Digidim 454 Helvar

# Trailing Edge Dimmer: 4 x 500 W (4 x 2.2 A)

The DIN rail mounted DIGIDIM 454 is a 4-channel Trailing Edge Dimmer with each channel capable of controlling 2.2 A. It supports capacitive and resistive loads and can be connected directly to mains voltage lamps, and low voltage lamps with electronic transformers. Each channel of the dimmer has both current and thermal protection.

The 454 4-channel 2.2 A dimmer features an intuitive LED segment display. There is a push button user interface for monitoring, manual configuration and control purposes.

## **Key Features**

- 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
- Over current and temperature protection included
- Power on to last level

### **Additional Functions**

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

- Max/Min levels, Fade times, Scenes and Groups
- Dimmer status report
- System failure level/ignore
- Power on level
- Power on to last level

### **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 or S-DIM / DMX at the same time
- Install the unit horizontally to allow for heat dissipation
- Any enclosure must provide adequate cooling ventilation



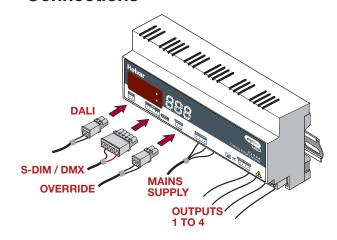
### **Dimmer Output Types**

Output	Output type	Control Protocol	
Ł 0	Non Dim	All	
E I	Linear	S-DIM / DMX	*
F 2	Square	S-DIM / DMX	*
Ł 3	S-law	S-DIM / DMX	*
<b>L</b> 4	DALI logarithmic	DALI	**
Ł 5	SSL curve	DALI	**
Ł 6	DALI linear	DALI	**

#### Notes:

- \* Under DALI control, £ 4 is used.
- \*\* Under S-DIM / DMX control, £ 1 is used.

#### Connections



### **Technical Data**

#### **Connections**

**DALI:** 0.5 mm<sup>2</sup> - 1.5 mm<sup>2</sup> (max. 300 m @ 1.5 mm<sup>2</sup>)

S-DIM / DMX: 0.22 mm<sup>2</sup> -1.5 mm<sup>2</sup> low loss RS485 Type

(multi-stranded, twisted and shielded)

Mains: Solid core: up to 4 mm<sup>2</sup>

Stranded: 2.5 mm<sup>2</sup>

Note: Functional earth connection used for DALI/S-DIM/DMX screens only

#### **Power**

Mains Supply: 85 - 264 VAC, 45 - 65 Hz Power Consumption: 2.3 W (excluding loads)

**Load Current:**  $2.2 \text{ A} (2.2 \text{ A} \times 230 \text{ V} = 500 \text{ W})$ 

4 outputs:  $4 \times 500 \text{ W} = 2 \text{ kW}$ )

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, S-DIM and DMX

Override: Switched Input

**User Interface:** 2 push buttons for configuration

## **Operating and Storage Conditions**

Ambient Temperature: 0°C to 40°C

**Relative Humidity:** 90% max, non-condensing

Storage Temperature: -10°C to +70°C

#### **Mechanical Data**

Dimensions:See diagramHousing:DIN-rail case; 9U

Weight: 280 g

IP Rating: IP30 (00 at terminals)

# **Conformity and Standards**

**DALI:** According to DALI standard IEC 62386, with

Helvar additions

S-DIM: According to Helvar S-DIM protocol

DMX: According to DMX512-A protocol

**Environment:** Complies with WEEE and RoHS directives

**EMC** 

 Emission:
 EN 61000-6-3

 Immunity:
 EN 61 547

 Safety:
 EN 60 950

 Isolation:
 4 kV

### **Dimensions**

