digidim

Helvar

478 8-Subnet DALI Controller

CE

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

This reduces commissioning and maintenance costs, 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.
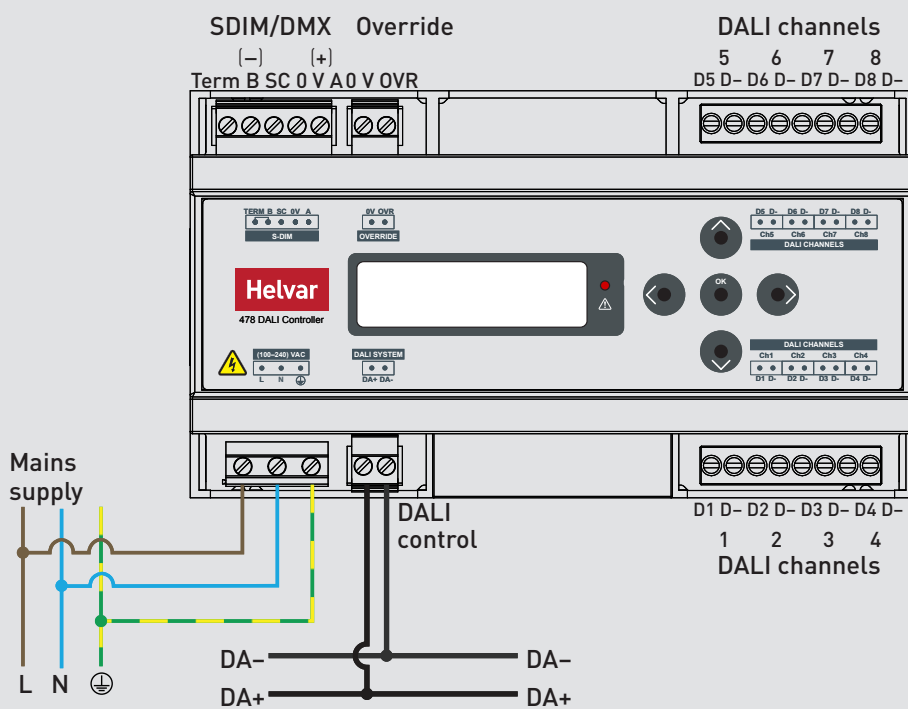
Connect the Controller to a DALI network, and configure using Helvar's Designer or Toolbox software.

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/SDIM/DMX control inputs.

Connections

Input/Output terminals

SDIM/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
⏚	Protective earth must be connected.

DALI system

DA+

DA–

Technical Data

Connections

Mains supply: Solid core: up to 4 mm²
Stranded: 2.5 mm²

DALI: Wire section: 0.5 mm² – 2.5 mm²
Max. length: 300 m @ 1.5 mm²

SDIM/DMX: 0.22 mm² – 1.5 mm² low-loss RS485 type (multistranded, twisted and shielded)

Cable rating: Mains, relay and DALI cables (including outputs) must be mains rated.

Power supply

Mains supply: 100 VAC – 240 VAC (nominal)
85 VAC – 264 VAC (absolute)
45 Hz – 65 Hz

External MCB protection: Max. 6 A
The external power supply must be protected.

Isolation: Between mains supply, DALI outputs, DALI system, and SDIM/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

Control: DALI, SDIM or DMX

Override (OVR): Wired override input

User interface: 5 push buttons for configuration

Outputs

DALI: 8 output channels

Max. load per output: 128 mA (up to 64 devices, limited by current consumption)

Mechanical data

Material: Polycarbonate/ABS mix, UL94 V-0

IP rating: IP 00 (For installation in a restricted access location only.)

Mounting: DIN rail mounting

Weight: 250 g

Module dimensions: 9 module width: 160 mm × 90 mm × 62 mm

Operating conditions

Ambient temperature: 0 °C to +40 °C

Relative humidity: Max. 90 %, noncondensing

Storage temperature: −10 °C to +70 °C

Conformity and standards

DALI: EN 62386

SDIM: Helvar SDIM protocol

DMX: DMX512-A protocol

EMC emission: EN 55015

EMC immunity: EN 61547

Safety: EN 61347-2-11

Environment: Complies with WEEE and RoHS directives.

Software compatibility

Designer: 4.2.18 or higher

Toolbox: 2.3.3 or higher

Dimensions (mm)