SIEMENS

Installation Instructions
Document No. 550-992
August 20, 2014

MS/TP Point Pickup Modules

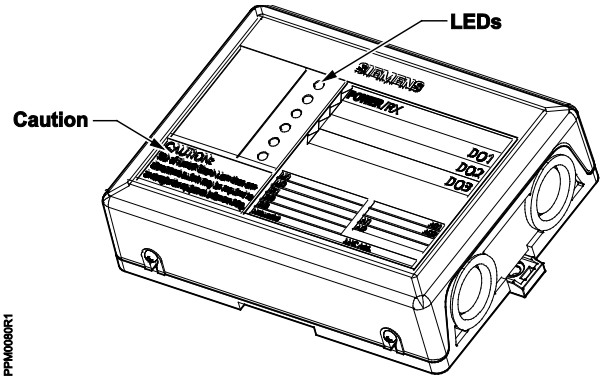


Figure 1. MS/TP Point Pickup Module.

Product Description

The Siemens MS/TP Point Pickup Module (PPM) is a BACnet Application Specific Controller that communicates on a BACnet MS/TP network. The PPM extends the host BACnet Building Controllers control program for local or distributed point expansion.

The MTSP Point Pickup Module Family includes 6 point analog, 6 point digital and 12 point combination module options with a wide range of sensor type support.

Product Numbers

Digital PPM-1U32.BPF (1 Universal Input, 3DI, 2DO, fixed terminal blocks)
Digital PPM-1U32.BPR (1 Universal Input, 3DI, 2DO, removable terminal blocks and manual override switches for commissioning checkout)

Analog PPM-2U22.BPF (2 Universal Input, 2AO, 2AI, fixed terminal blocks)
Analog PPM-2U22.BPR (2 Universal Input, 2AO, 2AI, removable terminal blocks)

Combination PPM-2U3322.BPF (2 Universal Input, 3DI, 3DO, 2AO, 2AI, fixed terminal blocks)
Combination PPM-2U3322.BPR (2 Universal Input, 3DI, 3DO, 2AO, 2AI, removable terminal blocks)

Combination PPM-3U63.BPR (for China only)
(3 Universal Input, 6DI, 3DO, removable terminal blocks)

Caution Notations

CAUTION:	⚠	Equipment damage, or loss of data may occur if you do not follow the procedures as specified.

Required Tools

- Small flat-blade screwdriver 0.11” (3-mm)
- Small Phillips screwdriver 0.15" (4-mm)
- Cordless drill/driver set
- Pliers
- Permanent marker or label maker

Expected Installation Time

Average installation time is 15 minutes. This will vary depending on the device and IO counts.

Prerequisites

- Wiring conforms to NEC and local codes and regulations. For more information, refer to the *Wiring Guidelines* manual (125-3002).
- 24 Vac Class 2 power source available.
- Supply power to the device is OFF.
- Any application specific hardware or devices are installed.

Installation

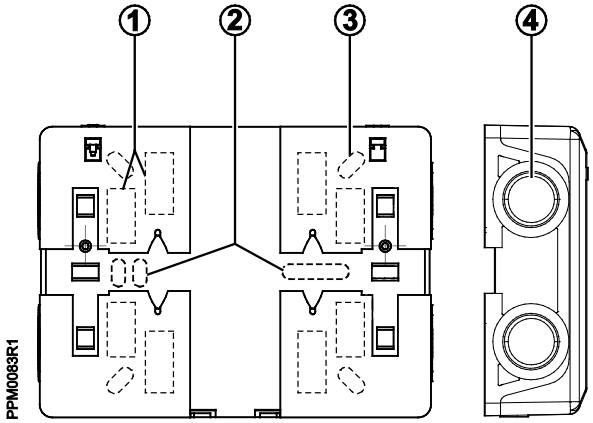


Figure 2. Back plate knockout holes.

1. Bottom plate wiring access
2. 100 mm electrical box mounting
3. 4” x 4” electrical box or flat surface mounting
4. Side plate wiring access

The back plate has knockout holes in various positions, as well as DIN clips, to accommodate a variety of mounting options.

1. Confirm that the power supply to the device is OFF.
2. Remove the cover by first removing the bottom screws (1). While gently pulling on the cover, insert the flat blade of the small screwdriver into the pocket of each snap-tab at the top of the unit and pry to unlock (2).

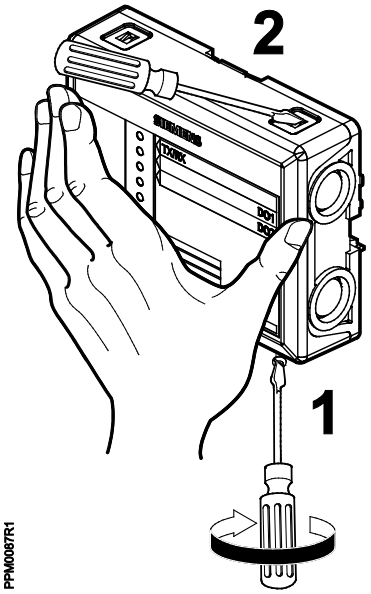


Figure 3. Removing the cover

3. Remove the printed circuit board (PCB) by removing the screw attaching the PCB to the housing. Once the screw is removed, gently lift the lower edge of the board (closest to the screw) up and slide downward, to disengage the top portion of the PCB from the retaining clips.

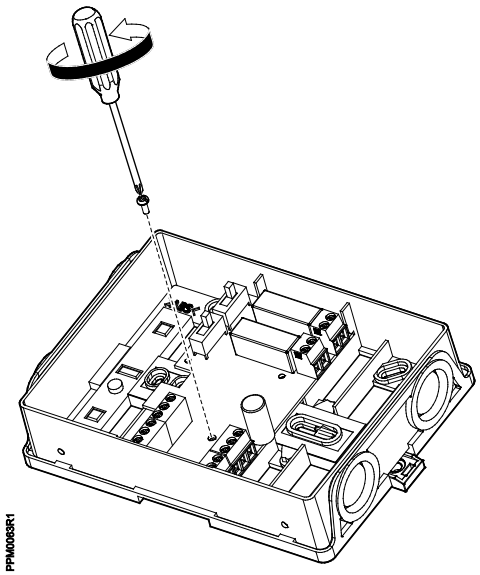


Figure 4. Removing the PCB.

4. Using the pliers, remove the knockouts as required for mounting to an electrical box or a surface, and reattach the PCB.

CAUTION:

Failure to remove the PCB before removing the knockouts can result in damage to the PCB!

5. The DIN clips should first be removed if mounting the device to a flat surface, or to an electrical box that is flush with the wall. To remove the clips, insert the flat blade of the small screwdriver into the pocket of the clip’s snap-tab and gently lift the tab up so it clears the wire spring, then slide the clip to the center of the unit (1). Once in the center, grab the end of the clip and lift it up (2). This allows you to slide the clip out of its track.

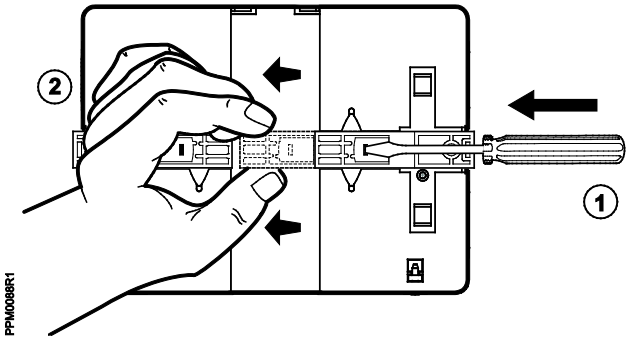


Figure 5. Removing the DIN clip before mounting to a flat surface.

6. Mount the back plate as appropriate. If mounting to a DIN rail, pull the clips back so that the DIN track is completely clear. Place the unit on the DIN rail, then press both clips inwards to lock.

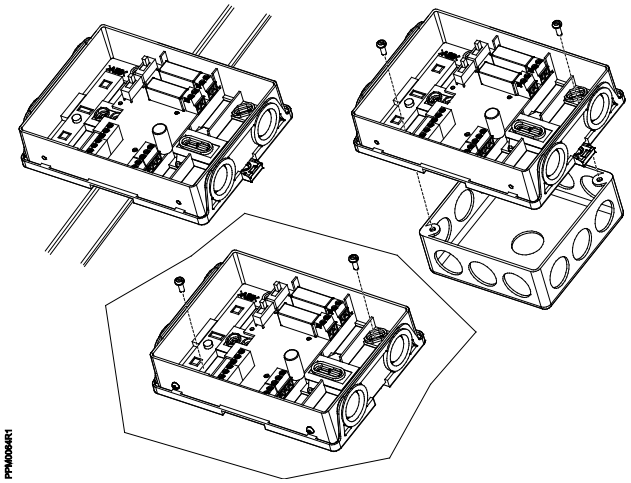
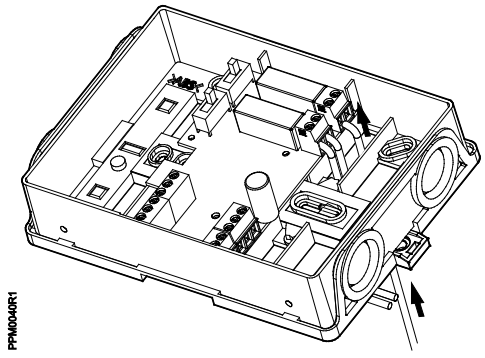


Figure 6. Mounting to a DIN rail, electrical box or flat surface.

7. Run the wiring through the knockout holes to the terminals.



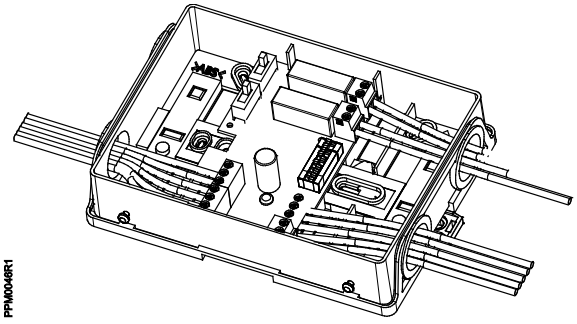


Figure 7. Routing I/O wiring.

8. Connect wiring to power and I/O terminals.

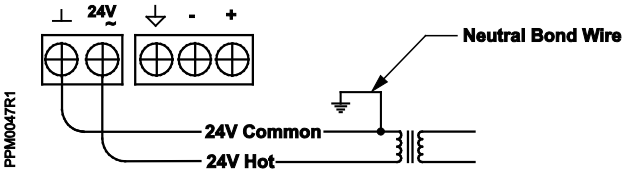


Figure 8. Power Wiring.

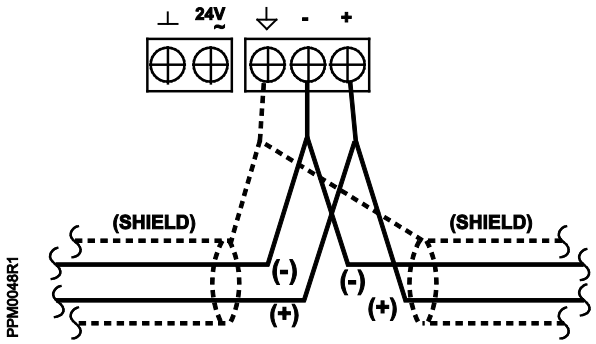


Figure 9. FLN 2 wire network interface.

3-Wire Network Interface

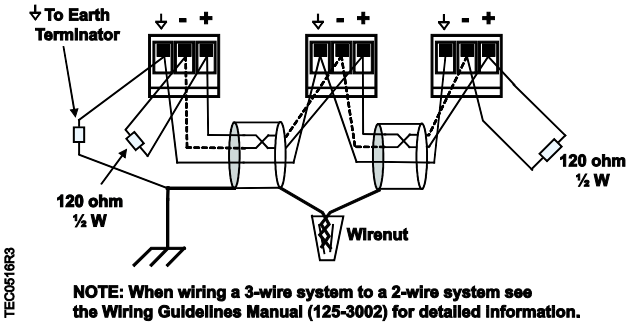


Figure 10. FLN 3-wire interface.

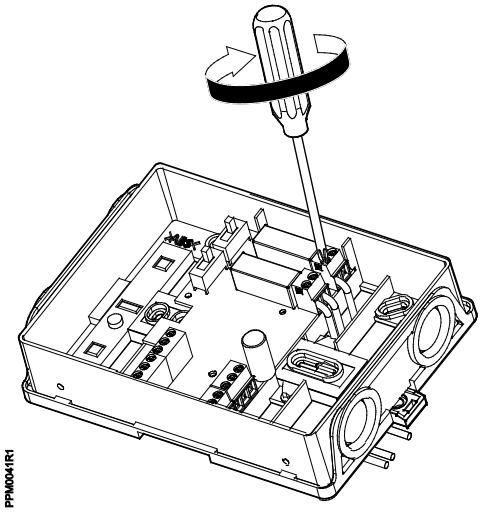


Figure 11. Wiring I/O to terminals.

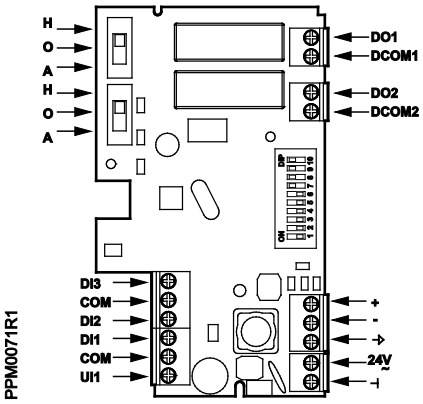


Figure 12. 6 Point Digital controller board.

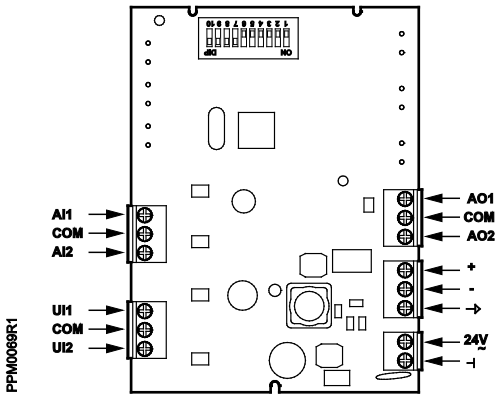
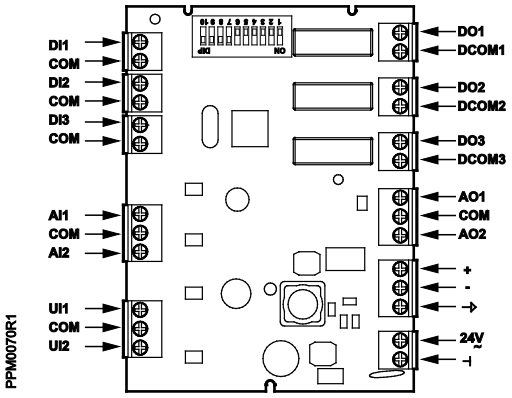
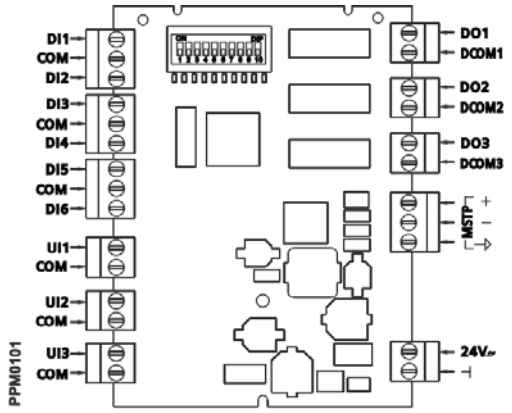


Figure 13. 6 Point Analog controller board



(PPM-2U3322.BPF and PPM-2U3322.BPR)



(PPM-3U63.BPR, for China only)

Figure 14. 12 Point Combination controller board.

9. Set the address using DIP Switches 1 through 8 (Binary 0 to 255)
   Example 1: Switch 7 and 8 ON = Address 3.
   Example 2: Switch 5 and 8 ON = Address 9.

10. Note the device's MAC and network number, as this may be required for startup.

11. Set the device's communication speed (baud rate) by using DIP Switches 9 and 10, following the settings in Table 1.

Table 1. DIP Switch Settings for Baud Rate.

Baud Rate	Switch 9	Switch 10
9600	OFF	OFF
19200	OFF	ON
38400	ON	OFF
76800	ON	ON

12. Restore power.

NOTE: The 6 point digital (PPM-1U32.BPR) has a HOA switch for commissioning.

13. Snap the front cover on. A POWER/RX LED solid ON indicates that the unit is powered, but no communication. A flashing LED indicates that the unit successfully receiving packets on the network.

14. Using the permanent marker or label maker, record the physical point assignments, the network number and MAC address on the label.

The installation is complete.

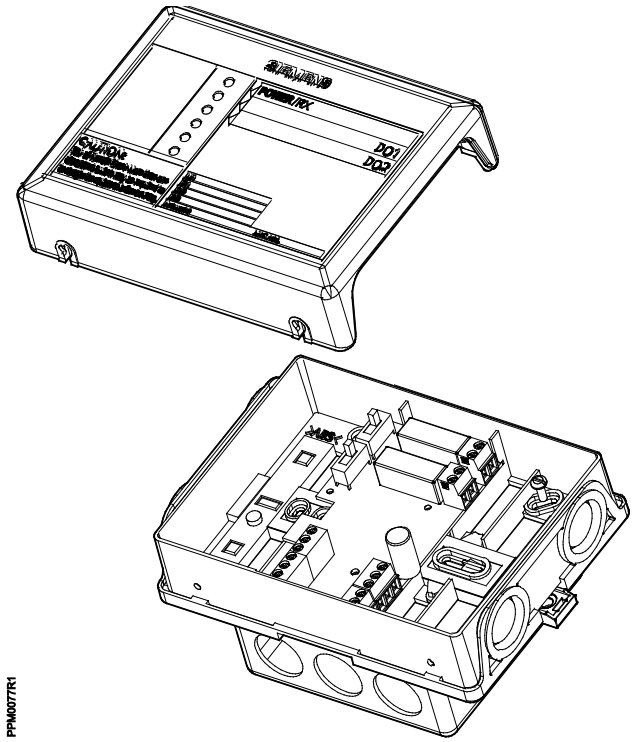


Figure 15. Installing front cover to back plate.

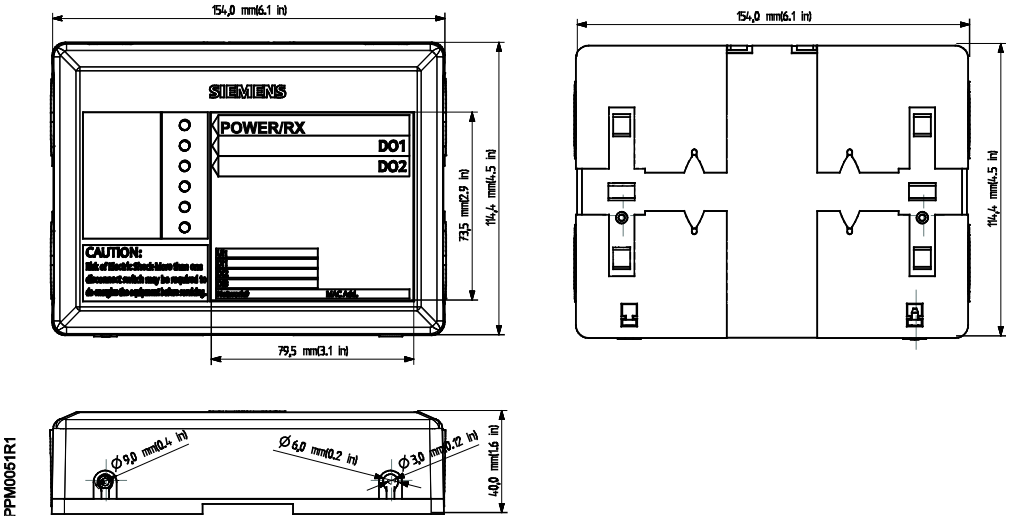


Figure 16. MSTP PPM Dimensions.

NOTE: The PPM may not fit in smaller junction boxes if using multiple or lower gauge wires. A larger junction box or expansion box may be needed in these cases.

I/O Configuration Diagrams

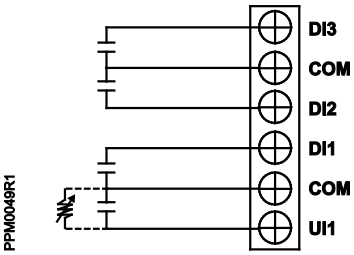


Figure 17. AI/DI wiring for 6 point digital.

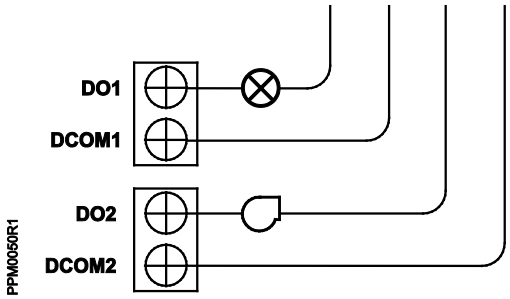


Figure 18. DO wiring for wiring for 6 point digital.

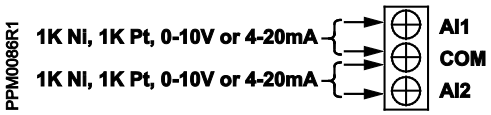


Figure 19. Analog input wiring.



Figure 20. Universal input wiring.

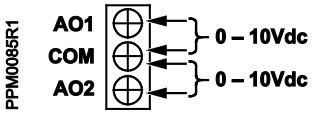


Figure 21. Analog output wiring.

Information in this publication is based on current specifications. The company reserves the right to make changes in specifications and models as design improvements are introduced. Other product or company names mentioned herein may be the trademarks of their respective owners. © 2014 Siemens Industry, Inc.

Siemens Industry, Inc.
Beijing Siemens Ceberus Electronics Ltd.
Infrastructure & Cities Sector
Building Technologies Division
No.1, Fengzhi East Road, Xibeiwang
Haidian District, 100094 BEIJING, China
Tel. +86 10 64768806
www.siemens.com/buildingtechnologies

Your feedback is important to us. If you have comments about this document, please send them to SBT_technical.editor@siemens.com