ProMix® PD2K
CGM Installation Kits

For use with the ProMix® PD2K to provide FieldBus communication abilities. For professional use only.

Important Safety Instructions
Read all warnings and instructions in this manual and in your system installation, operation, and repair manuals. Save these instructions.
Related Manuals

Current manuals are available at www.graco.com.

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<td>332564</td>
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Introduction

This manual provides instructions for installing a communication gateway module (CGM) in a ProMix® PD2K system. See Manual 334183 for detailed information on the CGM for the Modbus TCP protocol. See Manual 312864 for further information on the CGM for the DeviceNet, EtherNet/IP, and PROFINET protocols. See the ProMix PD2K Operation Manual 332564 or ProMix PD2K Dual Panel Operation Manual 3A4486 for setup details and available internal data.
Installation

Installation

Mount the Module

1. Remove power from the system.
2. Install the CGM on the mounting bracket in the Electrical Control Box.
   
   a. Remove access cover (C). Loosen two screws (D) and remove CGM (A) from the base (B).
   
   b. Use four screws (6) to mount the base (B) to the CGM bracket in the Electrical Control Box. See the following mounting dimensions.

   c. Install the grounding screw (4) and washer (5) and tighten so that the grounding screw threads into the mounting bracket.
   
   d. Mount the CGM (A) on the base (B) with two screws (D).
   
   e. Install the access cover (C).

<p>| | |</p>
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<tr>
<th></th>
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<tbody>
<tr>
<td>F</td>
<td>10 x 0.213 in. hole size</td>
</tr>
<tr>
<td>G</td>
<td>2.75 in. (70 mm)</td>
</tr>
<tr>
<td>H</td>
<td>3.25 in. (83 mm)</td>
</tr>
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</table>
Connect the Cables

NOTE: CAN ports are located on the base of the cube-shaped modules.

1. Disconnect the existing CAN cable from Isolation Board port J1 and connect it to CAN1 of the CGM module.

2. Connect the supplied CAN cable (2) to CAN2 of the CGM module and to port J1 of the Isolation Board.

3. Route both CAN cables through the wire duct adjacent to the left side of the CGM.

NOTE
To avoid severe damage to the CGM modules, ensure that each CAN cable is connected to the appropriate CAN connection.

4. If used, connect the ethernet, DeviceNet, or PROFINET cable to the CGM as applicable. Connect the other end of the cable to the FieldBus device.

   NOTE: Connect the CGM to the FieldBus per FieldBus standards. The Ethernet and Modbus TCP interface operate at 100Mbit, full duplex. The interface is auto polarity sensing and auto-crossover capable.

   a. Locate fitting (F) on the Electrical Control Box.

   b. Disconnect the CAN cable from Isolation Board J4.

   c. Remove the nut on fitting (F).

   d. Remove the fitting far enough to allow disassembly of the fitting and to open the grommet.

   e. Route FieldBus cable (EC) through the left wireway up to the grommet. Ensure that the ethernet cable is inserted with enough length to allow for routing within the box and for connection to the CGM.

   f. Insert the FieldBus cable into the grommet hole and insert the grommet into the fitting.

   g. Insert the fitting through the Electrical Control Box wall and install the nut. Tighten finger tight.

   h. Attach the CAN cable to Isolation Board J4.

   i. Attach a ferrite (3) near the end of the FieldBus cable.

   j. Attach the FieldBus cable to the CGM.

5. Connect ferrites (3) on CAN cables, adjacent to the CGM.
**Installation**

**To Connect a Second Module**

1. Install the new module (see Mount the Module, page 4).

2. Disconnect the cable from CAN 1 on the first module. Connect it to CAN 1 on the newly installed second module.

3. Connect the supplied CAN cable (2) to CAN 1 on the first module and to CAN 2 on the newly installed second module.

4. Connect ethernet, DeviceNet, or PROFINET, if used. (See step 4 of Connect the Cables, page 5.)

5. Connect ferrites (3) on CAN cables, adjacent to the CGM.

**NOTE:** If both modules are Modbus TCP, the rotary switch on one must be set at position “0” and the other should be set to position “1.”

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**NOTICE**

To avoid severe damage to the CGM modules, ensure that each CAN cable is connected to the appropriate CAN connection.
## Kit 24W829 ProMix PD
## Kit 26A303 ProMix PD Dual Mix
## Kit 25D997 ProMix PD Dual Mix with Profinet
## Kit 26C284 ProMix PD3K+

<table>
<thead>
<tr>
<th>Ref</th>
<th>Part</th>
<th>Description</th>
<th>Qty</th>
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<tbody>
<tr>
<td>1</td>
<td>17C087</td>
<td>TOKEN, map, for ProMix PD only</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>17N995</td>
<td>TOKEN, map, for ProMix PD Dual Mix only</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>17W599</td>
<td>TOKEN, map, for ProMix PD3K+ only</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>121227</td>
<td>CABLE, CAN, female/female, 0.6m</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>121901</td>
<td>SUPPRESSOR, box snap, ferrite</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>123286</td>
<td>SCREW, machine, #6–32 x 1.5 in.</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>100272</td>
<td>WASHER</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>113964</td>
<td>SCREW, pan head, #6–32 x 0.75 in.</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
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<td>MODULE, Communications Gateway</td>
<td>1</td>
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<tr>
<td></td>
<td>CGMDNO</td>
<td>DeviceNet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CGMEPO</td>
<td>EtherNet/IP</td>
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<td></td>
<td>CGMPNO</td>
<td>PROFINET</td>
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<tr>
<td></td>
<td>24W462</td>
<td>Modbus TCP</td>
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</table>

Appendix A: Graco PD2K Integration with a PLC

Allen Bradley PLC

This appendix outlines how to integrate a ProMix PD2K with an Allen Bradley Studio 5000 Programmable Logic Controller (PLC).

To integrate, the ProMix PD2K must have the Ethernet/IP protocol for PLC CGM (Graco Part number CGMEPO) installed prior to performing this procedure.

In the PLC software, perform the following steps:

1. Add the new Ethernet module. Right-click and select **New Module**.

![New Module](image)

2. On the **Select Module Type** screen, do the following:

   a. In the search field, type **generic**.
   
   b. Select **ETHERNET-MODULE** **Generic Ethernet Module**. **NOTE**: Do not select the Close on Create checkbox.
   
   c. Click **Create**.

![Select Module Type](image)
3. On the **New Module** screen, configure the module by defining the fields as follows:

![New Module Screen](image.png)

**NOTE:** The **Open Module Properties** checkbox must remain selected so that the configuration can be completed after completing this screen.

<table>
<thead>
<tr>
<th>Field</th>
<th>Required?</th>
<th>Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Yes</td>
<td>Enter a name for the module. The name appears in the Ethernet directory shown by the figure in step 1.</td>
</tr>
<tr>
<td>Description</td>
<td>No</td>
<td>Use any description desired.</td>
</tr>
<tr>
<td>IP Address</td>
<td>Yes</td>
<td>Enter the static IP address of the Graco EtherNet/IP CGM installed in the system.</td>
</tr>
<tr>
<td>Input Assembly Instance</td>
<td>Yes</td>
<td>Enter 100, which is a device-specific parameter for the Graco EtherNet/IP CGM.</td>
</tr>
</tbody>
</table>
| Input Size             | Yes       | Enter the number of 32–bit registers that are allocated for input variables in the Graco EtherNet/IP CGM.  
  • For ProMix PD systems, enter 41.  
  • For ProMix PD2K Dual Panel systems, enter 62.  
  • For ProMix PD3K+ systems, enter 46. |
| Output Assembly Instance| Yes     | Enter 150, which is the device-specific parameter for the Graco EtherNet/IP CGM. |
| Output Size            | Yes       | Enter the number of 32–bit registers that are allocated for output variables in the Graco EtherNet/IP CGM.  
  • For ProMix PD systems, enter 22.  
  • For ProMix PD2K Dual Panel systems, enter 30.  
  • For ProMix PD3K+ systems, enter 18. |
| Configuration Assembly Instance | Yes | Enter 1. |
| Configuration Size     | Yes       | Enter 0. |

4. Click **OK**.
5. On the **Module Properties Report** window, on the **Connection** tab, do the following:

![Module Properties Report](image)

- **a.** In the **Requested Packet Interval (RPI)** field, enter the interval value.
  - For ProMix PD systems, enter a value of **30** ms or more.
  - For ProMixPD Dual Mix and ProMix PD3K+ systems, enter a value of **50** ms or more.
- **b.** Select checkboxes as needed.
- **c.** Click **OK** to save all changes and exit this screen.
  
  **NOTE:** An asterisk appears after the tab heading if unsaved changes are present. Click **Apply** to save changes without exiting this screen.
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Original Instructions. This manual contains English. MM 334494

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