

Schneider Electric Security Notification

Modicon M241 / M251 / M258 / LMC058

10 December 2024 (14 October 2025)

Overview

Schneider Electric is aware of a vulnerability in its [Modicon M241 / M251 / M258](#) and [Modicon LMC058](#) products.

The Modicon M241/M251/M258/LMC058 products are Programmable Logic Controllers for performance-demanding applications.

Failure to apply the Fix provided below may risk a denial of service and partial loss of Integrity of the controller, which could result in disruption operations.

October 2025 Update: A remediation is now available for Modicon M258 / LMC058.

Affected Products and Versions

Product	Version
Modicon Controllers M241 / M251	Versions prior to v5.2.11.29
Modicon Controllers M258 / LMC058	Versions prior to v5.0.4.19

Vulnerability Details

CVE ID: **CVE-2024-11737**

CVSS v3.1 Base Score 9.8 | Critical | CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

CVSS v4.0 Base Score 9.3 | Critical | CVSS:4.0/AV:N/AC:L/AT:N/PR:N/UI:N/VC:H/VI:H/VA:H/SC:N/SI:N/SA:N

CWE-20: Improper Input Validation vulnerability exists that could lead to a denial of service and a loss of confidentiality, integrity of the controller when an unauthenticated crafted Modbus packet is sent to the device.

The severity of vulnerabilities was calculated using the CVSS Base metrics for 4.0 ([CVSS v4.0](#)). CVSS v3.1 will be still evaluated until the adoption of CVSS v4.0 by the industry. The severity was calculated without incorporating the Temporal and Environmental metrics. Schneider Electric recommends that customers score the CVSS Environmental metrics, which are specific to end-user organizations, and consider factors such as the presence of mitigations in that environment. Environmental metrics may refine the relative severity posed by the vulnerabilities described in this document within a customer's environment.

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Remediation

Affected Product & Version	Remediation
Modicon M241 <i>Version prior to v5.2.11.29</i> Modicon M251 <i>Version prior to v5.2.11.29</i>	Modicon M241/M251 Firmware version 5.2.11.29 includes a fix for this vulnerability and can be updated through the Schneider Electric Software Update (SESU) application that is part of EcoStruxure™ Machine Expert: https://www.se.com/ww/en/product-range/2226-ecostruxure-machine-expert-software/ By using Controller Assistant update Modicon Controller M241/M251 to the latest Firmware and perform reboot.
Modicon M258 / LMC058 <i>Version prior to v5.0.4.19</i>	Modicon M258/LMC058 Firmware version 5.0.4.19 includes a fix for this vulnerability and can be downloaded here: https://www.se.com/ww/en/product-range/2730-modicon-m258-compact-plc-for-machine-automation/#software-and-firmware By using Controller Assistant from EcoStruxure™ Machine Expert update Modicon Controller M258/LMC058 and perform reboot.

Customers should use appropriate patching methodologies when applying these patches to their systems. We strongly recommend the use of back-ups and evaluating the impact of these patches in a Test and Development environment or on an offline infrastructure. Contact Schneider Electric's [Customer Care Center](#) if you need assistance removing a patch.

If customers choose not to apply the remediation provided above, they should immediately apply the following mitigations to reduce the risk of exploit:

Mitigations

Affected Product & Version	Mitigations
Modicon M241 / M251 <i>Versions prior to v5.2.11.29</i> Modicon M258 / LMC058 <i>Versions prior to v5.0.4.19</i>	<ul style="list-style-type: none">• Use controllers and devices only in a protected environment to minimize network exposure and ensure that they are not accessible from public internet or untrusted networks.• Filter ports and IP through the embedded firewall.• Setup network segmentation and implement a firewall to block all unauthorized access to port 502/TCP.• Disable all unused protocols (default configuration).

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- For more details refer to “Cybersecurity Guidelines for EcoStruxure Machine Expert, Modicon and PacDrive Controllers and Associated Equipment User Guide”:

<https://www.se.com/ww/en/download/document/EIO0000004242/>

To ensure you are informed of all updates, including details on affected products and remediation plans, subscribe to Schneider Electric’s security notification service here:

<https://www.se.com/en/work/support/cybersecurity/security-notifications.jsp>

General Security Recommendations

We strongly recommend the following industry cybersecurity best practices.

- Locate control and safety system networks and remote devices behind firewalls and isolate them from the business network.
- Install physical controls so no unauthorized personnel can access your industrial control and safety systems, components, peripheral equipment, and networks.
- Place all controllers in locked cabinets and never leave them in the “Program” mode.
- Never connect programming software to any network other than the network intended for that device.
- Scan all methods of mobile data exchange with the isolated network such as CDs, USB drives, etc. before use in the terminals or any node connected to these networks.
- Never allow mobile devices that have connected to any other network besides the intended network to connect to the safety or control networks without proper sanitation.
- Minimize network exposure for all control system devices and systems and ensure that they are not accessible from the Internet.
- When remote access is required, use secure methods, such as Virtual Private Networks (VPNs). Recognize that VPNs may have vulnerabilities and should be updated to the most current version available. Also, understand that VPNs are only as secure as the connected devices.

For more information refer to the Schneider Electric [Recommended Cybersecurity Best Practices](#) document.

Acknowledgements

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CVE	Researcher
CVE-2024-11737	Wooyeon Jo (Virginia Commonwealth University) Irfan Ahmed (Virginia Commonwealth University)

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For More Information

This document provides an overview of the identified vulnerability or vulnerabilities and actions required to mitigate. For more details and assistance on how to protect your installation, contact your local Schneider Electric representative or Schneider Electric Industrial Cybersecurity Services:

<https://www.se.com/ww/en/work/solutions/cybersecurity/>. These organizations will be fully aware of this situation and can support you through the process.

For further information related to cybersecurity in Schneider Electric's products, visit the company's cybersecurity support portal page: <https://www.se.com/ww/en/work/support/cybersecurity/overview.jsp>

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Schneider's purpose is to **create Impact** by empowering all **to make the most of our energy and resources**, bridging progress and sustainability for all. We call this Life Is On.

Our mission is to be the trusted partner in **Sustainability and Efficiency**.

We are a **global industrial technology leader** bringing world-leading expertise in electrification, automation and digitization to smart **industries**, resilient **infrastructure**, future-proof **data centers**, intelligent **buildings**, and intuitive **homes**. Anchored by our deep domain expertise, we provide integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation, software and services, delivering digital twins to enable profitable growth **for our customers**.

We are a **people company** with an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders. We embrace **diversity and inclusion** in everything we do, guided by our meaningful purpose of a **sustainable future for all**.

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Revision Control:

Version 1.0.0 <i>10 December 2024</i>	Original Release
Version 2.0.0 <i>11 March 2025</i>	A remediation is now available for Modicon M241 / M251
Version 3.0.0 <i>14 October 2025</i>	A remediation is now available for Modicon M258 / LMC058