SIEMENS

Installation Instructions
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Point Expansion Modules

Product Description

Point Expansion Modules (PXM) are a collection of devices that expand the number of points controlled and monitored on the MEC Expansion Bus or on the FLN.

Analog and Digital Point Expansion Modules are compatible with the MEC Expansion Bus and the FLN (P1) from any APOGEE or pre-APOGEE field panel equipped with an FLN.

For more information on Point Expansion Modules hardware and applications, see the *Modular Equipment Controller Owner's Manual* (125-2183).

Product Numbers

549-210 Digital Point Expansion, HOA Ready, 8 DI, 4 DO

549-211 Digital Point Expansion with HOA, 8 DI, 4 DO

549-212 Digital Point Expansion, HOA Ready, 4 DI, 4 DO

549-213 Digital Point Expansion with HOA, 4 DI, 4 DO

549-209 Analog Point Expansion, 8 AI

549-214 Analog Point Expansion, HOA Ready, 4 AI, 4 AO

549-215 Analog Point Expansion with HOA, 4 AI, 4 AO

Warning/Caution Notations

WARNING:	⚠	Personal injury or property damage may occur if you do not follow the procedure as specified.
CAUTION:	⚠	Equipment damage or loss of data may occur if you do not follow the procedure as specified.

Required Tools and Material

- Wire stripper/side cutters
- Phillips screwdriver
- Level
- Tape measure
- Digital multi-meter (DMM)

To mount on a surface

- Electric drill
- Black marker
- Four No. 8 × 3/8 self-tapping Phillips screws

To mount on concrete or masonry

- Masonry drill bit
- Four lead wall anchors

Expected Installation Time

20 minutes

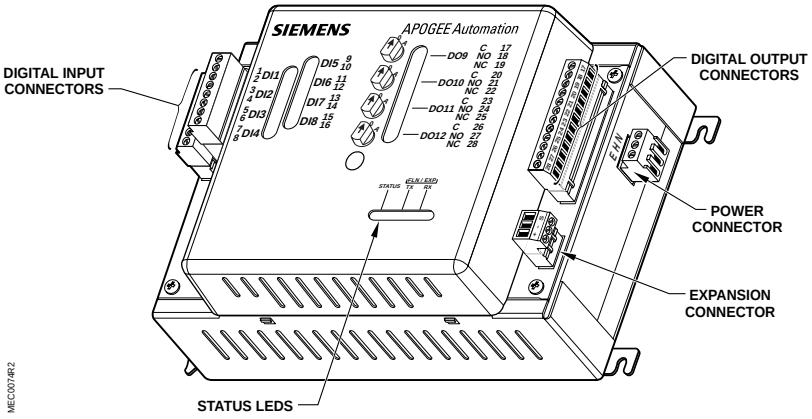

Figure 1. Digital Point Expansion (pictured with HOA control switches).

Prerequisites

- All necessary wiring pulled
- For mounting in an MEC enclosure:
  - MEC and enclosure installed
  - 115V or 230V service box kit installed, if applicable

CAUTION:
Class 1 wiring must be kept away from all Class 2 wiring. Class 1 and Class 2 wiring are required by UL to be kept separate from each other.

NOTE: When installing a Point Expansion Module with HOA control switches (549-211, 549-213, 549-215), verify that all control switches are in the AUTO position.

Installation

There are two options for installation:

- Mounting the Point Expansion Module on a surface is for energy management only.
- Mounting the Point Expansion Module inside an MEC enclosure is for smoke control applications and CE compliance.

CE Compliance Requirements

For installations requiring CE compliance, the Point Expansion Module must be installed in a metal enclosure rated at IP20 minimum.

Mounting on a Surface

For energy management only

1. Align the PXM on the mounting surface. The module must be positioned to provide a 3-inch minimum clearance on both the left and right sides for wires to ports and connectors.
2. Using the mounting ears on the back of the PXM as a template, mark the position of the four mounting holes on the surface.
3. Drill the four mounting holes, or start the screws into the marked template holes.
4. Secure the PXM using the appropriate mounting hardware for the surface.
5. Terminate wires to both the power connector and the appropriate expansion and point connectors.

The installation is now complete.

Mounting in an MEC Enclosure

Required for smoke control applications

WARNING:
Make sure AC power to the enclosure is turned OFF.

1. Carefully align the PXM on the perforated backplane of the enclosure (Figure 2). If mounting in an enclosure with another point block, PXM, or an MEC, leave at least one-half inch between each controller.
2. Using the rear of the module as a template, mark the position of the four mounting holes.
3. Start the screws (provided with the enclosure) in the perforated backplane.
4. Place the PXM on the backplane of the enclosure so that the mounting ears rest on the screws and tighten the four screws.
5. Terminate wires from the PXM to the power connector. Then terminate wires to the appropriate expansion and point connectors.

The installation is now complete.

If you need more information on the MEC service box, see the *MEC Service Box Installation Instructions* (586-135).

How to Tell if Switches are Functioning Correctly

For HOA-equipped PXMs, a green LED is located below the HOA switches. The LED flashes at start-up, indicating that all of the switches are in the AUTO position and functioning correctly.

If any control switch is moved out of AUTO, the light will stop flashing and remain on.

Ordering Information

Controller Range

Description	Product Number
Power MEC 1200EB, 8DI, 8DO, 8AI, 8AO, point expansion support, HOA-ready, BACnet/IP ALN	549-632
Power MEC 1200EFB, 8DI, 8DO, 8AI, 8AO, point expansion support, FLN support, HOA-ready, BACnet/IP ALN	549-634
Power MEC 1200ELB, 8DI, 8DO, 8AI, 8AO, point expansion support, LONWORKS network, HOA-ready, BACnet/IP ALN	549-636

Point Expansion Modules

Description	Product Number
Analog Point Expansion Module, 4AI/4AO 24V HOA-ready – for MEC Expansion or FLN	549-214
Analog Point Expansion Module, 4AI/4AO 24V with HOA – for MEC Expansion or FLN	549-215
Digital Point Expansion Module, 4DI/4DO 24V HOA-ready – for MEC Expansion or FLN	549-212
Digital Point Expansion Module, 4DI/4DO 24V with HOA – for MEC Expansion or FLN	549-213
Analog Point Expansion Module, 8AI 24V – for MEC Expansion or FLN	549-209
Digital Point Expansion Module, 8DI/4DO 24V HOA-ready – for MEC Expansion or FLN	549-210
Digital Point Expansion Module, 8DI/4DO 24V with HOA – for MEC Expansion or FLN	549-211

Accessories

Description	Product Number
HOA Upgrade Kit Analog Point Block 4AI/4AO	549-520
HOA Upgrade Kit Digital Point Block 4DI/4DO	549-518
HOA Upgrade Kit Digital Point Block 8DI/4DO	549-519
MMI Extension Cable, (RJ-11 male to female) for printers or terminals outside of enclosure	545-712
MMI Cable (DB9 female to RJ-11 6-pin) for no flow control operator interface connections	540-143