

PXC Compact Series Extended Temperature Range Option

Product Description

The PXC Compact Series communicates with other field panels or workstations on a peer-to-peer Automation Level Network (ALN). The following communication options are supported:

- Native BACnet/IP communications over 10/100 MB Ethernet networks
- Native BACnet MS/TP on RS-485
- Ethernet TCP/IP ALN
- RS-485 ALN or FLN

The PXC Compact is available in 16- or 24-point versions with optional support for FLN devices (requires additional license and PXC Compact model with both an Ethernet and an RS-485 port). Selected models also support ability to reside as a P1 FLN device.





For information on the PXC Compact Series with a standard temperature range for use in controlled spaces, see the *PXC Compact Series Installation Instructions (553-168)*.

Product Numbers

PXC16.2-ER.A	PXC Compact, 16 point, BACnet/IP ALN, rooftop option
PXC16.2-ERF.A	PXC Compact, 16 point, BACnet/IP ALN, rooftop option, RS-485 FLN supported with additional license
PXC24.2-ER.A	PXC Compact, 24 point, BACnet/IP ALN, rooftop option
PXC24.2-ERF.A	PXC Compact, 24 point, BACnet/IP ALN, rooftop option, RS-485 FLN supported with additional license
PXC24.2-PER.A	PXC Compact, 24 point, Ethernet/IP ALN, rooftop option
PXC24.2-PERF.A	PXC Compact, 24 point, Ethernet/IP or RS-485 ALN, rooftop option, RS-485 FLN supported with additional license
PXC24.2-PR.A	PXC Compact, 24 point, RS-485 ALN, rooftop option
PXA-DIN16KIT	Accessory kit with four 16" (406 mm) DIN rails

Warning/Caution Notations

WARNING:  Personal injury or property damage may occur if you do not follow a procedure as specified.

CAUTION:  Equipment damage or loss of data may occur if you do not follow a procedure as specified.

Required Tools and Materials

- Wire stripper/side cutter
- Small flat-blade screwdriver
- Phillips screwdriver
- Electric drill and Phillips driver bit
- Level
- Tape measure
- Digital multimeter (DMM)
- Black marker
- Masonry drill bit (to mount on concrete or masonry)
- Four wall anchors (to mount on concrete or masonry)
- Optional DIN rail (1.38" W × 0.276" H × 0.04" D (35 mm W × 7 mm H × 1 mm D))

Included Materials

The following screws are included for mounting the PXC Compact without a DIN rail:

- Four No. 8-18 × 3/8" self-tapping Phillips screws
- Four No. 8-18 × 3/4" self-drilling Phillips screws
- Two No. 8-18 × 1-3/4" self-drilling Phillips screws

Expected Installation Time

20 minutes

Prerequisites



CAUTION:

No power wiring is connected to the PXC Compact at this time.

- If mounting in an enclosure:
 - Enclosure is installed.
 - The power source is installed, as applicable.
 - The power is OFF.
- All necessary wiring is pulled and terminated per the layout drawing.
- Power and communication wiring is terminated to the removable plugs supplied with the devices.

CE Compliance Requirements

Must be installed inside a metal enclosure rated at IP20 minimum.

Energy Management Applications

For energy management only (low voltage Class 2), the PXC Compact may be mounted on a flat surface.



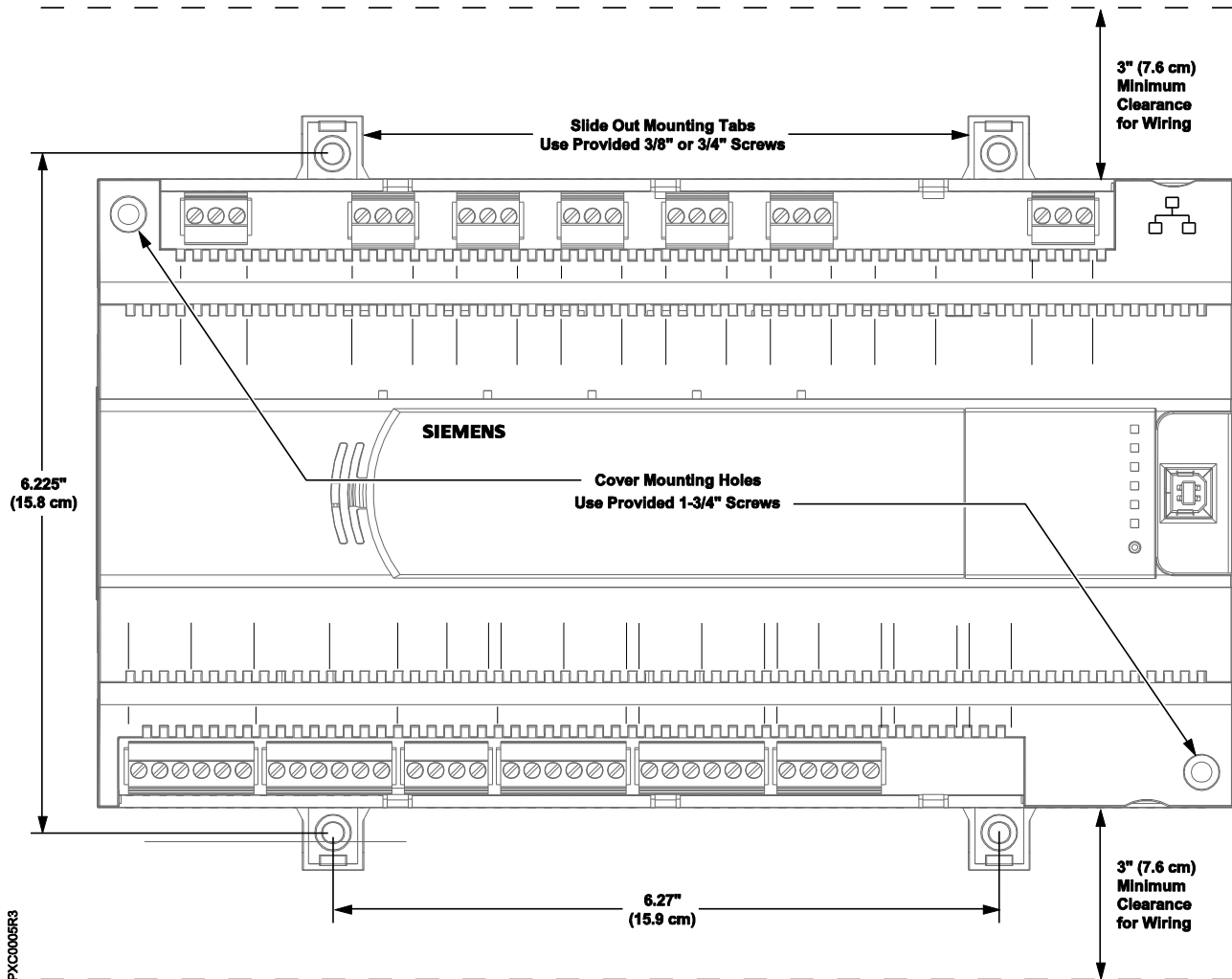
If required, use an enclosure that is suitable for the operating environment of the PXC Compact. Operate in a dry location, which is protected from exposure to salt spray or other corrosive elements. Exposure to flammable or explosive vapors must be prevented.

Outdoor Applications

For outdoor applications, mount the rooftop PXC Compact inside a NEMA-4 rated enclosure or a similarly protected environment.

Applications Requiring a Secure Enclosure

Mount the PXC Compact inside a listed enclosure along with a Service Box and Sidewall Kit, if needed.



Installation Instructions



WARNING:

Turn OFF AC power at the circuit breaker panel.



CAUTION:

UL Listings require that NEC Class I and Class II wiring be kept separate from each other. Use separate conduit and cable tie bars to separate Class I DO wires from all other Class II wiring.



Securely fasten the PXC Compact so that it does not come loose when point connectors are removed.



If you need to reinsert one of the mounting tabs, see the *PXC Compact Series Owner's Manual* (553-104) for instructions.

The PXC Compact may be mounted either vertically (with 24 Vac and DOs on the right) or horizontally (with 24 Vac and DOs at the top).

Options for Mounting the PXC Compact

➤ Select one of the following options for installation:

- Mount the controller on a DIN rail by using the four slide-out mounting tabs.
- Fasten the controller to a surface or enclosure backplane with screws

Option 1: Mounting the Controller on a DIN Rail



To provide a minimum clearance for wiring, allow 6 inches (15 cm) from the center of the DIN rail to obstructions on either side.

Installing the DIN Rail

Do the following if the DIN rail is not already installed.

1. Align and level the DIN rail on the mounting surface or the backplane of the enclosure.
2. Mark the position of the mounting holes at either end of the DIN rail.
3. Using wall anchors, if necessary, attach the DIN rail to the surface or the backplane.



For longer DIN rails, use one mounting screw per running foot of DIN rail.

Installing the PXC Compact

1. Slide out the mounting tabs.
2. Align the channel on the back of the device with the DIN rail.
3. Using a flat-blade screwdriver, push in each mounting tab until it clips onto the DIN rail.
4. Continue with *Completing the Installation*.

Option 2: Fastening the Controller with Screws



Allow a minimum clearance of 3 inches (7.6 cm) around the controller ports and connectors for terminating wires.

1. Select one of the following options for fastening the controller:
 - Drive screws through the four slide-out mounting tabs.
 - Drive screws through the two mounting holes in the controller cover and through two mounting tabs at the opposite corners.
2. Slide out the required mounting tabs.



For installation in an enclosure backplane, use the 3/8" self-tapping screws and, if necessary, the 1-3/4" self-drilling screws.

For mounting on a surface, use the 3/4" self-drilling screws and, if necessary, the 1-3/4" self-drilling screws.

3. Align the PXC Compact on the mounting surface and mark the position of the mounting holes.
4. For installation in an enclosure, align the mounting holes of the PXC Compact with holes in the perforated backplane.
5. If necessary, drill the mounting holes and insert wall anchors.
6. Secure the controller using the provided screws.
7. Continue with *Completing the Installation*.

Completing the Installation



CAUTION:

For PXC Compacts with an RS-485 port do not connect the shield wire to the connector.

For installation as either an ALN device or FLN controller, terminate only one end of the shield wire on the enclosure earth ground.

For installation as a FLN device, connect the shields together and tape back.

For a 3-wire system, ↓ terminal is connected to reference wire. Protective ground terminal may be connected to earth ground.

For a 2-wire system, ↓ terminal is not connected. Protective ground terminal must be connected to earth ground.



Do not connect the power or network communication cable until instructed to do so during start-up.

1. Terminate power wiring to the 24 Vac removable plug.
2. If required, remove the RS-485 plug and terminate the communication wiring.
3. Terminate point wiring to the appropriate connectors.

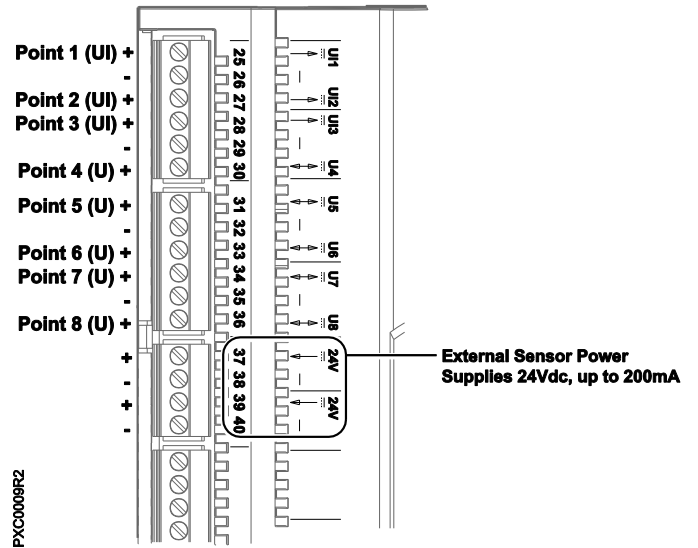


CAUTION:

Adjacent point connections on the PXC Compact share a Common termination.

For specific wiring diagrams, see the *APOGEE Wiring Guidelines for Field Panels and Equipment Controllers* (125-3002).

The installation is now complete.



PXC0006R2



The combined total of the external sensor power outputs cannot exceed 200 mA.

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