

August 21, 2026

Press Release**Turning DALI-2 expertise into market-ready products****Kendrion 3T empowers manufacturers to master DALI-2**

As intelligent lighting and building automation advance, DALI-2 has solidified its position as the internationally recognized reference framework for interoperable lighting control. While the DALI protocol itself appears straightforward, developing devices that reliably fulfill the IEC 62386 standard and attain DALI-2 certification entails considerable technical challenges. Kendrion 3T partners with manufacturers throughout all phases of development, optimizing procedures, minimizing risks, and expediting their path toward certification.

DALI-2 is the certification program based on the latest version of the DALI (Digital Addressable Lighting Interface) protocol. It focuses on enabling interoperability among lighting systems, in which luminaires, LED drivers, sensors, and application controllers from different manufacturers can communicate flawlessly. For many OEMs and lighting manufacturers, DALI-2 certification has become an important market expectation. Unlike the original DALI protocol, which allowed manufacturers to self-certify their products, DALI-2 introduced independent certification through the DALI Alliance. As a result, DALI-2 certification provides manufacturers with access to open ecosystems, simplifies system integration, and gives customers greater confidence that certified products will perform reliably under real-world operating conditions.

DALI-2: Why simple communication requires sophisticated engineering

To achieve DALI-2 certification, devices must meet demanding requirements for protocol compliance, timing, and interoperability. The DALI bus, the shared two-wire communication network connecting all DALI devices, operates at a modest data rate of 1200 Baud. Despite transmitting data at a fraction of the speed of most modern industrial communication systems, ensuring reliable integration into multi-vendor lighting and building automation systems is far more challenging than it initially appears. DALI-2 certification demands exceptional timing precision; robust protocol handling; support for complex edge cases; electrical variations; and deterministic firmware, all of which affect reliability. In multi-master configurations, timing tolerances are tightened to ± 16 microseconds, requiring coordinated hardware and software performance under varying conditions.

From architecture to certification: End-to-end DALI-2 aligned development

Kendrion 3T combines embedded software engineering, electronics design, reusable IP, and automated regression testing, drawing on extensive experience in DALI-2 development.

“DALI-2 may seem straightforward, but implementing its basic functionality is only the beginning,” explains Jasper Keuning, Technology Manager at Kendrion 3T. “Developing a reliable, certifiable product requires careful attention to electrical behavior, timing, interoperability, and edge cases - complexities that often become apparent only through practical experience. We help clients manage these challenges

and accelerate the development of robust DALI-2 products that perform reliably in real-world applications.”

Kendrion 3T’s engineering team assists clients from system architecture and firmware creation to pre-compliance testing and certification support, enabling manufacturers to detect issues early, minimize development cycles, and streamline product readiness for certification. To ensure ongoing compliance, Kendrion 3T has developed an automated regression testing system that simulates a wide range of operating conditions and statistically assesses all parameters specified by the DALI standard.

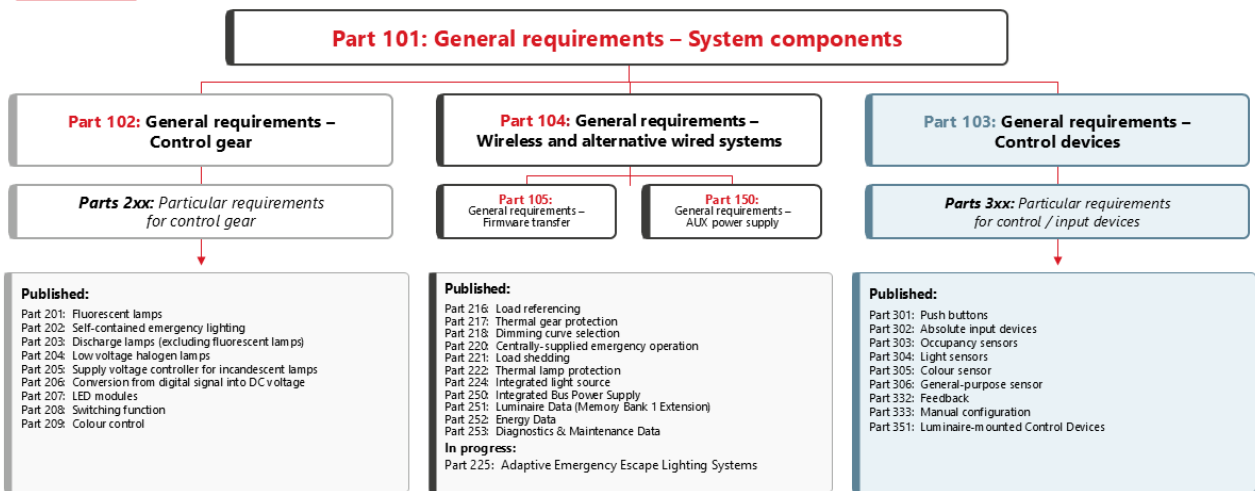
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Images (press kit available graphics with and without company logo)



DALI-2-development.png: Kendrion 3T’s end-to-end development support for DALI-2 devices.
Image: *Kendrion*

IEC 62386 standard



The DALI Alliance creates test specifications based on individual parts of IEC 62386, as well as DiA Specifications, enabling DALI-2, D4i and DALI+ certification

Source: <https://www.dali-alliance.org/>

iec_62386_standard-DALI.png: Overview of the IEC 62386 standard series and the requirements relevant to DALI-2 certification. Source: DALI Alliance; graphic adapted by Kendrion



Regression-test-tool.png: Kendrion 3T's automated regression testing and development tool. The system simulates varying voltages and currents, evaluates device behavior, and analyzes DALI-defined parameters to support reliable, certifiable device development.

Image: *Kendrion*

About Kendrion

Innovative solutions for tomorrow - built on precision, safety, and motion.

Kendrion is shaping the future with high-precision brakes, electromagnetic components, fluid technology, control systems, and embedded systems. Our solutions offer precise control, maximum safety, and smooth motion across a wide range of applications – from machinery and robotics to high-end technology, automation, medical and energy sectors, mobility, and process industries.

With a broad portfolio of off-the-shelf products and a project-based approach, we work closely with our customers to deliver customized solutions tailored to their needs. By leveraging our deep technical expertise across multiple technologies and the flexibility to integrate them intelligently, we provide systems that are ready for tomorrow's challenges. Kendrion's deep engineering knowledge and cross-technology capabilities make us a trusted partner for creating innovative and reliable solutions across industries.

Rooted in Germany, headquartered in the Netherlands, and listed on Euronext Amsterdam, Kendrion's expertise spans Europe, the Americas, and Asia. For more than a century, we've engineered precision parts for the world's leading innovators in industrial applications, making us a trusted partner for creating reliable, cutting-edge solutions across industries.

About Kendrion 3T

Since 1 July 2026, 3T B.V. has operated under the name Kendrion 3T, reflecting its longstanding integration within the Kendrion Group. Based in the Netherlands, with locations in Enschede, Eindhoven and Drachten, Kendrion 3T is a development partner for customer-specific electronics and embedded systems. Kendrion 3T's engineers and specialists combine over 40 years of experience in electronics design, embedded software, model-driven development and functional testing. The company supports customers from co-development and prototyping through testing, qualified production and lifecycle support.

<https://www.kendrion.com/en/>

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Deeplinks:

<https://www.kendrion.com/en/products-services/electronics-design-service/dali-2-development>

<https://www.kendrion.com/en/products-services/electronics-design-service>

Meta-Title: DALI-2 development and certification support | Kendrion 3T

Meta-Description: Kendrion 3T supports manufacturers with DALI-2 architecture, embedded software, testing and certification support for reliable IEC 62386 devices.

Download-Area: www.koehler-partner.de/pressezentrum/kendrion

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