

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, SSL 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

Installation Notes

- For installation in a restricted access location only.
- Isolate the mains supply before installation.
- The external mains supply must be protected. It is recommended that a 10 A Type C MCB is used.
- All DALI and mains cabling must be 230 V mains rated.
- Do not connect DALI and SDIM/DMX at the same time.
- Install the unit horizontally to allow for heat dissipation.
- Any enclosure must provide adequate cooling ventilation.



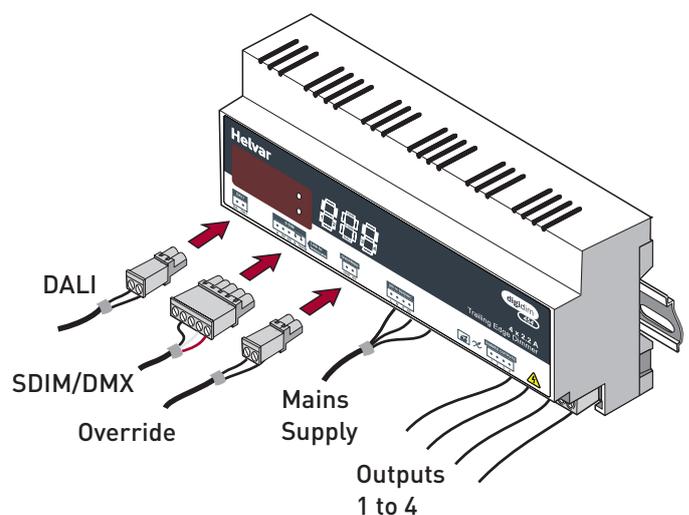
Output Table	Dimming Curve	Control Protocol	
⌚ 0	Non-Dim	All	
⌚ 1	Linear	SDIM/DMX	*
⌚ 2	Square	SDIM/DMX	*
⌚ 3	S-law	SDIM/DMX	*
⌚ 4	DALI logarithmic	DALI	**
⌚ 5	SSL curve	DALI	**
⌚ 6	DALI linear	DALI	**

Notes:

* Under DALI control, ⌚ 4 is the default curve.

** Under SDIM/DMX control, ⌚ 1 is the default curve.

Connections



Technical Data

Connections

DALI:	0.5 mm ² – 1.5 mm ² (max. 300 m @ 1.5 mm ²)
SDIM/DMX:	0.22 mm ² – 1.5 mm ² low-loss RS485 type (multistranded, twisted and shielded)
Mains:	Solid core: up to 4 mm ² Stranded: 2.5 mm ² <i>Note: Functional earth connection used for DALI/SDIM/DMX screens only.</i>

Power

Mains supply:	85 VAC – 264 VAC, 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 × 62 mm × 91 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 (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
EMC immunity:	EN 61547
Safety:	EN 60950
Environment:	Complies with WEEE and RoHS directives.
Isolation:	4 kV

Dimensions (mm)

