

Nymi Band™ 4 (ANSI) for Hazardous Locations

Alignment with ANSI/ISA 12.12.03-2011 and
IEC TS 60079-48:2023

This executive summary is intended for pharmaceutical manufacturers and process industries evaluating the Nymi Band™ for use in hazardous locations where flammable gases, vapors, or combustible dusts may be present. It explains how the Nymi Band 4 (ANSI) hardware variant aligns with ANSI/ISA 12.12.03-2011 and IEC TS 60079-48:2023 requirements, and clarifies certification boundaries.



About ANSI/ISA 12.12.03-2011 and IEC TS 60079-48:2023

ANSI/ISA 12.12.03-2011 establishes requirements for electrically powered portable and transportable equipment intended for use in hazardous locations. The standard specifies design, construction, and testing criteria to reduce the risk of ignition from electrical equipment in environments where flammable gases, vapors, or combustible dusts may be present.

IEC TS 60079-48:2023 is the international counterpart to ANSI/ISA 12.12.03, addressing portable and transportable equipment for use in explosive atmospheres under the IEC regulatory framework. Together, the two standards cover hazardous location requirements across a broad range of global operating environments.

Nymi Band 4 (ANSI) and ANSI/ISA 12.12.03-2011 and IEC TS 60079-48:2023

To support deployment in hazardous locations that are subject to ANSI 12.12.03-2011 or IEC TS 60079-48:2023, Nymi has developed a hardware variant of the Nymi Band 4 with the motor physically removed and other protections put in place.

Why is the motor removed?

ANSI/ISA 12.12.03-2011 and IEC TS 60079-48:2023 place restrictions on the types of motors permitted in covered equipment. The motor in the standard Nymi Band does not meet these restrictions. Physical removal eliminates this concern entirely.

How do I identify the Nymi Band 4 (ANSI) variant?

Nymi Band 4 (ANSI) includes a permanent visual marking that clearly distinguishes it from the standard Nymi Band. This enables users, Process Safety Engineers, and EHS personnel to positively confirm the motor has been removed and to prevent deployment errors.

The permanent visual marking looks like a star icon, which is lightly etched in the metal bezel to the left of the fingerprint sensor. The engraving is permanent, and does not impact cleaning recommendations. Nymi Band 4 (ANSI) is cleaned in the same manner as the standard Nymi Band.

In addition to a clear visual marking, the Nymi Band 4 (ANSI) has a different serial number that distinguishes it from other Nymi Bands in your inventory. The serial number is physically printed on the back of the band next to the other regulatory markings.

What is the functional impact of removing the motor?

With the motor removed, the Nymi Band 4 (ANSI) relies on visual-only feedback via its display. Users will not receive haptic notifications. All other functionality remains the same and are not impacted, including biometric authentication, BLE, and NFC communication capabilities.



Regulatory Clarifications

Before deploying the Nymi Band 4 (ANSI) variant in a hazardous location, customers must complete a safety evaluation.

- Notice: The Nymi Band 4 (ANSI) is not ATEX certified.
- Nymi will provide technical documentation with evidence demonstrating how the Nymi Band 4 (ANSI) meets the requirements of ANSI/ISA 12.12.03-2011 and IEC TS 60079-48:2023.
- It is the customer's responsibility—typically through Process Safety Engineers, EHS, Quality, and Compliance teams—to review the standard and all supporting evidence to determine the suitability of the Nymi Band for their specific environments and applications.

Nymi supports customer-led risk assessments and validation activities. Final determination of suitability for deployment in hazardous locations remains the responsibility of the customer.

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