

## Features

### DALI Converter

- Compliant with DALI Standard (IEC62386 Part 102 & Part 206)
- Screw-less Connectors, Easy to Install
- Selectable Output for PWM / DC 0-10V / DC 1-10
- Built-in Relay to Turn ON/OFF Driver Completely (Zero Standby Current)
- Over Voltage and Short Circuit Protection

### Description

The RELI-DA01/R is a DALI to analog control signal interface which is compliant with the DALI IEC62386 standard. The output is selectable between PWM and 0-10V or 1-10V and is compatible with all RECOM dimmable LED drivers as well as other manufacturer's products. The output can control six or more LED drivers, allowing the lighting in a whole room or office to be dimmed with just one DALI address. A built-in relay can be used to switch off the LED drivers under software control to give zero no-load consumption.

The interface is AC powered (110VAC or 230VAC) and consumes typically only 1.6W in operation.

### Selection Guide

Part Number	Input Voltage (VAC)	Power Consumption (W)	DALI Bus Power Consumption (mA)	DALI Standard IEC62386	Dimming Output
RELI-DA01/R	90-264	1.6 typ.	2 max.	Part-102 Part-206	PWM or DC 0-10V DC 1-10V

### Specifications (measured at $T_A = 25^\circ\text{C}$ and nominal input voltage)

Input Voltage Range	90-290VAC 50/60Hz	
Power Consumption	1.6W typ. / 3W max.	
DALI Bus Current Consumption	2mA max.	
Suitable Electric Wire	22 AWG - 16 AWG	
PWM Frequency	500Hz typ.	
PWM High Level Voltage	9.5VDC min. / 10VDC typ. / 10.5VDC max.	
PWM Low Level Voltage	0VDC typ.	
PWM Output Current Sourcing (mA)	-60mA min. / 60mA max.	
DC 0/1-10V Output Accuracy	$\pm 3\%$	
DC Output Current Sourcing (mA)	-5mA min. / 60mA max.	
DALI Standard	IEC62386 Part-102 & Part-206	
Number of Output Channel	1	
Short Circuit Protection	(Dimming Output)	cont.
Over Voltage Protection	(DALI connector)	24V Zener Diode clamp
Operating Temperature Range (free air convection)	Ambient Temperature	-20 to +40°C
	Case Temperature	46°C
Relay Switch	1 Channel, 2A cont. / 7A peak.	
IP Rating	IP20	
Dimensions	150 x 40 x 28mm	
Weight	100g $\pm 10\%$	
Safety Standards (designed to meet)	EN61347-1 EN61347-2-13 UL8750 EN61000-3-2 Class C EN61000-4-2,3,4,5,6,11, 20 EN61547 EN55015 FCC15	
MTBF (+25°C)	using MIL-HDBK 217F	200 x 10 <sup>3</sup> hours min.

## LIGHTLINE

### DALI-Converter AC/DC

with 5 year Warranty

RECOM

## 1.6 Watt DALI- Converter



**IEC 62386-102 Compliant**  
**IEC 62386-206 Compliant**

## RELI-DA01/R

Refer to Application Notes

## Typical Characteristics

### DALI Declaration for Factory Variables (for Part 102)

Variable	Default Value	Reset Value	Range of Validity
Actual Dim Level	254	254	0, Min Level - Max Level
Power on Level	254	254	0 - 255 (Mask)
System Failure Level	254	254	0 - 255 (Mask)
Min Level	Physical Min Level	Physical Min Level	Physical Min Level - Max Level
Max Level	254	254	Min Level - 254
Fade Rate	7 (45 steps/s)	7 (45 steps/s)	1-15
Fade Time	0 (no fade)	0 (no fade)	0-15
Short Address	255 (Mask)	no change	0-63 255 (Mask)
Search Address	FF FF FF	FF FF FF	00 00 00 - FF FF FF
Random Address	FF FF FF	FF FF FF	00 00 00 - FF FF FF
Group 0-7	0000 0000 (no group)	0000 0000 (no group)	0 - 255
Group 8-15	0000 0000 (no group)	0000 0000 (no group)	0 - 255
Group 0-15	255 (Mask)	255 (Mask)	0 - 255 (Mask)
Status Information	1xx0 xxxx	0x10 0xxx	0 - 255
Version Number	1	no change	Factory-defined

x = actual value depend on the operation status

### DALI Declaration for Factory Variables (for Part 206)

Variable	Default Value	Reset Value	Received Command	Range of Validity
Dimming Curve	0	No change	0	0-1; (2 - 255 reserved)
Converter Features	0111 0101	No change	0111 0101	Factory-defined
Failure Status	0000 0000	No change	0000 0000	0 - 255
Converter Status	0000 0000	No change	0000 0000	0 - 255
Extended Version Number	1	No change	1	Factory-defined
Device Type	5	No change	5	Factory-defined
Physical min Level	1	No change	1	1-253

## Recommended LED Drivers, DALI-Bus Power Supplies and DALI Master

#### AC/DC LED Driver

RACD20-xxxD  
RACD60-xxxxA  
RACD45-xxxxA  
RACD100-xxxxA  
RACD150-xxxxA

#### DC/DC LED Driver

RCD24-xxx  
RCD48-xxx  
RBD12-xxx

#### DALI Master

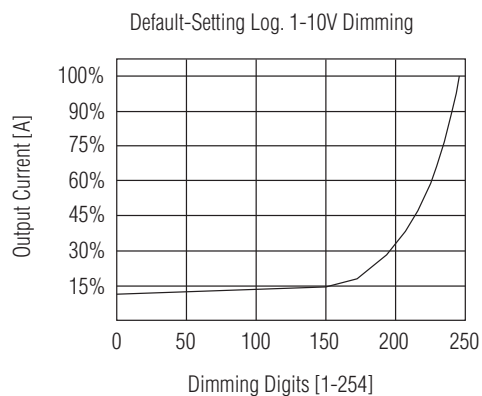
tested with DALI-USB  
Tridonic Osram\*

\*Software masterCONFIGURATOR V2.6.8.1005 Tridonic

Note:

For one DALI Converter (RELI-DA01/R) you can connect max. 6pcs of all series for RECOM AC/DC LED-Drivers with 3in1 dimming.

## Typical Characteristics



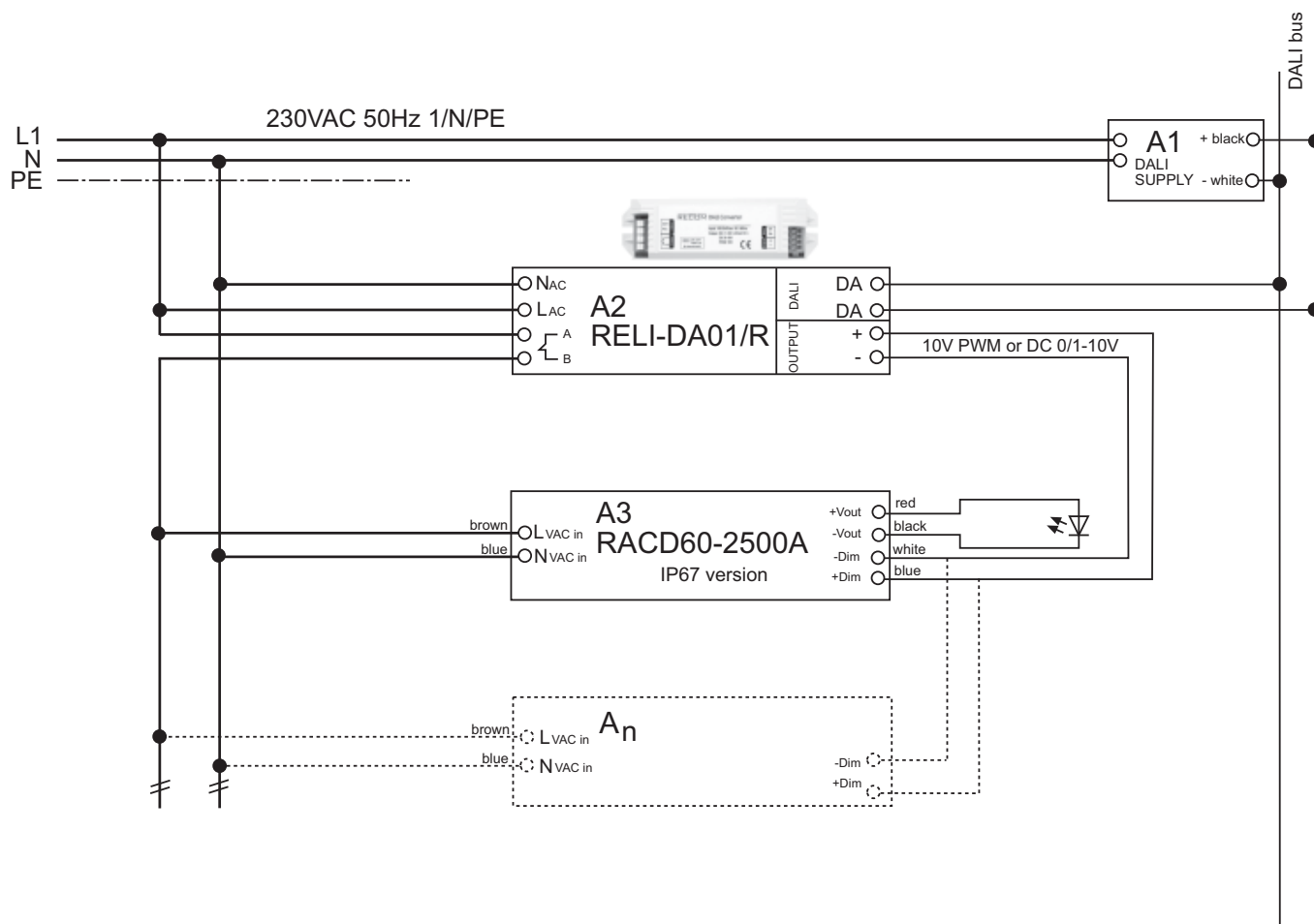
### DALI-COMAND

Logarithmic Dimming; 1-10V

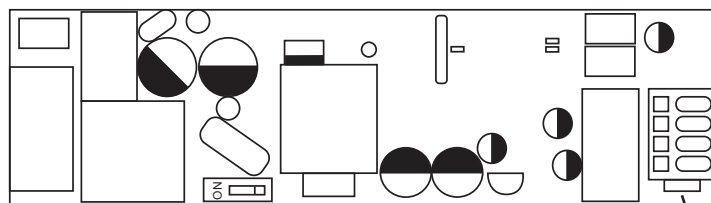
- 6 Recall MIN Level
- 272 ENABLE DEVICE TYPE X / Value: 5 dez
- 224 QUERY APP EXT Cmd224
- 257 DATA TRANSFER REGISTER (DTR) / Value: 0 dez
- 229 QUERY APP EXT Cmd229

Internal switch: OFF

## DALI Connection



## Package Style



ON / OFF  
PWM / DC  
By internal switch

Inductor LED  
flashes with  
DALI signal

ON: PWM 10V  
OFF: DC 1-10V (Default DC)  
DC 0-10V (By DALI Command-225\*)

\*DALI-Command-225  
--> Query application-oriented extension commands

Delivery setting:  
Output signal: DC 1-10V  
Dimming curve: Logarithmic

## Dimensions

