Transistor Dimmer (454)

The DIN-rail mounted 454 is a four-channel transistor dimmer. It can operate in one of two modes: leading edge or trailing edge. All four channels operate in the same selected mode, with each channel capable of controlling 2.2 A.

It supports capacitive and resistive loads, and it can be connected directly to mains-voltage lamps and to low-voltage lamps with electronic transformers. The 454 is not for use with inductive loads.

Each channel of the dimmer has both current and thermal protection.

The dimmer features an LED segment display. There is a push button user interface for monitoring, manual configuration and control purposes.

Key Features

- Trailing-edge or leading-edge dimming

- LED segment and push buttons for manual configuration, including the following output types: linear, square, S-law, DALI logarithmic, LED curve, and DALI linear

- Capable of handling resistive and capacitive loads

- Manual wired override input

- Voltage and frequency compensation

- Overcurrent and temperature protection included

- Power-on to last level or to user-defined level

Additional Features

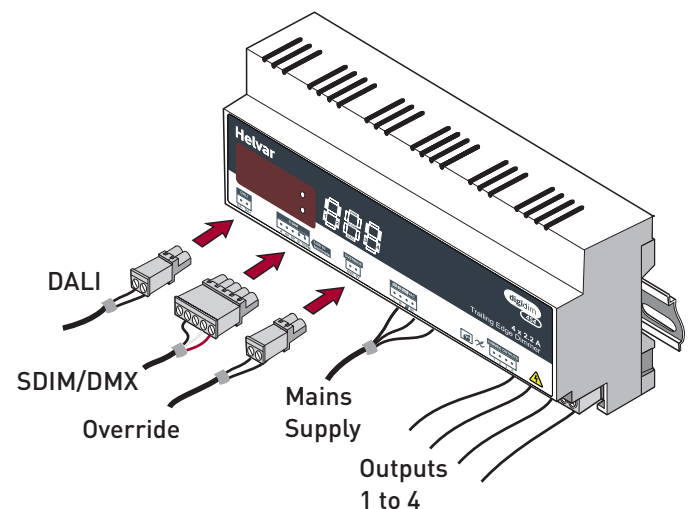The following features may be accessed using the Toolbox or Designer software:

- Max./Min. levels, fade times, scenes and groups

- System failure level/ignore

Output	Output Type	Additional Information
ᵗ0	Non-Dim	Switched on and off only
ᵗ1	Linear	Optimised for incandescent
ᵗ2	Square	Optimised for incandescent
ᵗ3	S-law	Optimised for incandescent
ᵗ4	DALI logarithmic	IEC 62386-205
ᵗ5*	LED curve	Optimised for LED
ᵗ6	DALI linear	IEC 62386-205

Note:

* ᵗ5 is the default output type.

Connections

DALI

SDIM/DMX

Override

Mains Supply

Outputs 1 to 4

Technical Data

Connections

Mains:
Solid core: up to 4 mm²
Stranded: 2.5 mm²
Note: Functional earth connection used for DALI/SDIM/DMX screens only.

DALI:
0.5 mm² – 1.5 mm²,
max. 300 m @ 1.5 mm²

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

Power

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

Power consumption: 2.3 W (excluding loads)

Load current:
2.2 A (2.2 A × 230 V = 500 W)
4 outputs (4 × 500 W = 2 kW)

Heat dissipation: 11 W with maximum load (resistive)

DALI consumption: 2 mA

External protection: 10 A Type C MCB maximum. The external supply must be protected.

Inputs

Communication: DALI, SDIM and DMX

Override: Switched input

User interface: 2 push buttons for configuration

Mechanical data

Dimensions: 160 mm × 91 mm × 62 mm

Housing: DIN-rail case; 9 module width

Material: Polycarbonate/ABS mix, UL94 V–0

Mounting: DIN rail mounting

Weight: 250 g

IP code: 30 (IP 00 at terminals)

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:
DALI standard IEC 62386, with Helvar additions

SDIM: Helvar SDIM protocol

DMX:
DMX512-A protocol
(max. refresh rate: 33 Hz)

EMC emission: EN 55015

EMC immunity: EN 61547

Safety: EN 60950

Environment:
Complies with WEEE and RoHS directives.

Dimensions (mm)