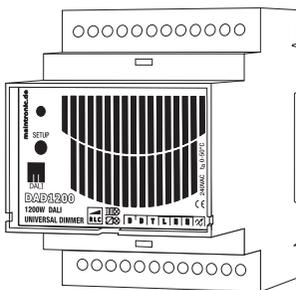




# DALI Universal Dimmer DAD1200 / DAD2400

## manual



**Item.No.:** 10.2x  
**Documentnumber:** DAD\_Dimmer\_manual\_REG\_B02\_V01\_EN  
**Erstellungsdatum:** 06 / 2015

### Safety instructions

Please read the users manual carefully before initial operation



#### Attention

- Hazard due to electric shock. The unit must only be installed by a proven electrician specialist, in accordance of all relevant regulations, safety and accident prevention directives of the country
- install the device only on places with a good ventilation and without humidity or high temperatures
- make sure to use the correct supply voltage, before operating the unit for the first time.
- don't use not dimmable lamps
- remove mains power before work on the device



#### Range of application

The unit must only be installed in a control cabinet, and may only

- be used for the intended purpose
- be installed in a dry and clean environment
- be installed in such a way that an access is possible only with a tool

### Application

Universal Digital leading-edge or trailing-edge Phase Dimmer. Equipped with auto-load-detection.

- Electronic universal dimmer
- For all kinds of luminaries, inductive, resistive and capacitive loads (R,L,C)
- Automatic load detection, leading- or trailing edge dimming
- Range: 0; 0,1 - 100%
- Minimum load: <3 Watt
- Softstart/ Fadeout
- Antiflicker
- Protection: overload, overvoltage, overtemperature

### Installation

- In distribution box rail mounted (35 mm)
- Only in compliant electrical installations

### Automatic-load-detection

Right after powering on the unit the dimmer check the connected type of load. Once the indication is ready, the connected lamp is flashing one time.

### Remarks:

- DALI is not SELV (Separated Extra Low Voltage) classified, therefore the installation instructions for low voltage is valid
- Length for DALI signal wire may not be longer than 300m (at 1.5mm<sup>2</sup> cable diameter) or 2V voltage drop.

### Cable type and diameter:

- Wiring could be single or fine stranded wire with end sleeves from 0,75mm<sup>2</sup> up to 2,5 mm<sup>2</sup>



## Dimming of fluorescent lamps

Compact fluorescent lamps can not be dimmed, we recommend to change the lamps with energy-saving LED technology.

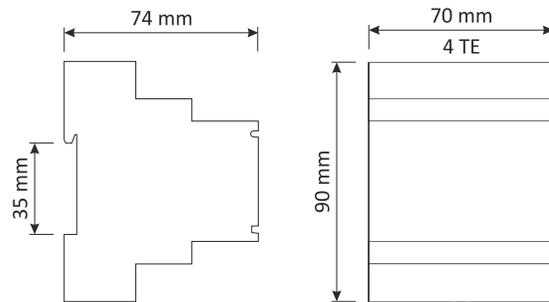
## LED-Status indicator

The LED shows the status of the dimmer:

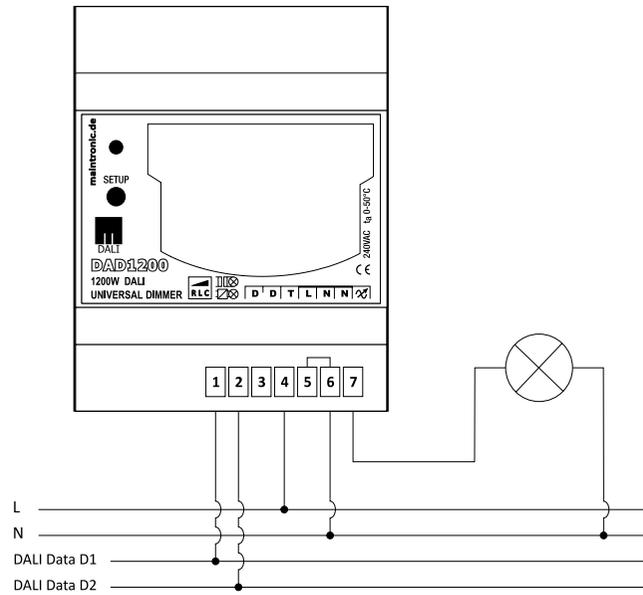
permanent on - in operation

blinking slowly - switch-button is pressed  
1x/Sec. - overload/ overtemperature  
2x/Sec. - overcurrent / short circuit  
5x/Sec. - Shutdown / safety turn-off

short blinking - DALI telegramm received



## DAD-series diagramm



connectors:	1	=	D	DALI Data
	2	=	D	DALI Data
	3	=	NC	Not connected
	4	=	L	mains 230V AC
	5	=	N	Neutral
	6	=	N	Neutral
	7	=	⚡	Output (dimmer phase)

## DALI-specification

DALI (Digital Addressable Lighting Interface) is a data protocol that control lighting in building-automation. DALI is the definition for a standard digital communication interface with modules of different manufacturers, specified in IEC standard 60929.

## Groups and scenes

In each DALI circuit 16 groups can be formed, each group can assign 16 scenes. One scene encompasses the condition or the brightness of a short-address.

## DALI (device-specific)

The Universal-Dimmer of the DAD-series work with the DALI standard and can be configured by any DALI-Controller. A DALI short-address can adjusted with the device search procedure of your DALI-controller.

Please follow the users manual of your DALI-controller for the configuration.

DALI-function „LAMP FAILURE“ is not implemented.  
DALI-module-type: fluorescent lamp - Device type 0

## Physical selection

With a normal electronic ballast (EB) the addressing can started with taking out the bulb. These „taking out“ is simulated by pushing the SETUP-button of the device.

(Please note - not every DALI-controller support the physical selection).

Approach a physical selection:

1. choose DALI-commando „PHYSICAL SELECTION“
2. push the SETUP-button once
3. device is taugted



Note: To avoid failures, don't push the button for a longer time.

## Technical data

		DAD1200	DAD2400
Mains	Operation Voltage	215V – 240V AC 50/60 Hz	
	Fuse	max. 16A	
Output	Dimmed phase	Max. 1200W (tungsten)	Max. 2400W (tungsten)
	Minimum load	6W	
	Power consumption (ON / dimming)	1,2W / 5,3W (fan + 1W)	
Control Inputs	DALI	16V (9,5-22 V Manchester Code) NYM 2x1,5 mm <sup>2</sup> (H0VV 2 x 1,5mm <sup>2</sup> )	
Dimming Range		0; 0,1% - 100%	
Protection	Cooling/Temperature management	Fan activation: >52° C - ambient temperature	
	Temperatur switch off Current, short circuit	Derating: >85° C , 10W/ ° C 120°C (reversible) Cascaded switch off (reversible)	
Terminals	Screw terminal	0,2 ... 2,5 mm <sup>2</sup> fine stranded 0,2 ... 4 mm <sup>2</sup> single wire	
	Tightening torque	max. 0,6Nm	
Design	Mounting rail (35 mm)	DIN EN 60715	
	Dimensions (H x W x D) Mounting depth	90 x 70x 74 mm 74 mm + 6 mm distance for ventilation	
Housing / color		Plastics, grey	
Weight		0,202 kg	
Operation controls		DALI physical selection button	
Display elements		LED	
Environment	Type of protection according DIN EN 60529	IP20 10mm/5KV Protection class II	
	Temperature (ambient) Humidity not condensing	t <sub>a</sub> = 45° Celsius 5 - 80%	
Approbation	DALI IEC 62386, Device Type 4	IEC 062386-101; IEC 062386-102 According EMV and Low Voltage Directive	
	CE-Mark	EN 60669; EN 60669-2-1; EN 61000-6-1; EN 61000-6-3 RoHS	

Important: Please note installation and operation Information.

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## DALI-Commandos

DALI Parameter	Value-range	Factory setting
Power On Level	0 – 100 % (0 – 254) + MASK	0
	Brightness after powering on the device (DALI Value 255 = MASK)	
System Failure Level	0 – 100 % (0 – 254) + MASK	254
	Brightness at a present DALI system failure (DALI Value 255 = MASK)	
Min Level	0 – 100 % (0 – 254)	1
	Minimum brightness	
Max Level	0 – 100 % (0 – 254)	254
	Maximum brightness	
Fade Time	from 0 – 90,5 seconds	< 0,7 S
	Fade time after changing the brightness	
Fade Rate	von 1 – 72 Schritten/s	45 Schritte/s
	Steps after changing the brightness with DALI Commando darker or brighter	



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