LIGHT MANAGEMENT IS VIVARES

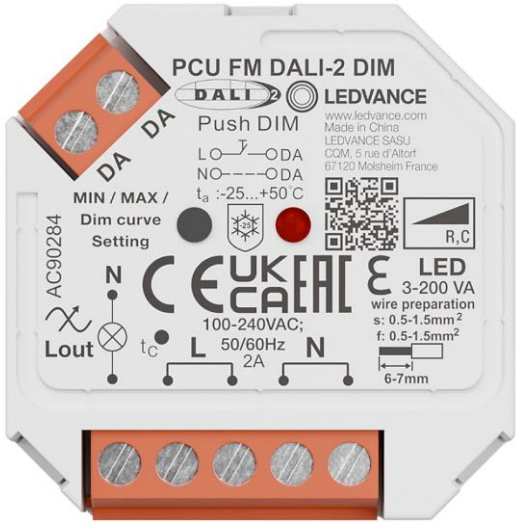
Application guide

PCU FLUSH MOUNT DALI-2 DIM

Trailing edge Phasecut dimmer

Status: June 2026| LEDVANCE
Subject to change without and notes. Errors and omission excepted.

Application guide
PCU FM DALI-2 DIM



PCU FM DALI-2 DIM

EAN: 4099854846922

Application guide
PCU FM DALI-2 DIM

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Application guide
PCU FM DALI-2 DIM– General

Product description

The PCU FM DALI-2 DIM is a superior DALI-2 trailing edge phase cut dimmer for LED lamps and electronic transformers for a load range of 3-200VA. It is also suitable for incandescent lamps up to 400W.

It fits into standard flush boxes and can be controlled by a DALI signal (DALI-2 mode) or an external Push to make button (Push DIM mode). Push DIM control mode allows dimming and switching and storage of a memory value.
In DALI Mode, the PCU fully complies with DALI Part-102.

Minimum and Maximum Dimming level / Phase cut angle can be easily adjusted for an optimal fit with the individual lamp.
Automatic rescaling and optimziation of the dimming curve according to the chosen Min. / Max. values, allow a precise and comfortable dimming control. A selectable linear or logarithmic dimming behavior enables further customization.

Integrated electronic and overload, overtemperature and short cut protection is reversible and provides maximal safety in operation.

Application guide
PCU FM DALI-2 DIM – General

Product Features

- **Dimming and switching of LED lamps, electronic transformers and classic lamps**
- **Push DIM Mode** with automatic and fixed memory function for switch on level
- **DALI-2 compliant** operation Mode
- **Flush box, surface and DIN rail mounting** option

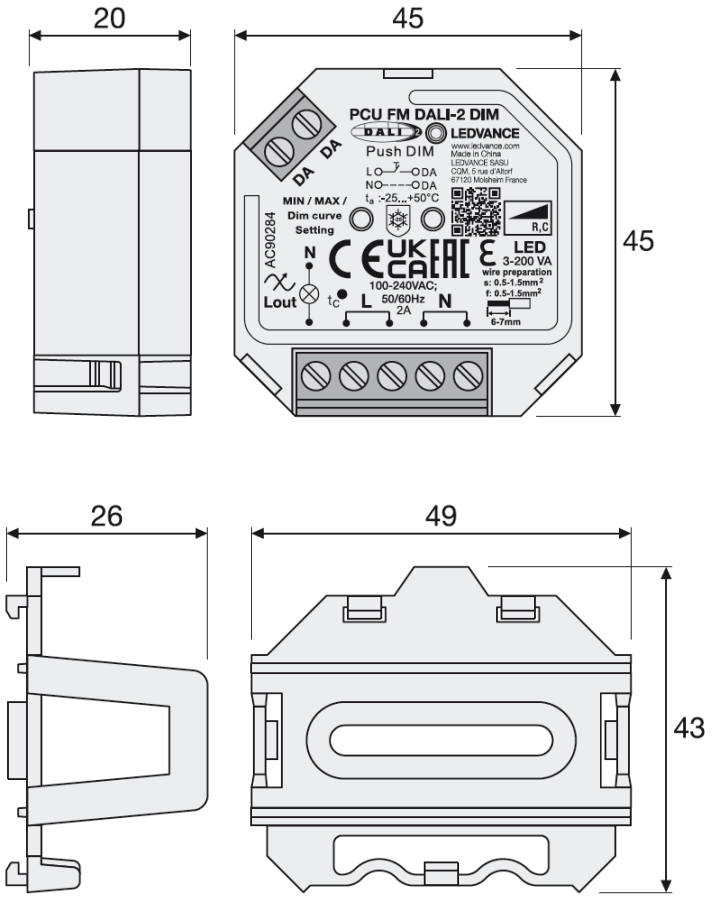
Product Benefits

- **Wide load range:**
  3 - 200VA for LED lamps / electronic transformers
  3 - 400W for classic incandescent lamps
- **Easy setting of Min. and Max.** Phasecut angle / dimming level
- **Automatic optimization of dimming curve** for precise and convenient dimming
- **Integrated electronic overload-, overtemperature- and short cut protection**
- **Fits into standard flush device boxes** with > 40mm depth
- **Operates as simple push button and fully certified DALI Dimmer**
- Supports **linear and logarithmic dimming curve** (selectable)

Application areas

- **Residential** / **Shop/ Hospitality** areas / **hotel and conference rooms**

[mm]

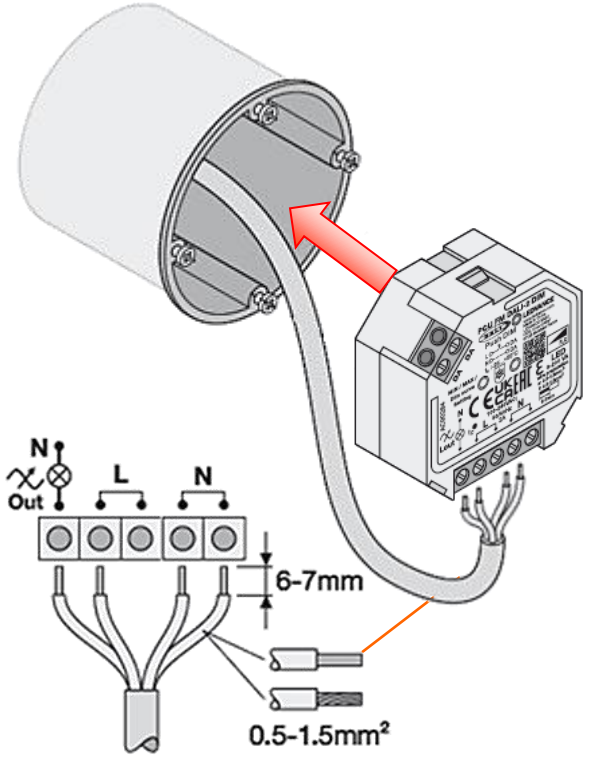


Wall and DIN rail mounting adapter (included)

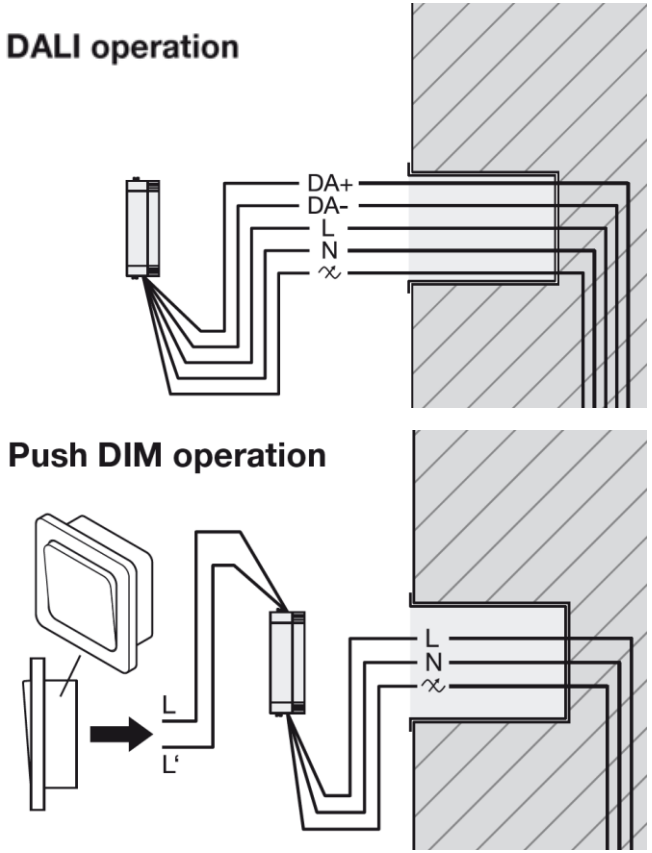
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PCU FM DALI-2 DIM – Flush box mounting

Mounting principle

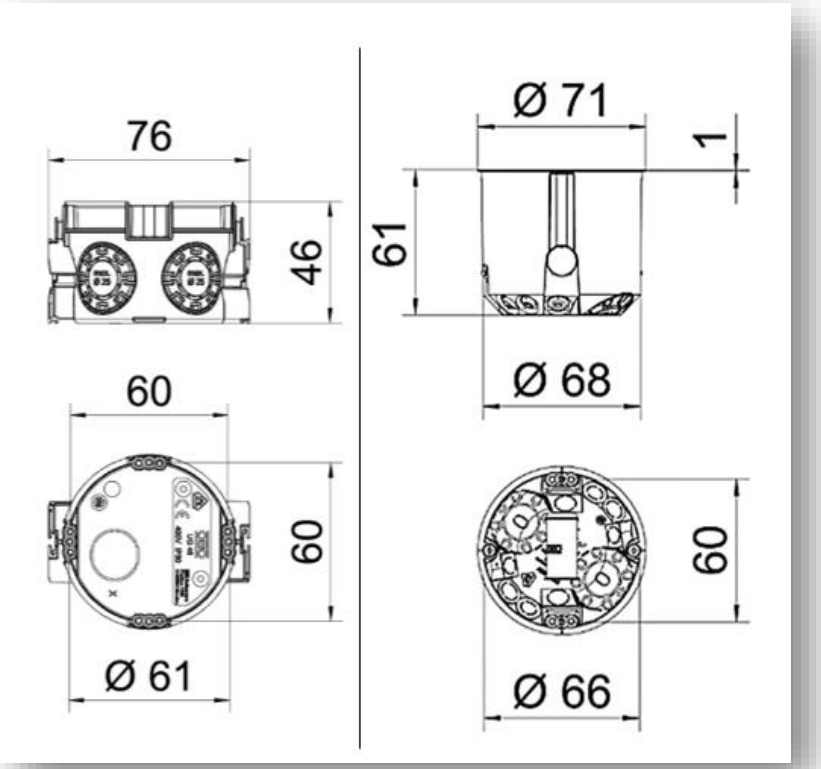


Wire preparation



Suitable flush boxes

For concrete walls / for hollow walls

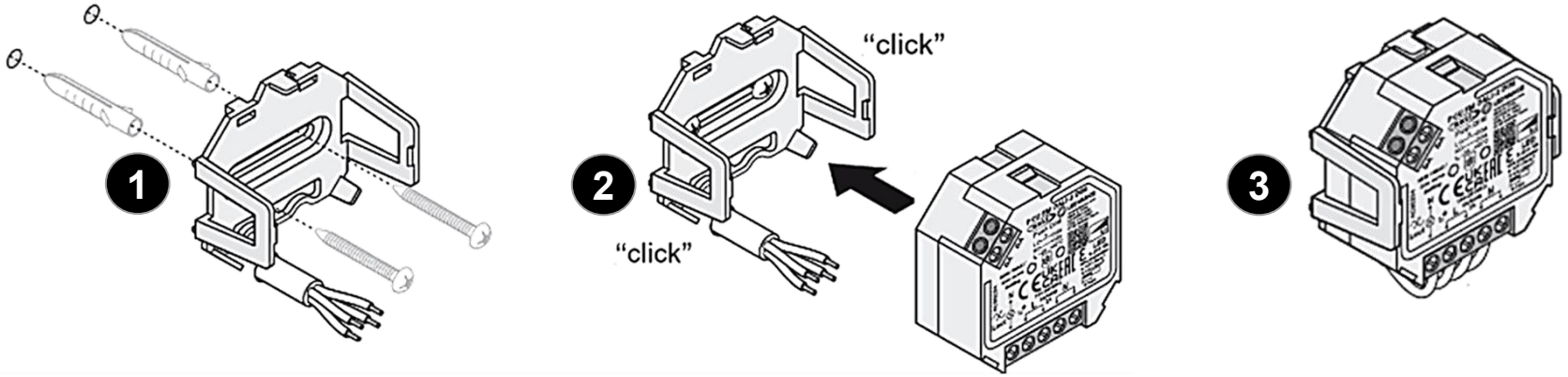


Switch off DALI and mains supply during installation!

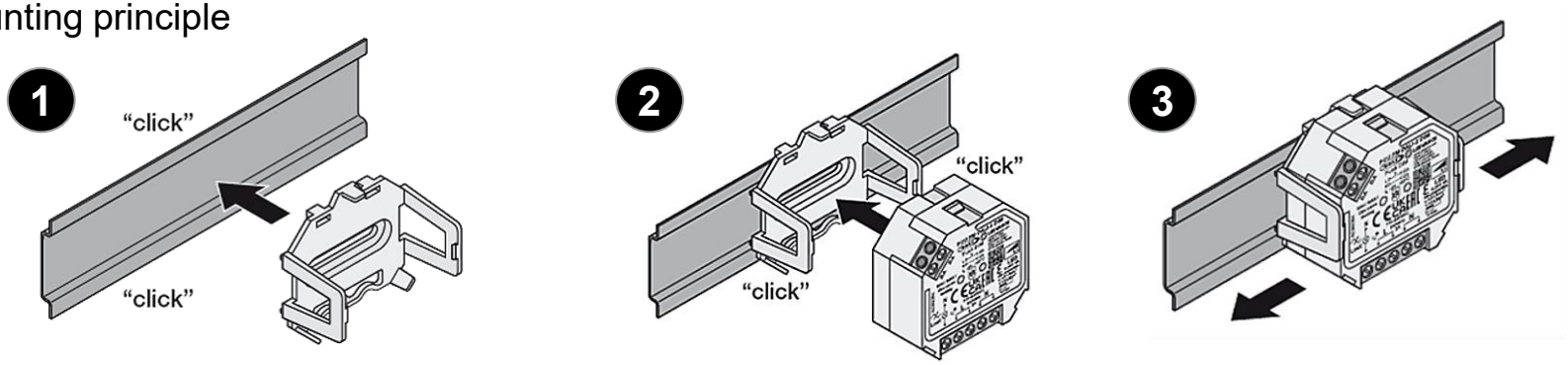
Application guide

PCU FM DALI-2 DIM – Surface and DIN rail mounting

Surface mounting principle



DIN Rail mounting principle

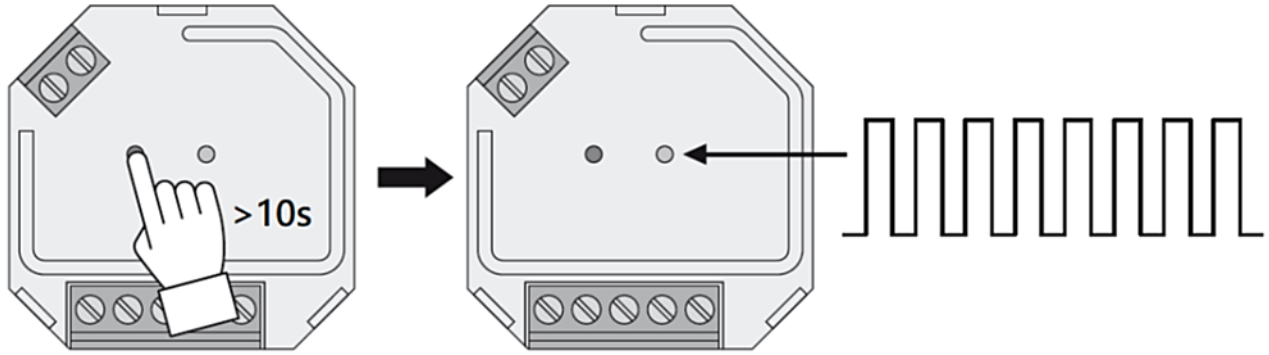


Switch off mains and DALI supply during installation!

Application guide

PCU FM DALI-2 DIM – Configuration: *RESET*

RESET PCU		Remark
Step 1:	Press integrated button for more than 10s until the integrated LED blinks rapidly	Min and Max Level will be reset to the ex-factory setting and the dimming curve will be set to linear Note: *The RESET does **not** affect any DALI or Push DIM Parameters*

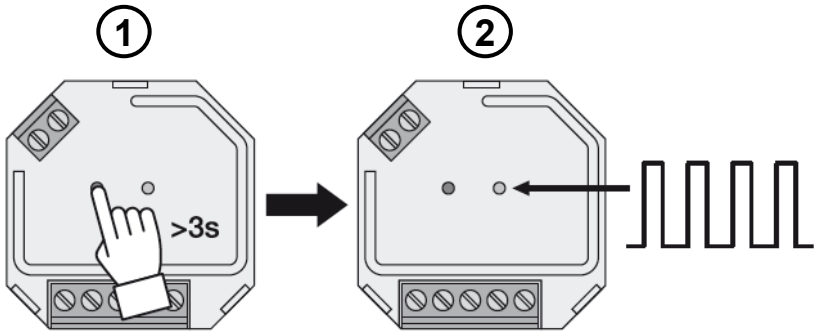


Application guide

PCU FM DALI-2 DIM – Configuration: *Set Minimum dimming level*

Push DIM mode

Set Minimum level		Remark
Step 1:	Long press integrated button for more than 3s, until the integrated LED starts to blink	*Minimum Setting option will be terminated automatically after 5min*
Step 2:	Dim to the desired Minimum level via Long push(es) to the external Push DIM button	*Ensure that the Minimum level is high enough for a reliable switch On of the light source also @ Minimum Level*
Step 3:	Store setting by a long press >3s to the integrated button until the internal LED switches off and the external connected light sources flash	*Dimming curve will be rescaled and optimized automatically according to the new Minimum setting*

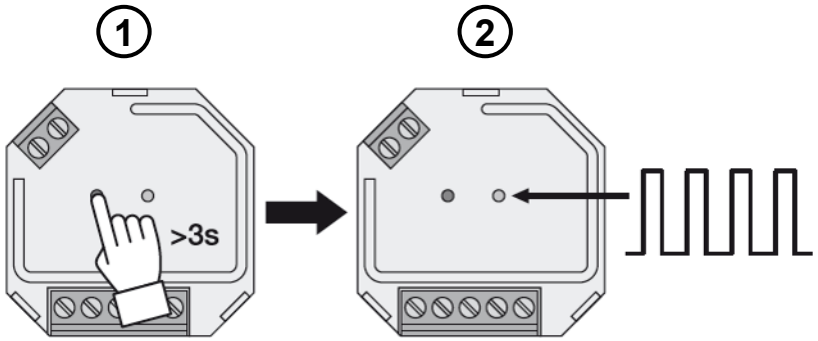


Application guide

PCU FM DALI-2 DIM – Configuration: *Set Minimum dimming level*

DALI mode

Set Minimum level		Remark
Step 1:	Long press integrated button for more than 3s, until the integrated LED starts to blink	*Minimum Setting option will be terminated automatically after 5min*
Step 2:	Dim to the desired Minimum level via DALI light level commands	*Ensure that the Minimum level is high enough for a reliable switch On of the light source also @ Minimum Level;* *Tip: for an easy setting use a DALI MCU*
Step 3:	Store setting by a long press >3s to the integrated button until the internal LED switches off and the external connected light sources flash	*Dimming curve will be rescaled and optimized automatically according to the new Minimum setting. New Minimum level will be associated to DALI light level 85dez.*

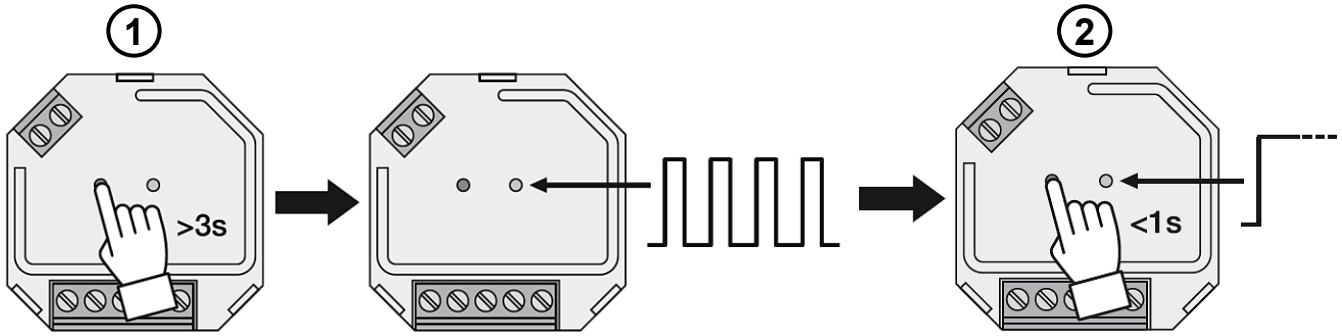


Application guide

PCU FM DALI-2 DIM – Configuration: *Set Maximum dimming level*

Push DIM mode

Set Maximum level		Remark
Step 1:	Long press integrated button for more than 3s, until the integrated LED starts to blink	
Step 2:	Short press the integrated button < 1s → the integrated LED is permanently lit	*Maximum Setting option will be terminated automatically after 5min.*
Step 3:	Dim to the desired Maximum level via Long push(es) to the external Push DIM button	*Ensure that the Maximum level is not too high to avoid non-responsive dimming range.*
Step 4:	Store setting by a long press >3s to the integrated button until the internal LED switches off and the external connected light sources flash	*Dimming curve will be rescaled and optimized automatically according to the new Maximum setting*

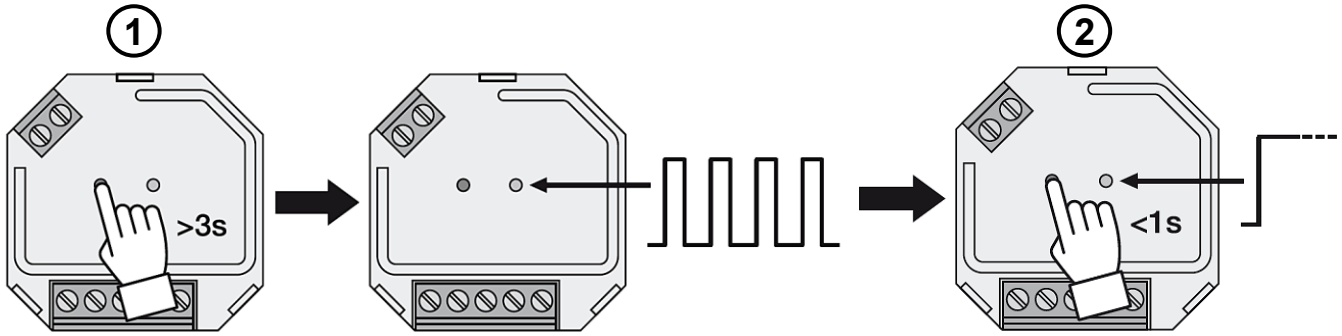


Application guide

PCU FM DALI-2 DIM – Configuration: *Set Maximum dimming level*

DALI mode

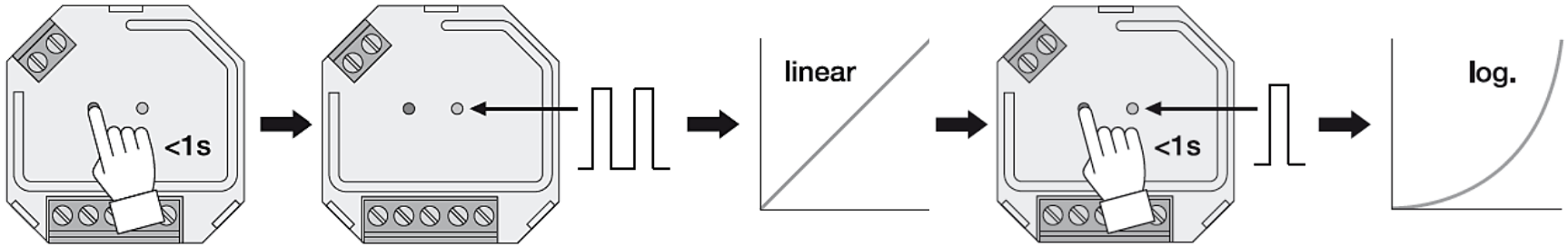
Set Maximum level		Remark
Step 1:	Long press integrated button for more than 3s, until the integrated LED starts to blink	
Step 2:	Short press the integrated button < 1s → the integrated LED is permanently lit	*Maximum Setting option will be terminated automatically after 5min.*
Step 3:	Dim to the desired Maximum level via DALI light level commands	*Ensure that the Maximum level is not too high to avoid non-responsive dimming range.; Tip: for an easy setting use a DALI MCU*
Step 4:	Store setting by a long press >3s to the integrated button until the internal LED switches off and the external connected light sources flash	*Dimming curve will be rescaled and optimized automatically according to the new Maximum setting*



Application guide

PCU FM DALI-2 DIM – Configuration: *Select dimming curve*

Select Dimming curve		Remark
Step 1:	Short press integrated button <1s, To toggle between linear and logarithmic briefly press the integrated button and check the integrated LED indication: → If the integrated LED blinks 2x: Linear curve is selected → If the integrate LED is blinks 1x: Logarithmic curve is selected	*Change of the dimming curve is possible at any time and does not impact the current setting of the Min-/ Max Levels. Selected dimming curve is valid for DALI and Push DIM mode.*

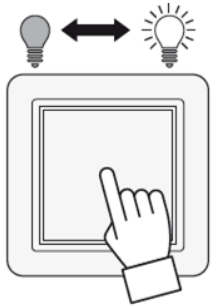


Application guide

PCU FM DALI-2 DIM – User operation

Push DIM mode

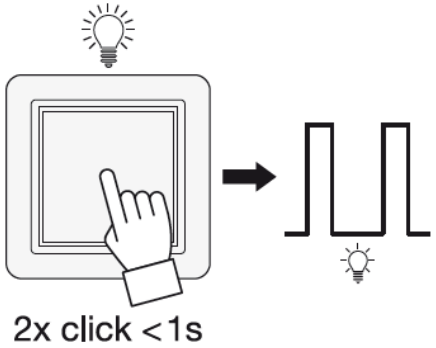
Switch ON / OFF



- To switch on / off briefly press the external push button.
- Switching direction toggles with each press.

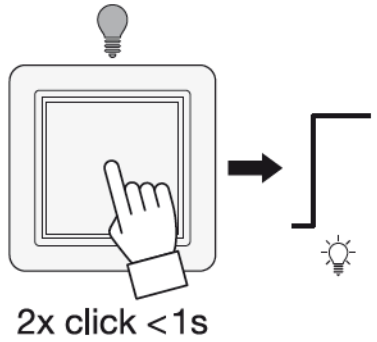
Define manual Switch ON behaviour

Store memory value



- To save a specific brightness for Switch ON, set the desired brightness, then store it by double-clicking push button.
- Confirmation of storage is shown by the lights blinking twice.

Delete memory value



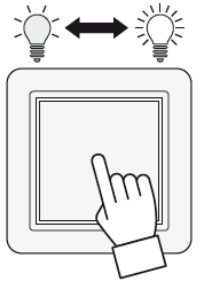
- To remove a fixed brightness setting for Switch ON, turn off the light and double-click the push button.
- Successful deletion is confirmed when the lights turn ON to 100% brightness. After deleting fixed levels, the Switch ON will revert to the last values used before manual OFF.

Application guide

PCU FM DALI-2 DIM – User operation

Push DIM mode

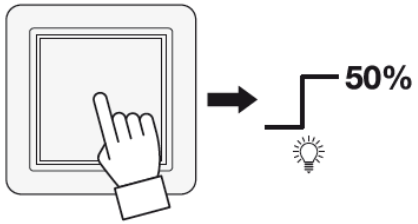
Dimming



click >1s

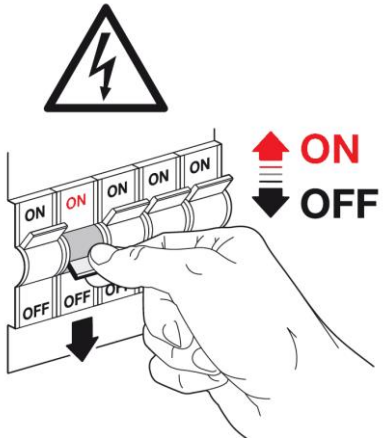
- To switch on / off long press the external push button.
- Dimming direction toggles with each press.

Synchronization



- Due to line voltage disturbances or contact bouncing of the push button, PCU DIM that are controlled via the same push button may get out of sync (= different switching states or dimming levels)
- To sync the devices, press the button for more than 15s
  → all devices are set to 50% / dimming direction is set to upwards.

Behaviour after mains interruption

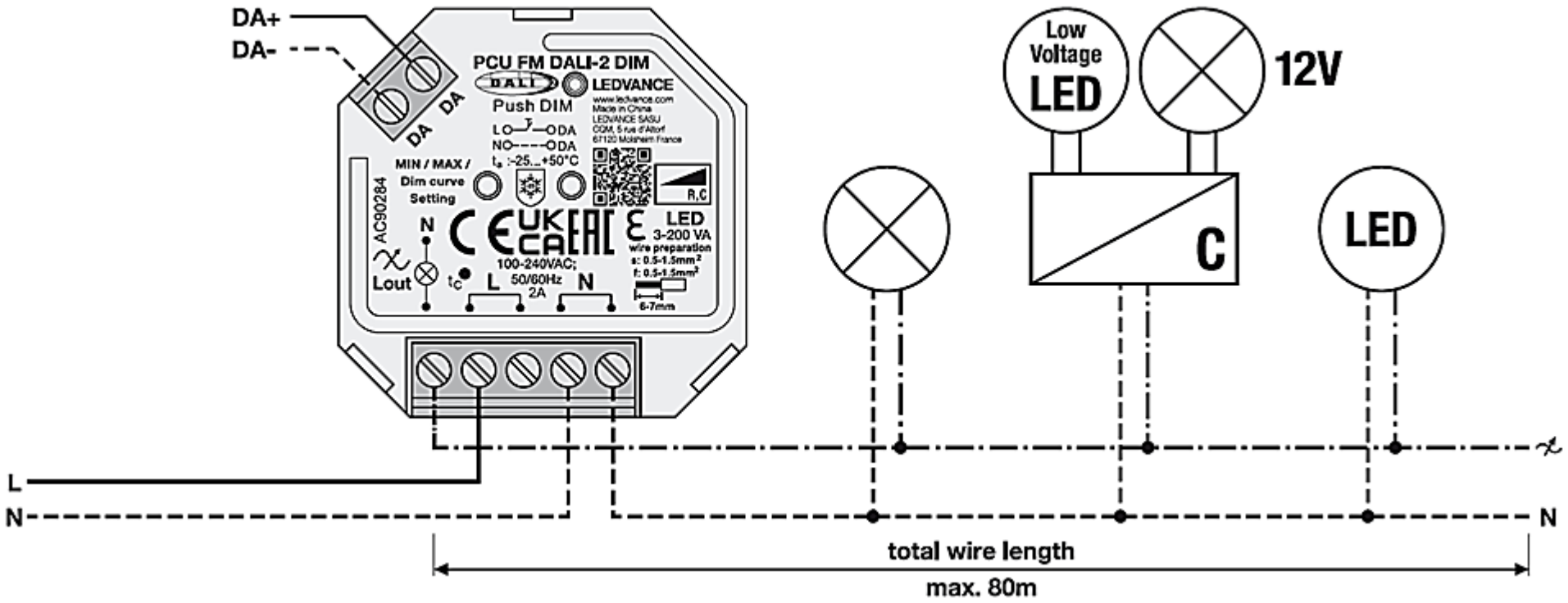


- After a mains interruption the last dimming and switching state will be reestablished automatically

Application guide

PCU FM DALI-2 DIM – Wiring example 1: DALI

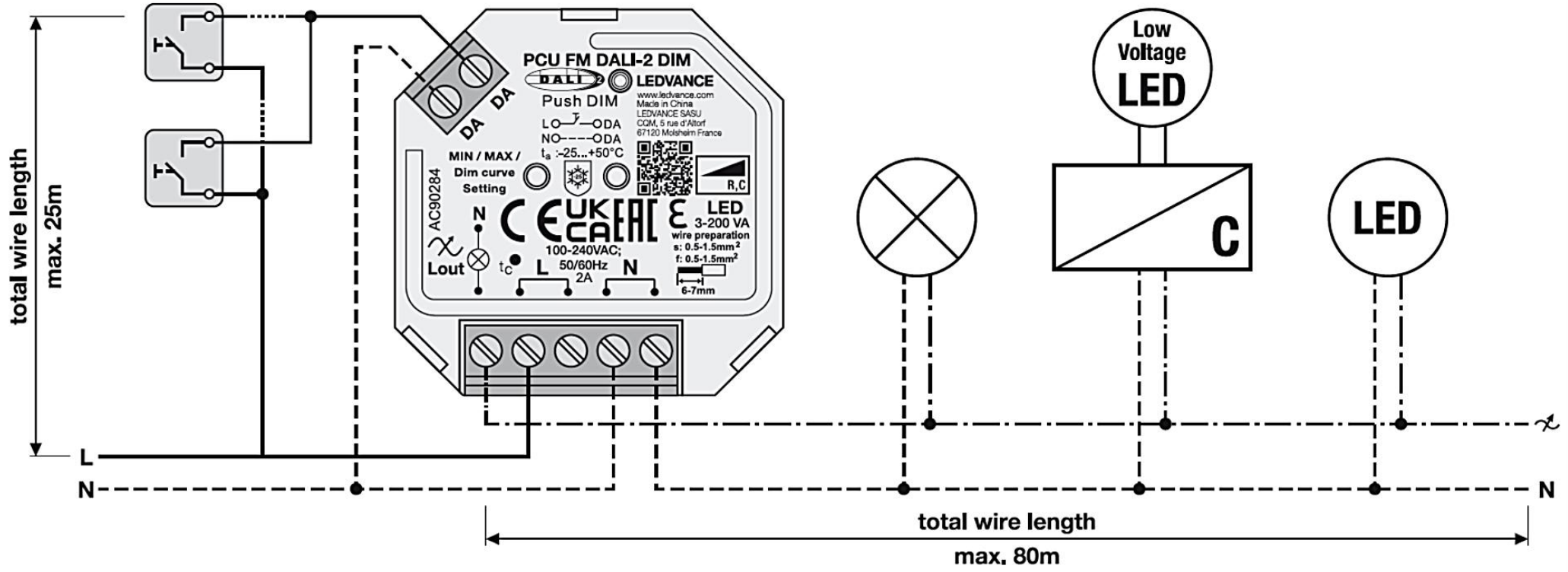
DALI operation mode



Application guide

PCU FM DALI-2 DIM – Wiring example 2: Push DIM

Push DIM operation mode



Application guide
PCU FM DALI-2 DIM

Questions and Answers

Q1: Can I use Push DIM and DALI control at the same time?
A1: No both operation modes can not be mixed, either you chose a Push DIM control or a DALI application.

Q2: I have a room with multiple entry doors; Can I connect several push buttons to PCU DIM in parallel to build up multiple points of control?
A2: Yes, if the total wire length to all push buttons is below 25m that is possible (see wiring example 2).

Q3: Which DALI controllers can I use for the PCU DIM?
A3: In DALI operation Mode, the PCU is a generic certified DALI to phase cut driver / converter acc.IEC62386-102 which is compatible with all DALI-2 control units.

Application guide
PCU FM DALI-2 DIM

Troubleshooting

QT1: The connected lamps switch off when I dim down and do not switch on in low dimming state what is root cause?
AT1: LED lamps need more power to switch ON than classic lamps, please increase the Minimum level as described on page 8/10

QT2: If I dim down from maximum in the beginning nothing happens?
AT2: Different to classic lamps, LED lamps do not need the full sine wave to achieve full brightness. Please reduce the maximum (phase cut-) level as described on page 9/11

QT3: Lights can be switched ON /OFF but are not dimmable and stay at fixed level when switched ON the possible root cause?
AT3: The Min/Max settings may not fit with the connected lamp, please RESET the dimmer as described on page 7 and retry.
If the problem persists most probably the connected lamps are not phase cut dimmable.

QT4: Some lamps have a different light output than the rest although they are connected to the same PCU DIM?
AT4: With LED lamps this can happen easily if connected lamps belong to different type/brand or different generation. Please ensure that the lamps connected are identical in type, brand and generation.

QT5: The PCU does not react and the integrated LED blinks red?
AT5: The red LED blinking permanently indicates an overload and/or an overtemperature.
Please reduce load and in case of a possible overtemperature please wait > 15min, then retry and power cycle if necessary

Application guide
PCU FM DALI-2 DIM

Technical data

	PCU FM DALI-2 DIM
Input voltage range (AC)	100-240V (50/60Hz)
Load range (resistive / capacitive)	3 - 400W / 3 - 200VA
Allowed wire diameter	0.5-1.5mm²
Protection class	II
Protection type	IP 20
Ambient temperature range	-25…+50°C
Humidity range	10-95%
Max. total wire length phase cut output	80m
DALI input current	2mA
Dimming range* (incandescent / LED*)	0.1-100% / 1-100%
DALI Physical Min Level	85
Dimensions (l x w x h)	45x45x20mm
Net weight	43g
Lifetime	> 50.000h

* typical (lighting/lamp dependent)

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THANK YOU