Power Xpert Multi-Point PXMP-MMXXXX-(AB) Meter Modules

For use with PXMP Power Xpert Multi-Point Meter.

⚠️ NOTICE

PLEASE REFER TO THE PXMP USER MANUAL MN150001EN FOR COMPLETE PXMP SYSTEM DETAIL.

The PXMP-MM Meter Modules are designed to be used with the PXMP-MB Meter Bases plugging into any of the ten module slots. The Meter Module performs the function of monitoring load current sensors and the mains voltages for electrical metering purposes in a PXMP Meter. There are six versions of the PXMP-MM Meter Module that should be matched to PXMP-MB Meter Base depending on the application and –AB suffix.

PXMP-MB & PXMP-MMXXXXX - 3-phase (no –AB)
PXMP-MB-AB & PXMP-MMXXXXX-AB - Single-phase

The six Meter Modules are also split by their load current sensor compatibility for 10 mA, 100 mA or 333 mV max secondary yielding the six versions:

- PXMP-MM10MA 10 mA, 3-phase
- PXMP-MM100MA 100 mA, 3-phase
- PXMP-MM333MV 333 mV, 3-phase
- PXMP-MM10MA – AB 10 mA, Single-phase
- PXMP-MM100MA – AB 100 mA, Single-phase
- PXMP-MM333MV – AB 333 mV, Single-phase

All of the Meter Modules have a common appearance but can be distinguished by their front label details:
- Yellow AB phase characters for Single-phase
- White ABC phase characters for 3-phase
- White background for “100 mA Sensor” description
- Gray background for “10 mA Sensor” description
- Red background for “333 mV Sensor” description

A detailed product identification label is on the left side of all Meter Modules, which may be obscured by adjacent modules once assembled into the Meter Base. This information can be viewed through the PXMP-MB configuration port.

⚠️ WARNING

BE SURE THAT ALL SYSTEM POWER IS OFF WHEN ASSEMBLING A PXMP METER INCLUDING THE INSTALLATION OF THE PXMP-MM METER MODULE AND ITS SENSOR CABLES.

To install a Meter Module into the PXMP-MB, first remove the metal slot cover on the Meter Base using a compatible Phillips head screwdriver for the screws at top/bottom. Remove the Meter Module from its packing and remove the black plastic retainers from the mounting screws. Align the Meter Module connectors and screw mounts with those of the Meter Base. Then push the Module into the Base and tighten down the mounting screws until the module housing is tight against the backplane.
Each Meter Module has the following LEDs:

- Com Green LED – Meter/Base com. activity
- Health Green LED – normal = ~ 1 Hz blink
- Pulse 2 Red LED – blink rate = energy usage group 2
- Six Forward Green and Reverse Red Load Power LED pairs, one pair per current load sensor
- Pulse 1 Red LED – blink rate = energy usage group 1

Each Meter Module supports six current load sensors using six white 2 X 2 connectors that interface with PXMP-SCXX sensor cables. Two conductors support the sensor signal while the other two support:

- An identification/tamper-detect circuit
- A Sensor Locator LED indicator
- Open circuit clamp and Alarm indicator

**Note:** All Current Sensors must be of the same type/range per Meter Group. Each Meter Module may support up to six Meter Groups for Single-phase loads or 2 groups for 3-phase loads. Groups, PT/CT ratios, and related system parameters are assigned using the PXMP Configuration software through the Meter Base configuration or Com ports.

It is important to only match compatible load Current Sensors for each Meter Module type:

- PXMP-MM10MA (-AB) supports direct connection to Eaton’s CS005, CS050, CS125, CS200 and CS400 Current Sensors with 10 mA maximum rated secondary using integral 4’ cables.
- PXMP-MM100MA (-AB) supports connection to Eaton’s PXMP-CS125, PXMP-CS250 and PXMP-CS400 Current Sensors with 100 mA maximum rated secondary. This solution requires use of an interposing PXMP-SCXX Sensor Cable.
- PXMP-MM333MV (-AB) supports the use of Generic 333 mV Current Sensors using both the PXMP-IM333MV Interface module and PXMP-SCXX sensor cable.

The PXMP-SCXX sensor cables come in lengths of 4, 6, 8 and 12 ft. (1.2, 1.8, 2.4 and 3.7 m) and may be extended one time using the PXMP-SCXX Cable Extension in lengths of 8 or 16 ft. (2.4 or 4.9 m).

To interface with 5 A type secondary current transformers, use the PXMP-MM10MA Meter Module with the interposing CS005 current sensor.

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**PXMP-MMXXXXX Specifications:**

**NOTICE**

**PLEASE REFER TO THE PXMP USER MANUAL MN150001EN FOR COMPLETE SYSTEM DETAILS AND SPECIFICATIONS.**

- PXMP-MB(-AB) Meter Base slot positions 1-10
- Each Meter Module can monitors six separate loads.
- Load sensor connections made using PXMP-SCXX Sensor Cables with matching 2 X 2 connectors.
- Load current frequency range 47-63 Hz
- Sensor signal ranges/Meter Module load (ohms)
  - PXMP-MM10MA(-AB) – 0-10 mA/66.6
  - PXMP-MM100MA(-AB) – 0-100 mA/14.5
  - PXMP-MM333MV(-AB) – 0-333 mV/50 K
- All loads must share common mains connection. The conditioned phase signals are bussed across the Meter Base slots to the Meter Modules.
- Housing NEMA 1, IP20 when installed in Meter Base and cables inserted into connectors
- Pollution Degree 2
- Operational Temperature range -20 to 70ºC (-4 to 158ºF)
- Storage Temperature range -45 to 85ºC (-49 to 185ºF)
- Elevation 0-9,849 ft. (0-3000 m)
- Humidity 5-95% noncondensing
- UL file # E185559, UL Standard UL61010-1
- CNL evaluation to CAN/C22.2 No 1010.1.92
- CE mark
- EMC EN61326
- Emissions conducted and radiated as part of PXMP Meter System.
  - FCC Part 15 Class B
  - CISPR 11 Class B
- Accuracy ANSI C12.20 Class 0.5% using Eaton Current Sensors:
  - CSXXX series
  - PXMP-CSXXX series
- All Current Sensors/Transformers used on PXMP Meter must meet Double/Reinforced Insulation 600 V CAT III.