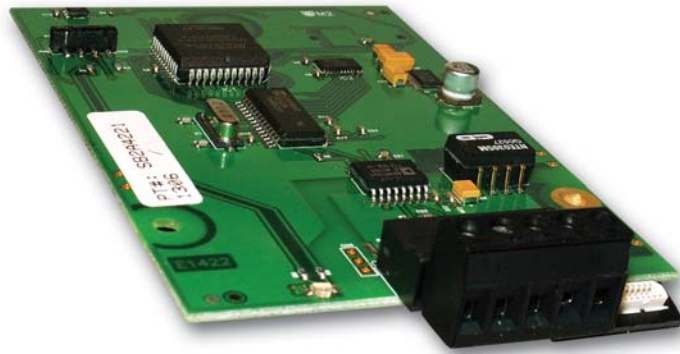


PGX-CAN

PenGUIn™ machine-HMI

MODEL

i n v e n s i s
Eurotherm



CANopen Option Card for PG Operator Interface Terminals

Specification Sheet

- Configured using GUIcon software
- Digitally isolated CANopen port capable of communicating with any CANopen device
- Powered and configured from PG operator interface terminal
- Built-in termination resistor selectable through jumper setting
- Installation and connection hardware included with card

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-CAN 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 CANopen communications port. It is built with digital isolation to protect the operator interface from the CANopen bus and vice versa. It provides the ability to communicate to any high speed CANopen device. The PGX-CAN option board has a termination resistor built-in, and is selectable through a jumper setting. 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 CANopen bus, without disturbing communications with other devices on the bus.

Contents of Package

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

CANopen

imagine communication without limitation

Specification

Power Requirements

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

Communications

CANopen port: The CANopen port has format and baud rates that are software programmable up to 1M baud and are digitally isolated. This port may be configured for various CANopen protocols.

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

Immunity to Industrial Locations

Reference PG unit for immunity specifications

Emissions

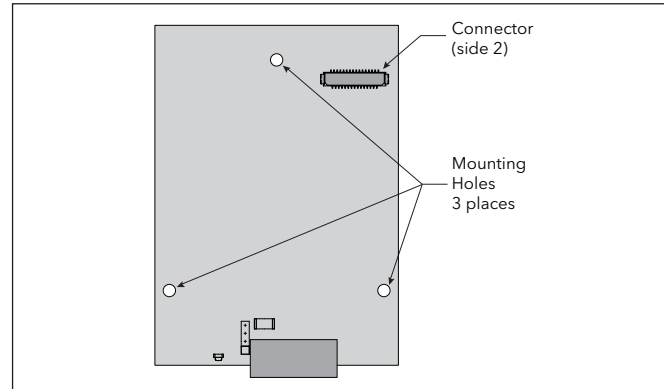
Emissions: EN 55011 Class A

Construction

Installation Category I, Pollution Degree 2.

Installation Requirements

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



Installing the PGX-CAN Option Card

Mounting Instructions

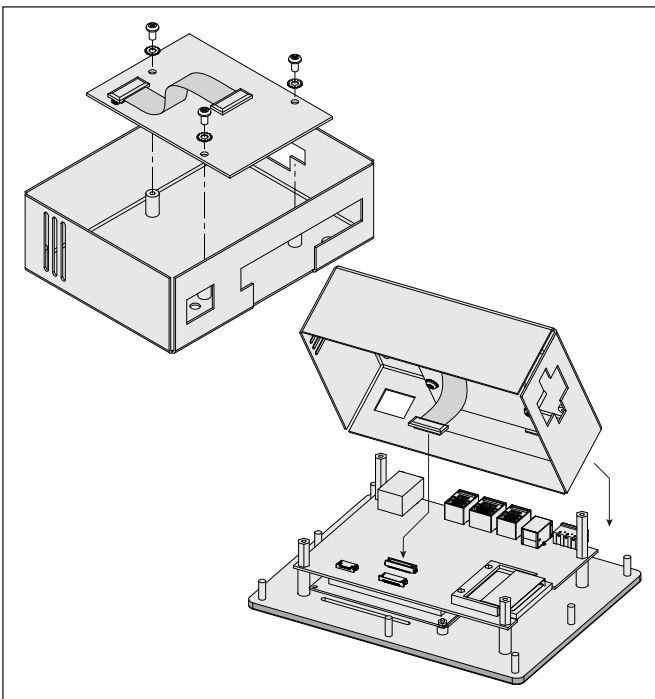
Each PGX-CAN option card comes with a cable for communications and three screws for attaching the option card to the inside of the PG operator interface's rear cover.

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.



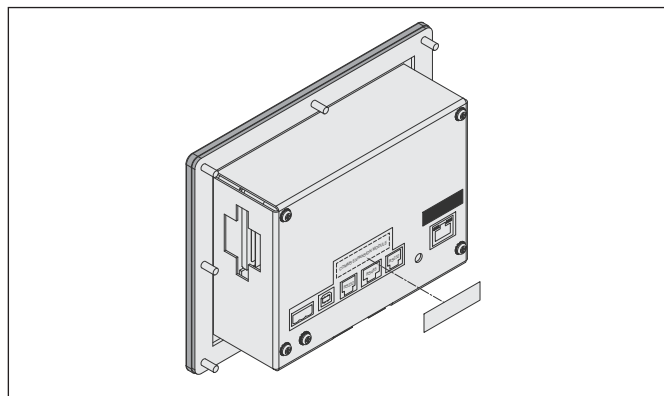
CAUTION - THE OPTION AND MAIN CIRCUIT BOARDS CONTAIN STATIC SENSITIVE COMPONENTS. BEFORE HANDLING THE CARDS; DISCHARGE STATIC CHARGES FROM YOUR BODY BY TOUCHING A GROUNDED BARE METAL OBJECT. IDEALLY HANDLE THE CARDS AT A STATIC CONTROLLED CLEAN WORKSTATION. ALSO HANDLE THE CARDS BY THE EDGES ONLY. DIRT, 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.

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-CAN 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.

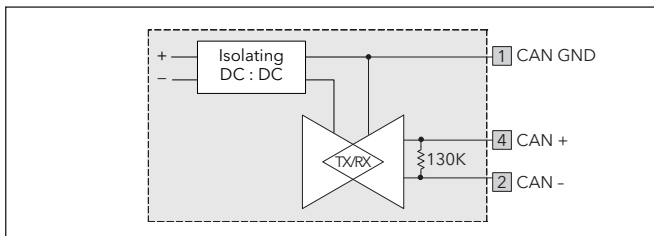
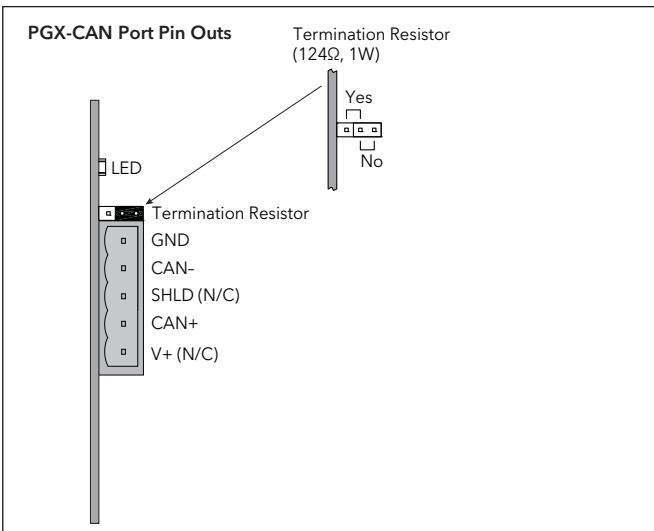
Communicating with the PGX-CAN Option Card

Configuring a PGX-CAN Option Card

The PGX-CAN is configured using GULcon software. GULcon is available as a free download from www.eurotherm.com. Updates to GULcon for new features and drivers are posted on the website as they become available. By configuring the PGX-CAN using the latest version of GULcon, you are assured that your unit has the most up-to-date feature set. GULcon software can configure the PGX-CAN 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 GULcon user manual.

CANopen Port Protocols

The PGX-CAN option card has one CANopen port. This port may be configured for various CANopen protocols.



Software/Unit Operation

LED

The LED will illuminate green when the PGX-CAN option card establishes communication with other CANopen devices (RUN). The LED will illuminate red if no communications have been established with other CANopen devices (ERROR).

GULcon Software

GULcon 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.

Termination Resistor

An onboard termination resistor is selectable through a jumper setting. The termination resistor is rated for 124Ω at 1W. If a different termination resistance is desired, choose the jumper setting for no termination resistor. At this point you will be required to connect your own termination resistor between positions 2 and 4 of the five position connector.

CAN GND

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

CAN-

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

SHLD (optional CAN shield)

Position 3 of the pluggable connector is provided for optional shielded connections. This position is available only to tie shielded wires together or to earth ground. There is no internal connection to earth ground. The SHLD position is not connected to any circuitry internal to the PGX-CAN option card or PG HMI unit.

CAN+

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

V+ (optional 24 VDC)

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-CAN 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-CAN option card or PG HMI unit.

Troubleshooting your PGX-CAN Option Card

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

Ordering Information

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

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.

Read complete instructions prior to installation and operation of the unit.

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i n v e n s y s
 Operations Management