently supported protocols.



V-

Position 1 of the pluggable connector provides a CAN ground connection. This terminal is isolated from the HMI unit.

CAN_L

Position 2 of the pluggable connector provides the CAN_L bus line (active low). This terminal is isolated from the HMI unit.

SHLD (CAN SHIELD)

Position 3 of the pluggable connector is provided for shield connections. This position is available to tie shield wires to earth ground. The SHLD position is internally tied to the PG enclosure.

CAN_H

Position 4 of the pluggable connector provides the CAN_H bus line (active high). This terminal is isolated from the HMI unit.

V+

Position 5 of the pluggable connector is provided for optional 24 VDC connections. This position is available only to tie 24 VDC wires together. The PGX-DNET card neither provides 24 VDC power nor uses 24 VDC power through this connection. The V+ position is not connected to any circuitry internal to the PGX-DNET option card or PG HMI unit.

Software/Unit Operation

LED State	PGX-DNET Card Indication
Off	Initializing
Flashing green	The device is online and is waiting communications from other devices.
Green	The device is online and has established communications with another device.
Flashing red	One or more established communications have timed out.
Red	The device has detected an error that has rendered it incapable of communicating on the network (duplicate MAC ID or bus inactivity).

GUIcon Software

GUIcon software is available as a free download from www.eurotherm.com. The latest version of the software is always available from the web site, and updating your copy is free.

Troubleshooting your PGX-DNET Option Card

If for any reason you have trouble operating, connecting, or simply have questions concerning your new PGX-DNET option card, contact the Eurotherm™ technical support

Ordering Information

Model No	Description	Part Number
DeviceNet	option card for PG operator interfaces with isolated high speed communications ports	PGX-DNET

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.



WARNING - THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C, D, HAZARDOUS LOCATIONS, OR NON-HAZARDOUS LOCATIONS ONLY.



WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.



WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.



CAUTION: Risk Of Danger.
Read complete instructions prior to installation and operation of the unit.

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