



DALI PCD 1-300 one4all

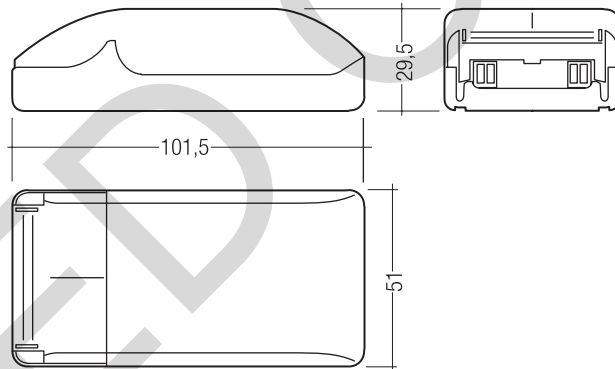
Leading-edge/trailing-edge phase dimmer

Product description

- Digital leading-edge and trailing edge phase dimmers
- Total connected load: 1 – 300 VA
- one4all input: DALI, DSI and switchDIM input
- 1 dimmed phase (output)
- With automatic load detection
- Surface-mounted casing
- Status LED for indicating the operating status
- Suitable for operation with LED retrofit bulbs
- 5-year guarantee

Technical data

Rated supply voltage	220 – 240 V
Mains frequency	50 / 60 Hz
Connected load	1 – 300 VA
Power loss	0.4 W (1.5 W at full load)
Ambient temperature t_a	0 ... +50 °C
Type of protection	IP20



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Ordering data

Type	Article number	Packaging, carton	Weight per pc.
DALI-PCD 1-300 one4all	28000441	25 pc(s).	0.085 kg

Specific technical data

Type	Inputs			Outputs		Terminals
	Input, DALI/DSI control input and switchDIM	Current draw	Number of DALI addresses	Dimmed phase	Control range, DSI / Control range, DALI	
DALI-PCD 1-300 one4all	1	2 mA from DALI	1	1	0; 1 – 100 % / 0; 01 – 100 %	0.5 – 1.5 mm ²

Standards

EN 61347-1
 EN 61347-2-11
 EN 60669-1
 EN 60669-2-1
 EN 50428
 according to DALI standard V1
 EN 62386-101
 EN 62386-102
 EN 62386-205

Phase dimmers with automatic load detection, leading-edge or trailing-edge. They are controlled via switches (switchDIM) or via a DALI/DSI signal. Total connected load: 1–300 VA

Area of application:

Digital phase dimmers enable low-voltage tungsten-halogen lamps, in conjunction with electronic or magnetic transformers, and ohmic light sources (incandescent lamps) with a total output of 1 to 300 VA to be dimmed. Control is either via a DALI/DSI signal or directly connected switches (switchDIM). The digital phase dimmer is compatible with LED retrofit lamps. LV halogen LED retrofit lamps that are operated by an electronic or magnetic transformer are also compatible.

Status-LED for the operating mode:

Normal operation: LED off
 Overload: LED flashes slow (1/sec.)
 Short-circuit: LED flashes fast (5/sec.)
 Permanent short-circuit/overtemperature: LED on

Glow-wire test

according to EN 60598-1 passed.

switchDIM:

When a new unit is installed in an existing system or when the system is first put into operation the individual units are not synchronised. This means that some units will be at status on and some at status off. Pressing the switch briefly will change the status; units previously on will be switched off, but the rest will be switched on. By pressing the switch for longer than 10 seconds all the units will be synchronised to the same status. The synchronisation process is completed when all the lamps have assumed the same light value (50 %). The same synchronisation process may also be necessary during normal operation if an individual unit becomes unsynchronised because of an

incorrect switching operation.

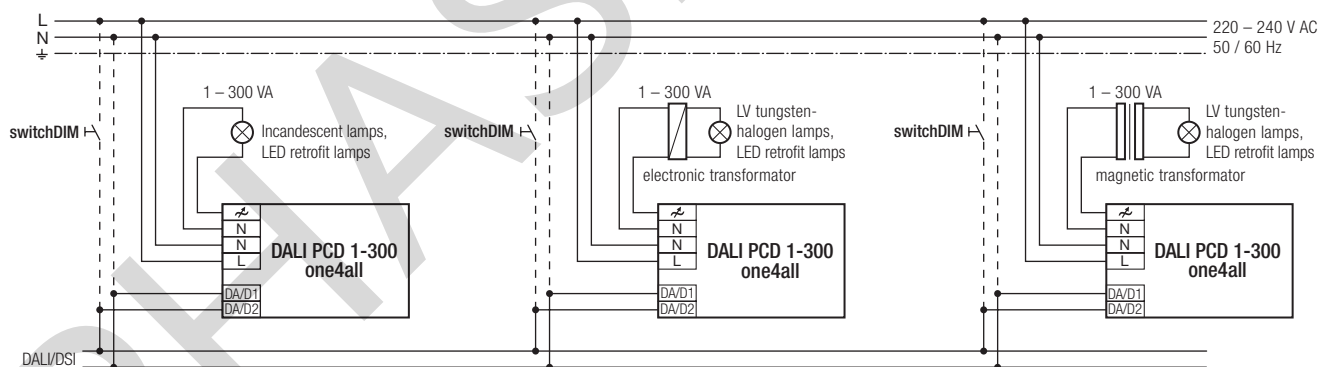
switchDIM is a very simple tool for controlling ballasts with conventional momentary-action switches or motion sensors.

To ensure correct operation a sinusoidal mains voltage with a frequency of 50 Hz or 60 Hz is required at the control input.

Special attention must be paid to achieving clear zero crossings. Serious mains faults may impair the operation of switchDIM.

DALI addressing:

The DALI PCD 1-300 one4all also supports physical DALI addressing. Press the button between the terminals to assign the address.



Mixed loads (capacitive, inductive and ohmic) may be used.¹⁾

¹⁾ Different loads require different control signals by the dimmer.

If various loads are operated simultaneously at the dimmer, e.g. electronic transformers, magnetic transformers, LED retrofit lamps, etc., the dimming signal will focus on the most dominant load. As a result, the other loads may be operated by wrong control signals, which will result in improper dimming. In this case, a decrease in the service life of the loads installed cannot be excluded either. It is therefore recommended to avoid controlling different loads simultaneously by the same dimmer.

**Information on starting behaviour**

Following mains failure and subsequent restoration of the supply voltage, the PCD 1-300 will measure the installed load in order to determine the optimum control signal.

In the process, the light sources will be dimmed up and down briefly.

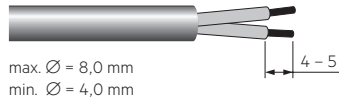
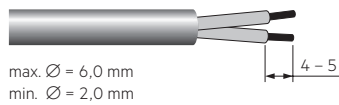
**Information on minimum dimming level**

The PCD 1-300 supports in general a min. dimming level of 1 % for DSI and 0.1 % for DALI. But not every load supports such low levels. For that reason the minimum dimming level is not a static value and is calculated for every load new.

Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid. For perfect function of the cage clamp terminals the strip length should be 4 – 5 mm for the input terminal.

The max. torque at the clamping screw (M3) is 0.2 Nm.

Side D2**Side D1**

To get a proper working strain relief it is recommended that the cable jacket diameter of the side D2 is 2 mm bigger than the diameter of the side D1. (This can vary if the used cable jacket material varies from side D2 to D1 in pinching property).

