HYTRONIK®

HDD2200

Application

For use in upgrade retrofit of trailing edge phase dimming controls, this dimmer will convert DALI control signals to the trailing edge drivers or transformers. It can realise savings on installation and wiring costs and will also reduce unnecessary waste of electronic equipment, making it an environmentally sound solution for a lighting control upgrade.

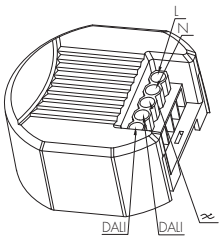
Features

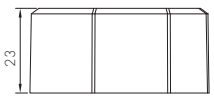
- DALI
- Over-heat Protection
- Over-load Protection
- 5 Year, 50,000hr Warranty

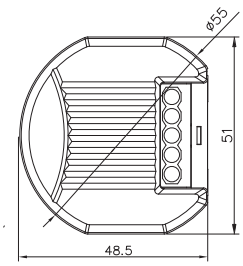
Technical Data

Dimming Range	Trailing edge dimming range 10% ~ 100%
Mounting Type	Built-in box 60mm or stand alone installation
Operating Voltage	220-240VAC 50Hz
Rated Load	200W(resistive); 200VA(capacitive)
Power Consumption	≤ 0.5W
DALI Power	2mA
Operating Temperature	Ta: -20~+50℃
Safety Standard	EN60669-1; EN60669-2-1
EMC Standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3
DALI Standard	IEC62386-101; IEC62386-102; IEC62386-205
Certifications	Semko, CB, CE , EMC, RCM

Dimensions and Terminals





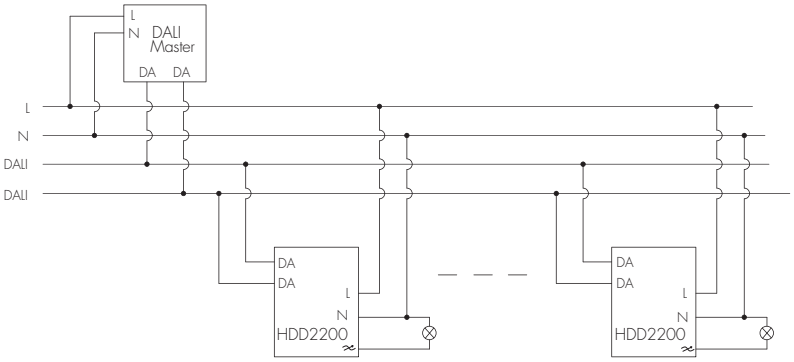


Wire Preparation

0.75 - 4mm²

Solid or Stranded wire type

Wiring Diagram



HYTRONIK®

HDP01 / HDP02 / HDP03 / HDP04

SELV IP20

Applications

Suitable for controlling DALI LED drivers, either as a Plug n' Play installation into a standard wall switch back-box, or used as a group controller in a pre-programmed DALI system. With either 4 or 6 scenes selectable and a useful night light, these controllers can meet the demands of both commercial and domestic applications:

- Office / Commercial Lighting
- Classroom
- Meeting Room
- Home Office / Domestic use

HDP01 (Independent DALI)
HDP03 (System DALI)

Features

- DALI Plug n' Play (with built -in PSU (HDP01 / HDP02)
- Rotary Switch DALI Group control (HDP03 / HDP04)
- Permanent Memory Against Power Failure
- 5 Year, 50,000hr Warranty

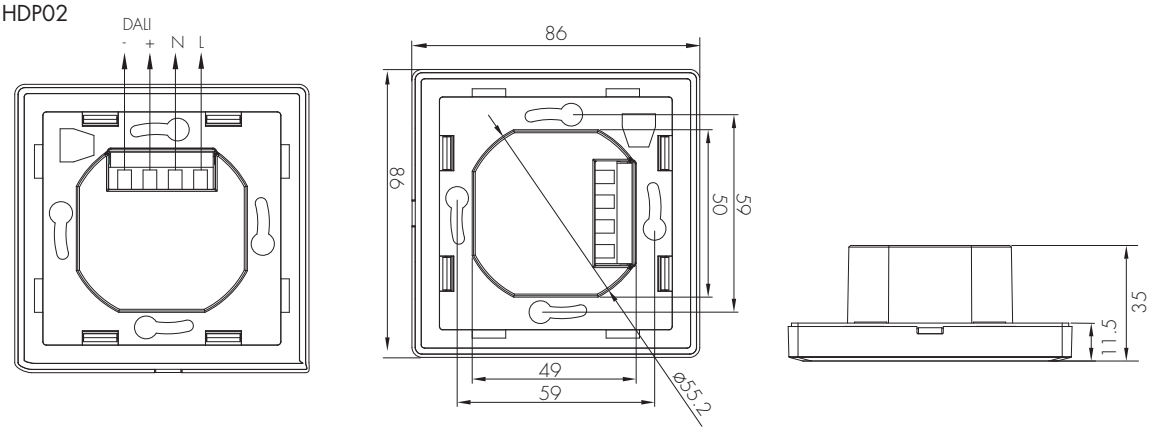
HDP02 (Independent DALI)
HDP04 (System DALI)

Technical Data

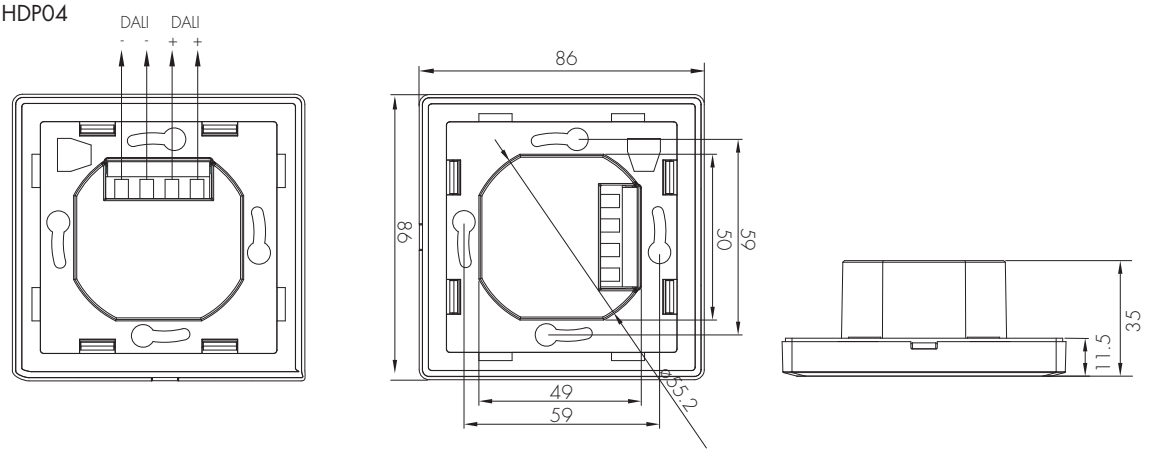
Model No.	HDP01	HDP02	HDP03	HDP04
Product Type	DALI panel (wall switch)	DALI panel (scene controller)	DALI panel (wall switch)	DALI panel (scene controller)
Operating Voltage	220-240VAC 50/60Hz	220-240VAC 50/60Hz	9.5~22.5VDC	9.5~22.5VDC
Load/Operating Current	Max. 80mA(30-40pcs DALI drivers)	Max. 80mA(30-40pcs DALI drivers)	6mA	6mA
Stand-by power	<0.5W	<0.5W	/	/
Operating Temperature	Ta: -20~+55℃	Ta: -20~+55℃	Ta: -20~+55℃	Ta: -20~+55℃
IP Rating	IP20	IP20	IP20	IP20
Warm-up Time	3s	3s	3s	3s
EMC Standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3			
Safety Standard	EN60669-1; EN60669-2-1			
DALI Standard	IEC62386-101 ; IEC62386-103 ; IEC62386-303			
Certifications	Semko, CB, RCM, CE , EMC			

Dimensions and Terminals

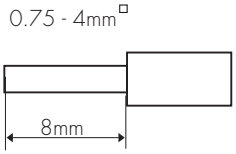
HDP01 / HDP02



HDP03 / HDP04



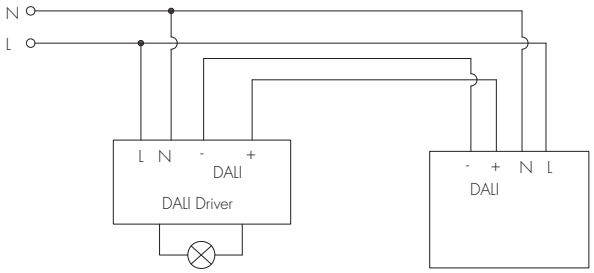
Wire Preparation



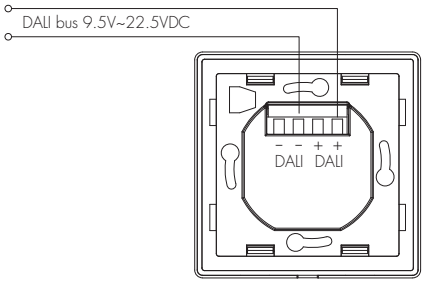
Solid or Stranded wire type 0.75 - 4mm².

Wiring Diagrams

HDP01 / HDP02



HDP03 / HDP04



Group Control (for HDP03 / HDP04 only)

The DALI panel can control the lights grouped in a DALI system via the rotary switch. Group "0" is configured and reserved for DALI broadcast.

The rotary switch channel is corresponding to the groups listed below:

Switch channel	DALI group	Switch channel	DALI group
0	broadcast	8	group 7
1	group 0	9	group 8
2	group 1	A	group 9
3	group 2	B	group 10
4	group 3	C	group 11
5	group 4	D	group 12
6	group 5	E	group 13
7	group 6	F	group 14

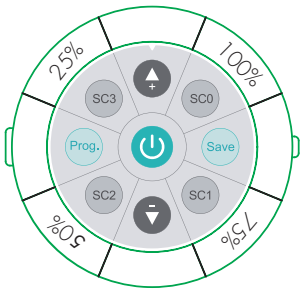
Note: Point the arrow to choose group by using a screwdriver.

Functions and Operations (HDP01 / HDP03)

ON/OFF Function (for HDP01 only)

Short press button ⏻ to turn the light ON or OFF. The last scene selected (light level) is saved.

Note: The light can also be turned on by press and hold on button ▲ or short press on any scene button SC0 SC1 SC2 SC3.



OFF Function (for HDP03 only)

Short press button ⏻ to turn the light OFF. The last scene selected (light level) is saved.

Note: The light can also be turned on by short press on any scene button SC0 SC1 SC2 SC3

Nightlight Function

Nightlight: long press (>2s) on button ⏻, the nightlight goes to permanent on mode; long press again to turn it off. Nightlight brightness level can be adjusted by long press on button ⏻ for more than 5s.

Scene Selection

Press button SC0 SC1 SC2 SC3 to select light scenes. Default light brightness levels are:

SC0: 100% SC1: 75% SC2: 50% SC3: 25%

The brightness of the scene selected can be quickly adjusted by long press (>1s) on button ▲ and ▼. This one-time adjustment will not be saved in the scene.

Scene Programming

The light brightness level for each scene can also be manually programmed:

Step 1: press button Prog., the LED indicator flashes slowly for indication.

Step 2: select one of the scene button SC0 SC1 SC2 SC3 to start adjustment.

Step 3: press button ▲ or ▼ to set the desired brightness level.

Step 4: press button Save to save the adjustment. The LED indicator flashes rapidly.

To exit programming mode, short press button Prog., or simply leave it alone. The device will exit programming mode automatically after 10 seconds.

Light Level Reset to Default

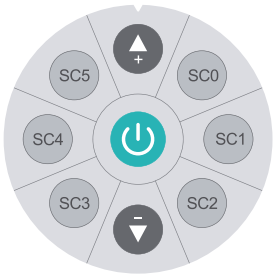
1. Single scene reset to default light level: short press on button Prog., then long press (>5s) on the scene button which needs to be reset. The LED indicator flashes rapidly for successful operation.
2. All scenes reset to default light levels: short press on button Prog., then long press (>5s) on button Save, all light levels (including nightlight) go back to default value. The LED indicator flashes rapidly for successful operation.

Functions and Operations for HDP02 / HDP04

ON/OFF Function (for HDP02 only)

Short press button ⏻ to turn the light ON or OFF. The last scene selected (light level) is saved.

Note: The light can also be turned on by long press on button ▲ or short press on any scene button SC0 SC1 SC2 SC3 SC4 SC5



OFF Function (for HDP04 only)

OFF: short press button ⏻ to turn the light OFF. The last scene selected (light level) is saved.

Note: The light can also be turned on by a short press on any scene button SC0 SC1 SC2 SC3 SC4 SC5

Nightlight Function

Long press (>2s) on button ⏻, the nightlight goes to permanent on mode; long press again to turn it off. Nightlight brightness level can be adjusted by long press on button ⏻ for more than 5s.

Default setting can be restored by a long press (2s) on button SC0.

Scene Selection

Press button SC0 SC1 SC2 SC3 SC4 SC5 to select light scenes. Please note that the light levels of the DALI drivers need to be pre-progrmmed via any DALI master programming tool.

The HDP outer ring details a removable bezel in which the scene can be marked according to the programmed settings

Examples:

* Office: Energise /Relax & Ease /Coffee /Lunch-break /Snooze /Nightshift
* Meeting Room: Meeting /Presentation /Relax /Display /Whiteboard /Stage
* Home: Breakfast /TV /Dinner /Cosy /Housework /Reading

The brightness of the scene selected can be quickly adjusted by long press (>1s) on button + and − . This one-time adjustment will not be saved in the scene.

Loading and In-rush Current

Model	HDP01	HDP02
In-rush Current (Imax.)	3.1A	3.1A
Pulse Time	407 µs	407 µs

Number of Drivers Based upon 16A Circuit Breaker

Cct Breaker Type	HDP01	HDP02
Type B	100	100

Conversion table for max. quantities of drivers on other types of Miniature Circuit Breaker

MCB Type	Rating	Relative number of drivers
B	16A	100% (see table above)
B	10A	63%
B	13A	81%
B	20A	125%
B	25A	156%

MCB Type	Rating	Relative number of drivers
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%

* Environmental factors (such as temperature) will also influence the maximum number of the drivers. Please refer to the MCB manufactures datasheet for loading and derating factors.