

DSL DALI BMS Gateway

Key Features

- Interfaces a Building Management System to a DALI lighting network. Integrates lighting control with other building services and data sources to achieve the best efficiency, user experience, and system maintainability.
- Royalty-free Niagara drivers provide all DALI network configuration and device discovery capabilities. All operations are done in the BMS environment; separate development tools and skills for lighting control are not needed.
- Pre-engineered software modules for common lighting control solutions are provided.
- Up to 25 DALI networks may be controlled by one JACE controller.
- Integrated DALI PSU simplifies wiring, reduces panel space requirements and improves efficiency.
- USB port (virtual COM port) permits use from any PC running Niagara for development and diagnosis.
- 3 kV isolation between BMS and DALI network.



The DaliSmartLink Difference

- **Most expandable:** The powerful on-board processor autonomously handles addressing, discovery, polling and configuration of devices on the DALI network. BMS communication is minimised and is never stalled for DALI operations to complete, allowing up to 25 DALI networks – that's 1600 DALI devices – to be controlled from one BMS with minimum CPU usage.
- **Most trustworthy:** When the BMS is not available, the DSL-Master becomes a stand-alone fall-back lighting controller: lights continue to obey presence and light sensors, switches and scene plates according to user-defined behaviour.
- **Smallest and simplest:** DSL-Master is the only DALI gateway to integrate a DALI power supply, saving space, simplifying wiring, increasing efficiency and signal quality. Simply connect mains, DALI and RS485. The only DALI solution in 36mm of rail! All terminals are duplicated for easy daisy-chaining.
- **Coolest and most reliable:** Other DALI installations use a separate dumb bus power supply which is shorted out to communicate, generating heat in the panel and reducing component lifetime of the PSU and remote devices. An integrated intelligent power supply saves energy and wear by actively assisting communication, improving DALI signal quality on long lines or with high-resistance joints. The DSL-Master runs cooler than any other DALI power supply.
- **Most robust:** The DALI, mains, USB and RS485 terminals are galvanically or optically isolated from each other, giving the best protection for your BMS. This is essential as DALI is not wired as SELV. The DALI power supply can tolerate hard or partial shorts of the DALI network indefinitely.

Technical Data

Mains Input

Mains supply 100 V AC – 240 V AC, 50 Hz – 60 Hz. 13 VA. Maximum inrush 1 A.

DALI Output

Cabling 0.5 mm² – 1.5 mm² (DALI cables must be mains rated)

Bus power supplied Floating 20.3 V DC, 250 mA limit, indefinite short protected, 3 kV mains isolation

Data Connections (USB/RS-485)

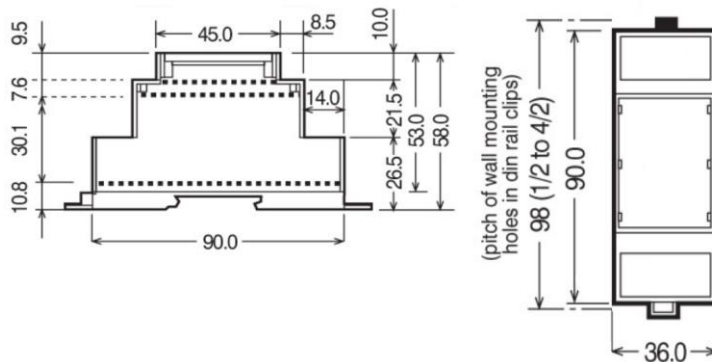
USB High-speed USB 2.0, Mini-B socket. Virtual COM Port and Mass Storage modes.

RS-485 Unterminated half-duplex two-wire bus plus 0 V connection. 255 slave addresses. 32 devices maximum per bus. Linear topology recommended, 100 m max.

Isolation (USB/485) 3 kV isolation from mains. 500 V isolation from DALI bus.

Mechanical

Housing ABS DIN-rail case 36 mm wide (UL 94 HB) IP30



Environmental

Operating 0 °C to 50 °C, non-condensing humidity

Storage -20 °C to 85 °C, non-condensing humidity

Standards

EMC EN 61326 (Electromagnetic Compatibility)
EN 55024 (Information Technology Immunity)

Safety EN 60950-1:2006 + A12:2011 (Information Technology Equipment Safety)
Class II Product: Must be mounted in an external enclosure providing mechanical and electrical protection.

Internally fused. Should be equipped with an external means of isolating power.

Environmental WEEE, RoHS, Conflict Minerals.