OVERVIEW

The DALION lighting controller allows bidirectional communication between DALI (Digital Addressable Lightning Interface) networks and BACnet systems. It integrates many functionalities to ease the installation of DALI lighting on the BACnet network. Commissioning can also be performed across all your electronic devices, thanks to its user-friendly and responsive web interface.

KEY FEATURES

✓ Equipped with four DALI channels. It can control up to 256 DALI drivers. This is 64 drivers with 16 groups and 16 scenes per channel.
✓ Can integrate up to 32 DALI-2 input devices (control devices) per DALI channel. Light sensors, occupancy sensors and buttons can be configured via the web interface and made accessible to BACnet.
✓ DALI channels, groups, lamps, scenes and inputs are accessible through BACnet standard objects such as: Analog Output, Analog Input, Multi-state Output and Binary Input.
✓ Weekly time clock schedules.
✓ A responsive web interface allows configuring and commissioning, therefore no special software is needed.
✓ BACnet/IP protocol.
✓ Integrated two-port Ethernet switch for daisy chain topology.
✓ Compact design with DIN rail mount.
✓ Integrated diagnosis.

RESPONSIVE WEB INTERFACE

The web user interface adapts to all screen sizes. It allows modifying system settings as well as performing the DALI devices commissioning.

TUNABLE WHITE READY

Adjustment of the light from warm white to daylight thanks to the compatibility with DALI Type 8 (DT8) drivers.

DALI-2 INPUT DEVICES

Support for the integration of DALI-2 sensors and buttons.
**DALI**

✓ DALI commissioning and configuration via web interface

✓ Support for IEC 62386 DALI devices:
  - Fluorescent lamps – 201 (device type 0)
  - DC voltage converter – 206 (device type 5)
  - LED modules – 207 (device type 6)
  - Switching function – 208 (device type 7)
  - Colour control (Tc only) – 209 (DT8)
  - Input devices – Push buttons – 301
  - Input devices – Occupancy sensor – 303
  - Input devices – Light sensor – 304

✓ Integrated DALI packet analyzer

**BACNET**

✓ Uses the BACnet/IP protocol

✓ Supports BACnet COV (Change of Value) services

✓ Allows controlling DALI ballasts and drivers individually, by group, or by channel

✓ Uses Analog Input objects for the feedback of lamps, groups, and channels

✓ Uses Analog Output objects for the control of lamps, groups, and channels

✓ Uses Multi-State Output objects to recall, store and erase DALI scenes

✓ Uses Analog Input objects for the light sensors

✓ Uses Binary Input objects for the occupancy sensors

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Power supply</th>
<th>24 VAC 50/60 Hz or 24 VDC</th>
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</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>157 x 86 x 59 mm, 6.181&quot; x 3.386&quot; x 2.323&quot; (L x W x H)</td>
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<tr>
<td>Fixation</td>
<td>DIN rail</td>
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<tr>
<td>Enclosure material</td>
<td>UL 94 V-0</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0 °C to 45 °C (32 °F to 113 °F)</td>
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<tr>
<td>DALI channels</td>
<td>4</td>
</tr>
<tr>
<td>Ethernet interface</td>
<td>2, RJ45 port, 100BASE-T, BACnet/IP, HTTP</td>
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<tr>
<td>Firmware</td>
<td>Upgradable firmware</td>
</tr>
</tbody>
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**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Model Description</th>
</tr>
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<tbody>
<tr>
<td>DALION-4</td>
<td>BACnet/IP - DALI, DALION controller with 4 DALI channels</td>
</tr>
</tbody>
</table>
DIMENSION

The dimensions are 157 x 86 x 59 mm, 6.181” x 3.386” x 2.323” (L x W x H).

CONNECTORS

1. DALI Channel 1 connector (5.08 mm [0.200”])
   2 position pluggable terminal blocks header.
2. DALI Channel 2 connector (5.08 mm [0.200”])
   2 position pluggable terminal blocks header.
3. DALI Channel 3 connector (5.08 mm [0.200”])
   2 position pluggable terminal blocks header.
4. DALI Channel 4 connector (5.08 mm [0.200”])
   2 position pluggable terminal blocks header.
5. 24 VAC/VDC power supply connector (5.08 mm [0.200”])
   2 position pluggable terminal blocks header.
6. First Ethernet RJ45 connector
   Connect the LAN Ethernet network to this port.
7. Second Ethernet RJ45 connector
   Switch port with the first Ethernet connector.
8. USB host connector (USB 2.0 – A)
   For connecting a USB accessory.
9. USB device connector (USB 2.0 - Mini-B)
   For the USB console.
10. RS-485 connector (5.08mm [0.200”])
    3 position pluggable terminal blocks header.
11. Power indicator LED
    This LED is on when the DALION is powered.
12. Status indicator LED
    This LED blinks to indicate the status of the DALION.
13. Reset IP button
    Pressing this button for four (4) seconds will reset the IP configurations to the factory default value.
14. DALI Channel 1 LED
    Activity LED for the DALI channel 1.
15. DALI Channel 2 LED
    Activity LED for the DALI channel 2.
16. DALI Channel 3 LED
    Activity LED for the DALI channel 3.
17. DALI Channel 4 LED
    Activity LED for the DALI channel 4.
18. Button 1
    Pressing this button sends 0% to all lamps.
    Pressing this button sends 100% to all lamps.
20. RS-485 LED
    Activity LED for the RS-485.

DALI WIRING

The bus wiring must be connected in a star topology, a linear topology, or a mixture of the two. Wiring must not be carried out in a ring structure. The two wires that serve as the bus must be located in the same cable or cable conduit. In the cable or cable conduit, the two wires must be side by side to avoid unintentional coupling to other signals.