

## 8-Subnet DALI Controller (478)

The 478 DALI Controller can control up to 8 DALI channels of up to 64 devices. The 478 is for controlling ballasts and drivers when device addressing is not required.

This reduces commissioning and maintenance cost, as the load devices can be simply replaced. The flexible control inputs support multiple protocols, by routing an input address or group to its corresponding subnet output.

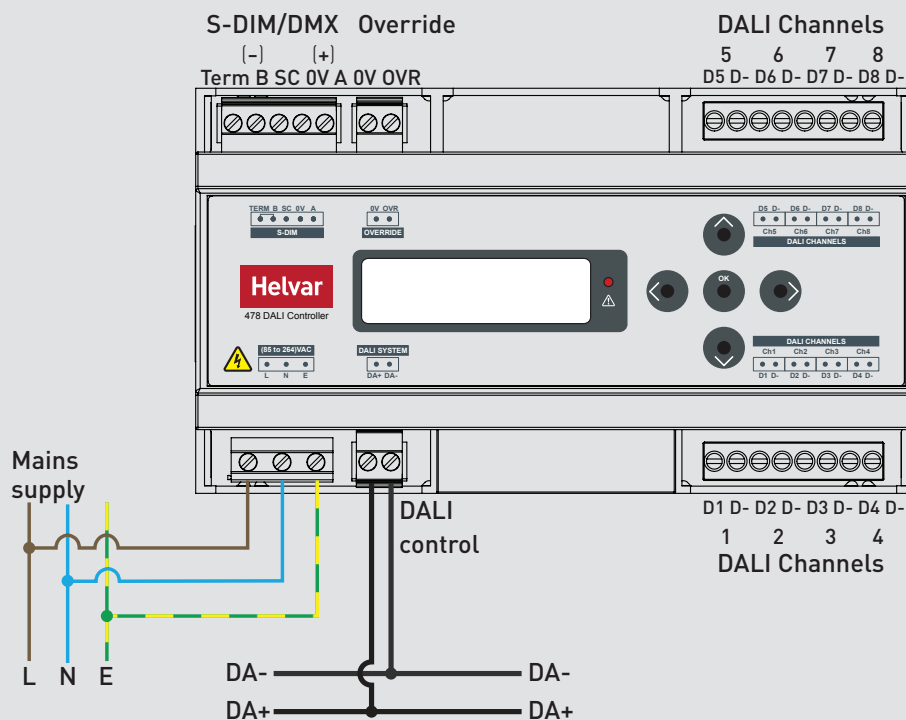
Connect the Controller to a DALI network, and configure using Helvar's Designer or Toolbox software.

### Key Features

- Control using DALI Broadcast messages on each subnet
- Integral DALI Power Supply – supports up to 512 DALI devices (8 × 64 devices: 2 mA per driver/ballast)
- Lamp failure reporting per subnet
- Lower commission costs – device addressing/grouping on subnet not required
- DALI / S-DIM / DMX control inputs



### Connections



### Input / Output terminals

#### S-DIM / DMX

- A: (Data +)
- B: (Data -)
- 0V: (Data reference)
- SC: (Screen: not data reference)
- Term: (Link to B for termination)

#### Override

- OVR  $V_{in} < 1.5 V$ ;  $I_{short} = 1 mA$
- 0 V 0 V (return)

#### DALI channels (1-8)

- DA+ D1;D2;D3;D4;D5;D6;D7;D8
- DA- D-

Note: Max. 64 devices per channel

#### Mains supply (AC)

- L (Live)
- N (Neutral)
- E (Earth / Ground): must be connected

#### DALI system

- DA+
- DA -

## Technical Data

### Connections

<b>Mains supply:</b>	Solid core: up to 4 mm <sup>2</sup> Stranded: 2.5 mm <sup>2</sup>
<b>DALI:</b>	Wire size: 0.5 mm <sup>2</sup> – 2.5 mm <sup>2</sup> Recommended: 1.0 mm <sup>2</sup> – 1.5 mm <sup>2</sup> Max. length: 300 m @ 1.5 mm <sup>2</sup>
<b>S-DIM/DMX:</b>	0.22 mm <sup>2</sup> – 1.5 mm <sup>2</sup> low-loss RS485 type (multistranded, twisted and shielded)
<b>Cable rating:</b>	All cables must be mains rated

### Power supply

<b>Mains supply voltage:</b>	85 VAC – 264 VAC, 45 Hz – 65 Hz
<b>External MCB protection:</b>	Max. 6 A The external power supply must be protected.
<b>Isolation:</b>	4 kV between mains supply; DALI outputs; DALI system; and S-DIM/Override connectors. DALI channels are not isolated from each other.

**Standby power:** No Standby Mode – DALI power provided for DALI channels.

**Max. total losses:** 7 W

**DALI consumption:** 2 mA (DALI system input)

### Inputs

<b>Control:</b>	DALI; S-DIM or DMX
<b>Override (OVR):</b>	Wired override input
<b>User interface:</b>	5 push buttons for configuration

### Outputs

<b>DALI:</b>	8 output channels
<b>Max. load per output:</b>	128 mA (64 devices)

### Operating Conditions

<b>Ambient Temperature:</b>	0 °C to +40 °C
<b>Relative Humidity:</b>	Max. 90 %, non-condensing
<b>Storage Temperature:</b>	-10 °C to +70 °C

### Conformity and Standards

<b>EMC Emission:</b>	EN 61000-6-3
<b>EMC Immunity:</b>	EN 61547
<b>Safety:</b>	EN 60950-1
<b>Environment:</b>	Complies with WEEE and RoHS directives
<b>DALI:</b>	EN 62386:2009 edition 1

### Configuration software

<b>Designer version</b>	4.2.18 or higher
<b>Toolbox version:</b>	2.3.3 or higher

### Mechanical Data

<b>Material:</b>	Polycarbonate/ABS mix, UL94 V-0
<b>IP rating:</b>	IP 00 (For installation in a restricted access location only)
<b>Mounting:</b>	DIN rail mounting
<b>Weight:</b>	250 g
<b>Module dimensions:</b>	9 module width: 160 mm × 90 mm × 62 mm

