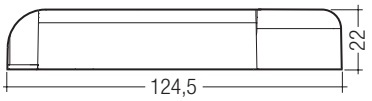
IP20 SELV RoHS

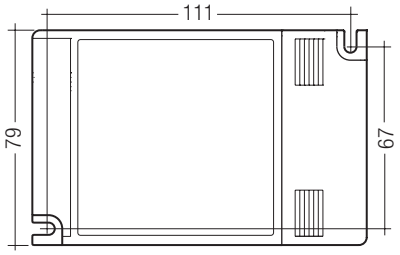
TALEXXconverter LCAI 50 W 1050 mA N020 DALI

TALEXXconverter REMOTE LCI

Product description

- 1-channel constant current converter
- Dimmable via DALI and momentary action switch
- Independent converter for indoor use
- FAN output 12 V
- NTC input channel
- 1,050 mA PWM output signal (default)
- Overload protection
- Thermal protection
- Short-circuit protection
- No-load protection
- Power input on standby < 2 W
- Type of protection IP20





Technical data

Rated supply voltage	220 – 240 V
Rated current (at 230 V / 50 Hz / full load)	0.25 A
Input voltage range, AC	216 – 264 V
Mains frequency①	50 / 60 Hz
Typ. efficiency (at 230 V / 50 Hz / full load)	0.91
λ (at 230 V / 50 Hz)	0.95
THD	< 10
Inrush current	20 A / 400 µs
Control input	DALI and PUSH function
Stand-by power (at 230 V / 50 Hz)	< 2 W
Output voltage range (at 1,050 mA)	2 – 48 V
Max. output voltage②	90 V
Output current tolerance	± 5 %
Output current (default)	1,050 mA
Output power (at 1,050 mA)	50 W
Dimming range	1 – 100 %
PWM frequency	230 – 250 Hz
Set up time at 230 V (acc. to the DALI standard)	500 ms
Switch-off time (at full load)	100 ms
FAN output, voltage	12 V
FAN output, current③	50 mA
ta operating (at 1,050 mA)	-25 ... +45 °C
Max. casing temperature tc	80 °C
Max. casing temperature tc (at lifetime 50,000 h)	75 °C
Weight	0.15 kg
Dimensions LxWxH	124.5 x 79 x 22 mm

① The device is not suitable for DC operation.

② No-load operation.

③ Max. permitted inrush current: 50 mA.

Ordering data

Type	Article number
LCAI 0050/1050 N020 DALI	24166469

Packaging: 40 pieces/carton, 1,600 pieces/pallet

Standards
EN 55015
EN 61000-3-2
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384
IEC 62386-101
IEC 62386-102
DIN VDE 0710 part 14

Digital signal DALI
The control input is non-polar. The control signal is not SELV. Control cable has to be installed in accordance to the requirements of low voltage installations. Different functions depending on each module.

PUSH function
Integrated Push function allows a direct dimming via push button. Push button must be connected between the terminal block (PUSH) and Phase (L).
Maximum 10 driver in series controlled by one or more push buttons.
The maximum length of push cables is 15 m.

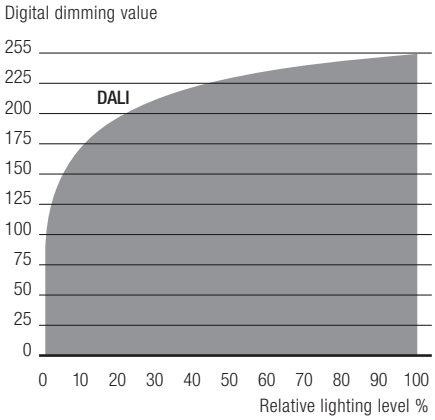
PUSH-Synchronisation
If more than one device is operated with a single key during PUSH operation, asynchronous behaviour can occur, which will require manual resynchronisation using the method described. It is recommended not to control more than four devices using a single key. Should this be unacceptable, a synchronisation cable will have to be used instead. Any 1-key dimmer that does not feature a central control module (as each driver will have its own controls) can develop asynchronous behaviour (e.g. children might play with the key). The system will then be out of sync, i.e. some lamps will be on, others off or the dimming direction will differ from lamp to lamp.

The maximum cable length for synchronisation between the devices should not exceed 4 m.

Method of resynchronisation
When the drivers are switched on, press the PUSH key for more than one second (long PUSH) followed with a short push (<1 s). Now the devices are switched off, do a long PUSH, the system will now be resynchronised.“

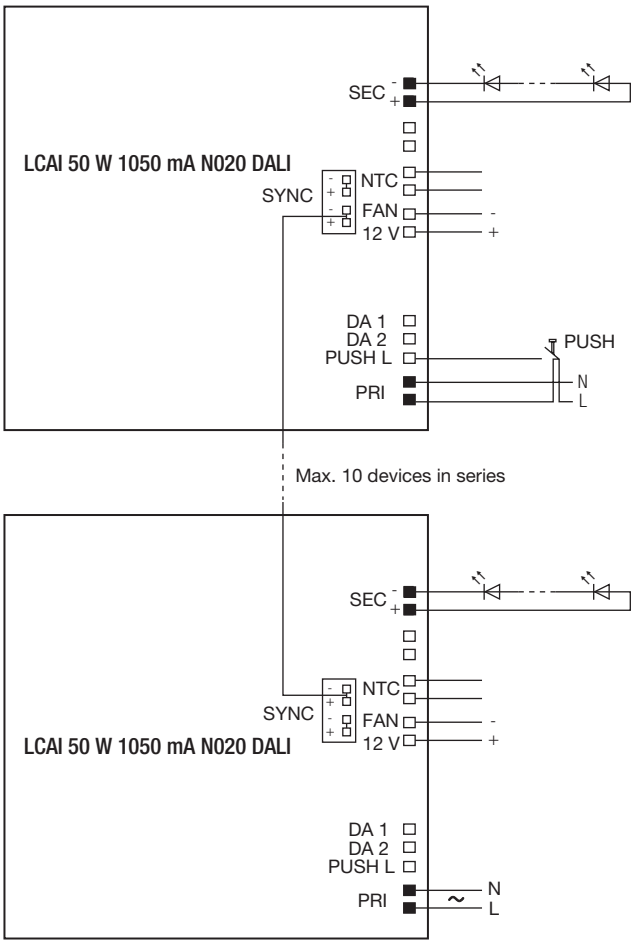
Dimming
Dimming range 1 % to 100 %
Control with:
- DALI signal
- PUSH function

Dimming characteristics

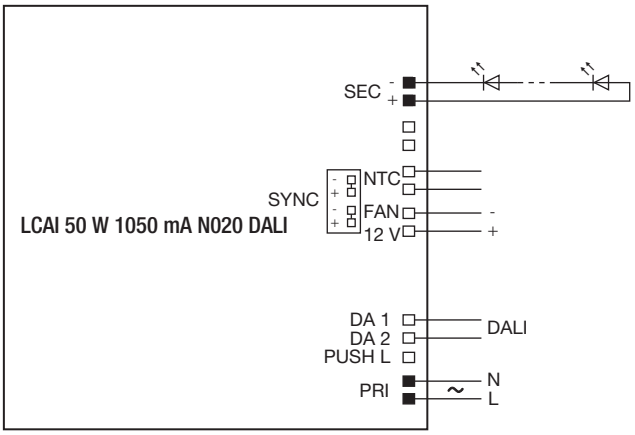


Dimming characteristics as seen by the human eye. A linear dimming characteristic can be activated optionally via DALI (DALI command: SELECT DIMMING CURVE).

Wiring diagram PUSH function



Wiring diagram DALI



Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C16	B10	B16
Installation Ø	1.5 mm²	2.5 mm²	1.5 mm²	1.5 mm²
LCAI 050/1050 N020 DALI	15	25	9	15

Wiring guidelines

- The cables should be run separately from the mains connections and mains cables to ensure good EMC conditions.
- The maximum secondary cable length at the terminals is 5 m. The LED wiring should be kept as short as possible to ensure good EMC.
- The LED modules must be operated in series on converter.
- The converter does not have polarity reversal protection on the secondary side. LED modules that do not have polarity reversal protection may be damaged if polarity is reversed.

Thermic sensor

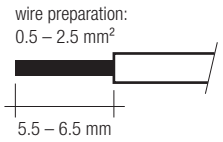
NTC value	Start operation temperature (3 V Req = 26 kΩ)	Total switch-off temperature (2,2 V Roff = 15 kΩ)
220 K	75 °C	90 °C
Component tolerances are not considered.		

A failure of the lamp can be communicated to the LED converter through the NTC prt by short-circuiting it or leaving it open (DALI command: QUERY FAILURE STATUS).

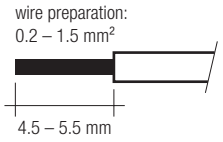
Wiring type and cross section

Strain relief for Ø 3 – 8 mm.

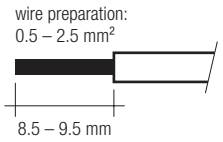
Input / Output terminal



NTC / FAN



PUSH / DA



Information about the correct handling of LEDs can be found in the TALEX(brochure "Installation instructions and guidelines" → www.tridonic.com