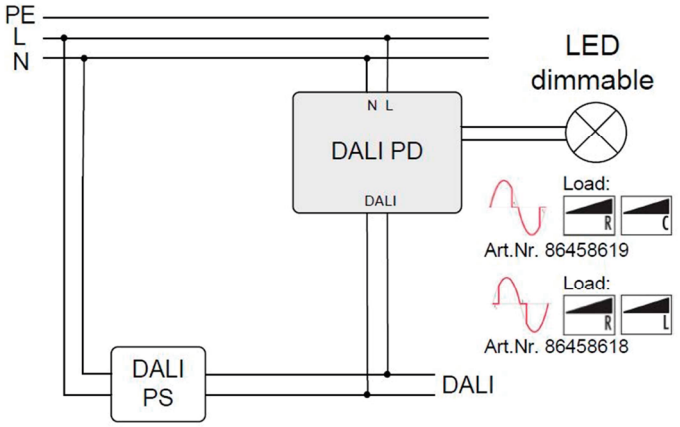

typical structure

ATTENTION:
Do not apply any potential to the light bulb connector!

Switch off mains supply before replacing the light bulb.

type of dimmers:
Leading edge
Trailing edge
Universal

load:
3-25W: compact housing for back box installation
10-300W: remote ceiling, din rail

When connecting multiple bulbs the same load type has to be used (inductive or capacitive).

info universal dimmer:
suitable for resistive, inductive and capacitive loads.
After mains voltage is supplied the dimmer will recognize the load type and make a decision for leading edge phase cut operation (inductive load) or trailing edge phase cut operation (capacitive load)

Universal dimmer (Art.Nr 86458619-xxxU):

dimmer type	suitable loads
R,L,C	R / L / C

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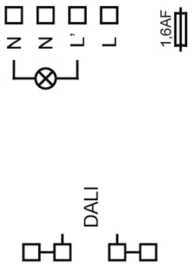
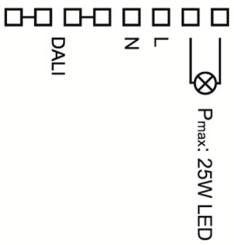


connection plan PD300 DE



connection plan PD

Connection

The DALI PD is connected to the DALI-line. The phase cut control and the DALI-communication is supplied directly by the DALI line. A typical value of the current consumption is 6mA. In order to supply components on a DALI line the installation of a power supply (DALI PS) is required. The connection to the DALI-line is polarity free. Internally the DALI-terminals are connected through as visualized on the housing.

The input of the phase dimmer (L-N) has to be connected to the mains. The DALI PD is suitable for loads from 3W to 25W or 10W-300W depending on the version.

The maximum output current of the dimmer must not be exceeded! Check the power factor of the bulbs in manufacturer's specification (especially when using lamps with power of 25W and below).

Function

The DALI PD interface converts the DALI dim level into a voltage signal. The phase cut control generates a sinusoidal voltage with leading/trailing edge phase cut (logarithmic dimming characteristic corresponding to DALI). The operation mode (trailing/leading edge) can be queried via DALI (DT4). The PHYSICAL MINLEVEL is 3%.

Up from firmware version 3.5 an additional operating mode is supported. Instead of phase dimming (DT4) the device can act as switch (DT7 capable). Hence the switching characteristic is determined by the comparison of the virtual direct arc power level (VDAP) with 4 thresholds.

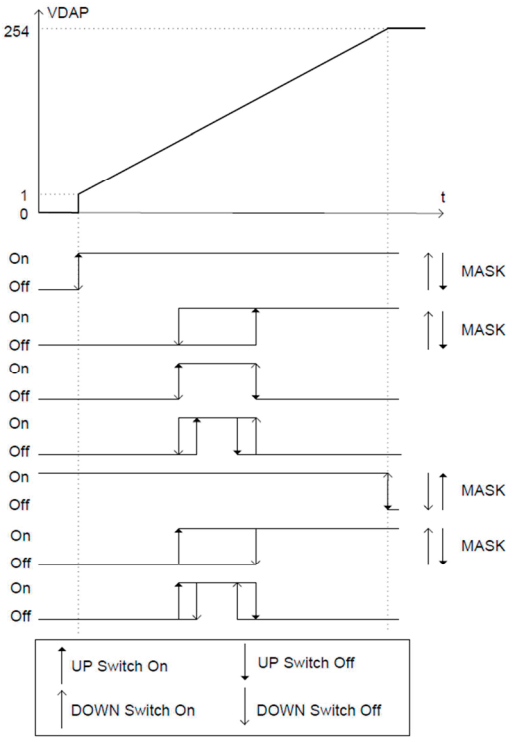
The virtual dim level (VDAP) is like the dim level of DALI-ballasts and is therefore limited by MINLEVEL and MAXLEVEL and influenced by fade-time and fade-rate.

For each dim direction 2 thresholds can be defined. They are compared with the virtual dim level and as a result the output is switched on or off:

virtual dim direction	**comparison of virtual dim level and thresholds**	**output**
UP	VDAP>= UP SwitchOn Threshold	ON
UP	VDAP>= UP SwitchOff Threshold	OFF
DOWN	VDAP<= DOWN SwitchOn Threshold	ON
DOWN	VDAP<= DOWN SwitchOff Threshold	OFF

If a threshold value is set to "MASK" the threshold is inactive and does not influence the relay output.

Find some examples of switching characteristics below:

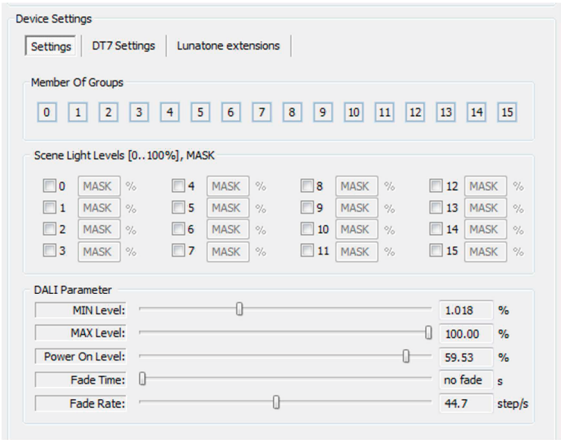


With the help of the fade time switch on and switch off delays can be realized.

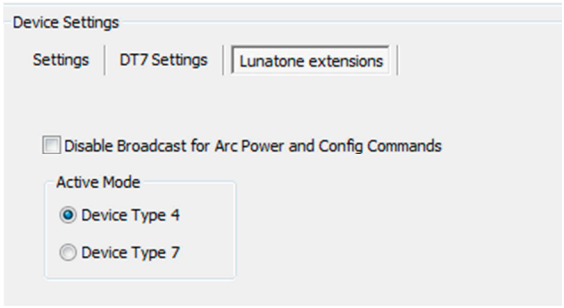
Since the device is bus powered the configurable SYSTEM FAILURE LEVEL is not supported. In case of a DALI-line outage the DALI PD applies 100% at the output whereas at the output of the DALI PD300 0% are applied.

The Configuration can be done easily with the help of the DALI Cockpit:

General Settings:



Lunatone Features:



DT7 Settings: