

What's new in ION7400 series meter firmware v2.1.0

This document lists the new and updated features in the firmware version 2.1.0 (V002.001.000) for the PowerLogic™ ION7400 series meter.

Enhanced firmware upgrades

In addition to new feature support, firmware version 2.1.0 (V002.001.000) enhances meter performance through a more robust, and efficient memory architecture that significantly improves firmware upgrade speeds

Download “Upgrading devices to firmware v2.1.0” technical note at <https://www.schneider-electric.com/en/download/document/7EN72-0203/> for instructions on upgrading your meter firmware to version 2.1.0.

New time synchronization protocol - PTP

Precision Time Protocol (PTP V2) as defined by the IEEE 1588 Edition 2.0 standard is now available.

Your meter is configured to be compatible with typical PTP V2 supported systems. To implement PTP time synchronization, your meter must be connected to an Ethernet network with a valid PTP master and have `ETHERNET-PTP` selected as the *Time Sync Source*. Time-related information can be viewed and configured using ION Setup, the meter webpages or the display.

Secure webserver (HTTPS)

HTTPS uses transport layer security (TLS) encryption to provide authentication of the accessed website and protection of the exchanged data between the client and the server.

Your meter's webserver protocol is factory-set to `HTTPS WITH HTTP REDIRECT`. This setting redirects all HTTP requests to use the HTTPS web protocol. Your meter also ships with a self-signed Secure Sockets Layer (SSL) certificate. You can configure the webserver protocol or update the SSL certificate using ION Setup.

ION module updates

0-20 mA Analog I/O support

New meter firmware adds 0-20 mA support for the Analog I/O option module. Your PM89M0024 analog I/O option module must have firmware version 1.2.0 (V001.002.000) or later to use this feature. Refer to your meter's user manual for instructions on how to upgrade option modules.

High-speed ION module output register updates

In addition to standard (one-second) output register updates, the Analog Input, Counter and DNP Slave Export modules now provide high-speed (half-cycle) output register updates.

When configured for high-speed operation, the modules' output registers are updated at a maximum of one half-cycle of the measured frequency.

ION Arithmetic module

The Arithmetic module now supports up to 16 *Source* inputs.

The number of Arithmetic modules has been increased from 70 to 100.

Enhanced meter configuration and commissioning support

Additional configuration and commissioning support is now available using ION Setup.

Phasor Viewer

Toggle your meter's voltage and current polarity settings using the Setup Assistant *Phasor Viewer*. Use the `INVERT POLARITY` option to invert the voltage and current input polarities.

1. Start ION Setup.
2. Open the Setup Assistant for your meter.
3. Navigate to **Metering Setup > Phasor** and select *Phasor Viewer*.
4. Show or hide the Polarity Settings using the **Hide/Show Setup** control button.
5. Select the measurement channel to invert and then click **Apply to Meter**.

Alarm enable/disable

Enable or disable alarms using the ION Setup Alarming wizard.

1. Start ION Setup.
2. Open the Setup Assistant for your meter.
3. Navigate to **Alarming** and select the alarm type.
4. Select an alarm and click **Edit**
The alarm setup screen is displayed.
5. Use the **Enabled** or **Disabled** radio buttons to enable or disable the alarm.

Configuration Checklist

ION Setup performs a series of meter configuration tests and displays the results before exiting the Setup Assistant.

You can review results, make changes as needed and acknowledge any issues until the next configuration change is detected.

The device configuration test is enabled by default.

To turn off the meter configuration test:

1. Click **Tools > Options > Assistant**.
2. Click the **Configuration Checklist** checkbox.

Updated power quality (PQ) webpages

Your meter's default webpages have been updated to support the latest versions of EN50160, IEEE 519 and IEC 61000-4-30 power quality standards.

Enhanced logging capabilities

Configure your Data and Waveform recorders to capture pre- and post-event data to help analyze power quality events.

Refer to your user manual or ION Reference for additional information.

Optional upgrade for digital I/O option modules

Firmware version 1.2.0 (V001.002.000) for the PM89M2600 improves the Digital I/O option module's performance.

Additional information and resources

Visit www.schneider-electric.com to download the firmware upgrade files and related resources.

- The firmware upgrade files.
- The latest template files.
- The latest version of ION Setup to support the new features (You can also select **Help > Check for Updates** from within ION Setup).
- The latest user manual, datasheets and installation sheets.