

LIGHT MANAGEMENT IS VIVARES



Application guide RELAY DALI-2

Status: November 2025 | LEDVANCE Subject to change without and notes. Errors and omission excepted.



Application guideDALI-2 Relays



RELAY DALI-2 RM



EAN: 4099854709159



RELAY DALI-2 CM



EAN: 4099854709135



Application guide DALI-2 Relays

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Application guide Relay DALI-2 RM – Features & benefits

Product Features

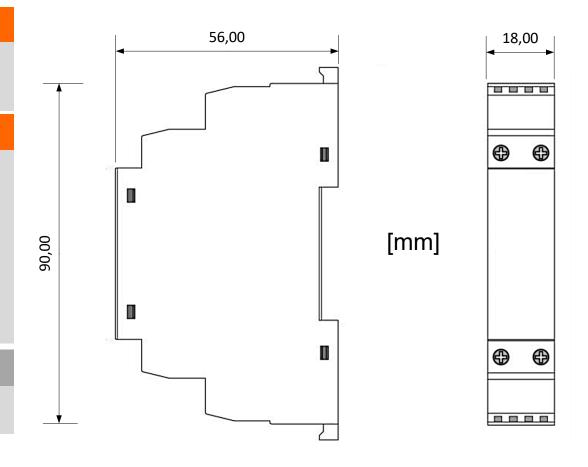
- Switching of non-dimmable ohmic loads up to 16A or 3.000VA via DALI
- Housing for DIN rail mounting (1TE / 1 division)
- Manual override option via integrated switch actuator

Product Benefits

- · Suitable for high inrush currents up to 350A
- · More than 50.000 switching cycles at full load
- Supplied via DALI, no line voltage connection required
- Wide ambient temperature range
- Standard Circuit Breaker housing suitable for 35mm DIN rails
- DALI state indication via integrated LED
- Special mode for standby power switch off in DALI installations
- Fully certified <u>DALI-2 device type 7</u>
- Configurable additional functional features (e.g. delayed switching)

Application areas

• Switching of non-dimmable loads such as luminaires, fans, heaters, projectors, pumps etc. in office-/shop-/hospitality-and residential areas





Application guide Relay DALI-2 CM – Features & benefits

Product Features

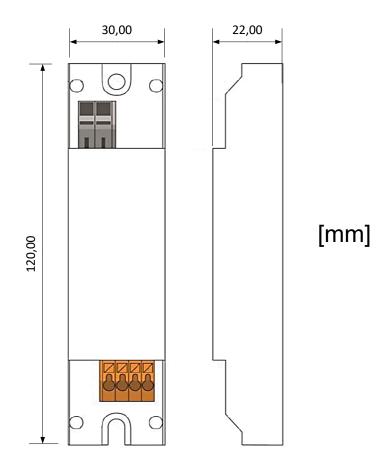
- Switching of non-dimmable ohmic loads up to 16A or 3.000VA via DALI
- Housing for independent mounting or luminaire integration

Product Benefits

- Suitable for high inrush currents up to 350A
- · More than 50.000 switching cycles at full load
- Supplied via DALI (no line voltage connection required)
- · Wide ambient temperature range
- Fully certified DALI-2 <u>Device type 7</u>
- Configurable additional functional features (e.g. delayed switching)

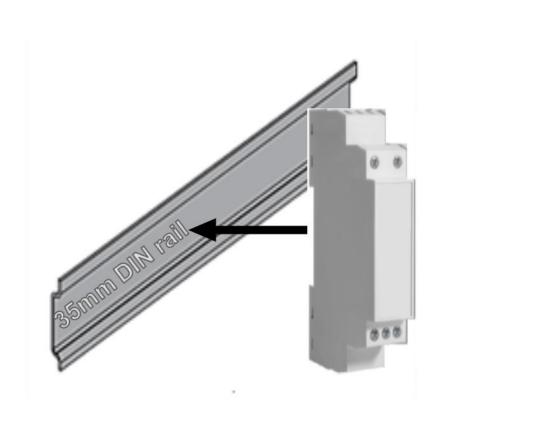
Application areas

• Switching of non-dimmable loads such as luminaires, fans, heaters, projectors, pumps etc. in office-/shop-/hospitality-and residential areas



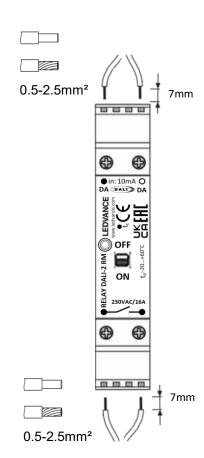


Application guide Relay DALI-2 RM – DIN rail mounting / wire connection



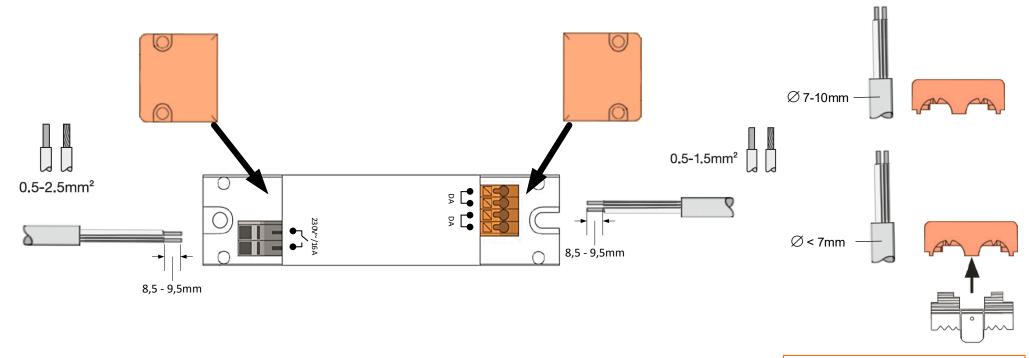


Switch off mains and DALI supply during installation!





Application guide Relay DALI-2 CM – Mounting / cable connection



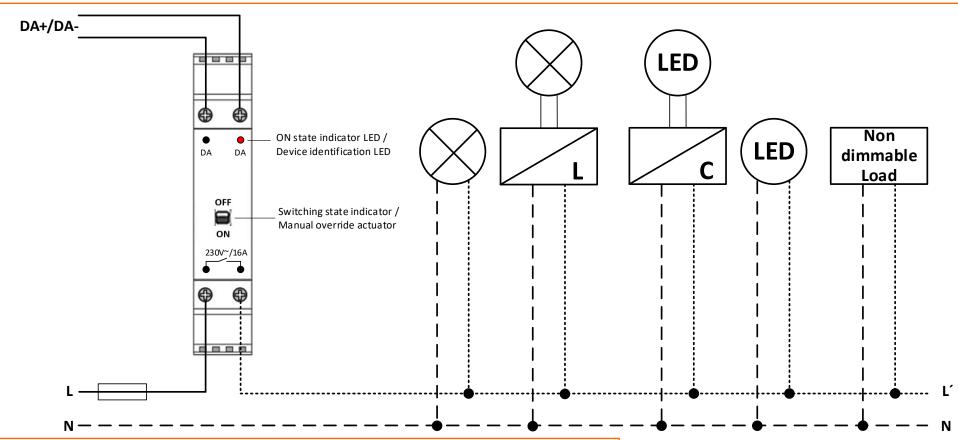


Switch off mains and DALI supply during installation!

For smaller cable diameters please insert the clamping part into the end caps



Application guide Relay DALI-2 RM – wiring diagram relay as switching actuator

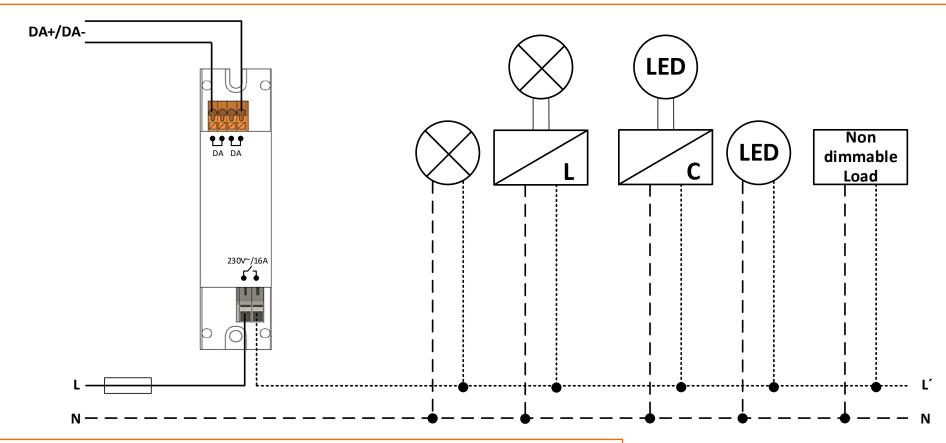




Switch off mains and DALI supply during installation!



Application guide Relay DALI-2 CM – wiring diagram relay as switching actuator





Switch off mains and DALI supply during installation!



Application guide RELAY DALI-2 RM/CM

Questions and Answers

Q1: Can the Relay be used for switching DC voltage?

A1: The RELAY DALI-2 RM/CM is only suitable for switching AC voltage

Troubleshooting

Q10: Relay does not switch ON if light level is > 0

A10: Ensure that a) no thresholds are set that prevent switching on at lower levels and b) "ignore Broadcast commands" feature is disabled

Q2: The relay does not always respond to DALI commands

A2: The relay requires approximately 10mA DALI current at the switching moment; please ensure that the DALI bus power supply used is sufficiently dimensioned. The switching frequency is limited to a maximum of 1 Hz; switching commands sent more frequently than once per second may not be executed.



Application guide Relay DALI-2 RM / CM

Technical data Relay DALI-2 RM Relay DALI-2 CM Max. Switching voltage (AC) 230V 230V Max. permanent load contact current 16A 16A Max. inrush current 350A 350A 3000VA 3000VA Nominal load Max. switching frequency 1Hz 1Hz Allowed wire diameter switching output 0.5-2.5mm² 0.5-2.5mm² 0.5-1.5mm² Allowed wire diameter DALI input 0.5-2.5mm² Protection class Ш IP 20 IP 20 Protection type -20...+60°C -20...+60°C Ambient temperature range Humidity range 15-90% 15-90% Max. DALI input current 10mA 10mA Dimensions (I x w x h) 90x56x18mm 130x30x22mm Net weight 52g 54g 50.000h / > 50.000 switching cycles 50.000h / > 50.000 switching cycles Lifetime



APPLICATION GUIDEDALI-2 RELAYS

Information for EXPERT USERS



Application guide Switch off mains and DALI supply when connecting the device! Relay DALI-2 RM/CM – extended feature configuration

Hard and Software requirements

For configuration of extended features of the Relay via the DALI line, a Lunatone DALI USB device and a Windows PC with Lunatone DALI Cockpit software installed is required. DALI Cockpit can be downloaded free of charge via following link:

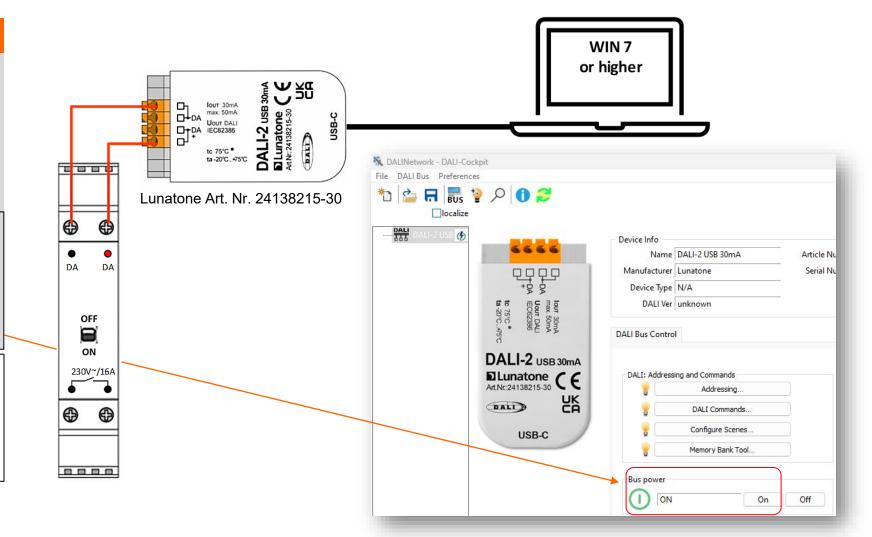
https://www.lunatone.com/en/product/dali-cockpit/

Recommended setup preparation:

- If already connected to a DALI system, <u>switch</u> <u>off mains and DALI supply</u>, then disconnect Relay from the DALI line
- 2. Connect the DALI <u>input</u> of the Relay with the DALI-2 USB Adapter
- 3. Switch ON the Bus power of the USB adapter

Hints:

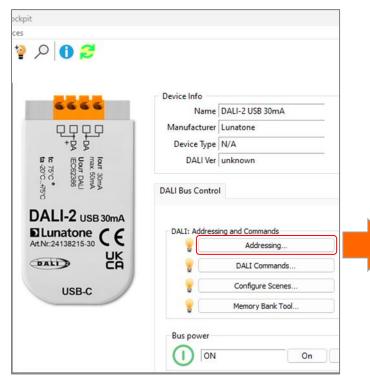
- Ensure that DALI connection to the installation is disconnected before switching on the DALI Bus Power of USB adapter
- Polarity of DALI connection between DALI USB Adapter and Relay is not relevant





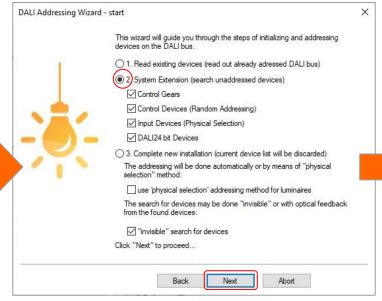
Application guide Relay DALI-2 RM/CM – extended feature configuration

Setup steps: Accessing the Relay



Step 1

Click on "Addressing"



Step 2

Select "2. System Extension" and click on "Next" (In this step an un-addressed Relay will get a temporary short address which should be removed when configuration was done (see Step 6)

Step 3

DALI Addressing Wizard - searching for installed devices

Now searching for DALI ballasts:

DALI USB - S/N 114696

automatic addressing.

Checking for devices:

 Wait until device search process is completed and then click on "Finish"

Next

User action required

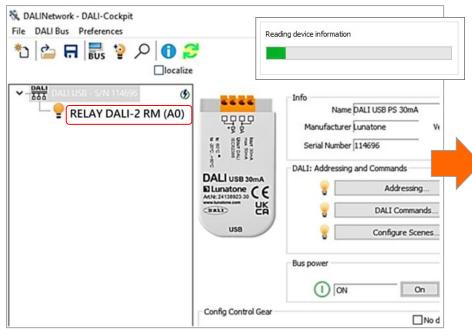
Searching for input devices: Double press button on device for

Finish



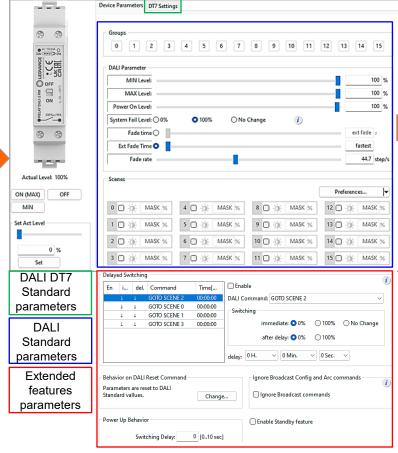
Application guide Relay DALI-2 RM/CM – extended feature configuration

Setup steps: Accessing the Relay



Step 4:

- Click on the device entry "RELAY DALI-2" to start device readout
- After readout is completed, the device parameter settings will be displayed



Step 5: Change DALI Standard parameter and/or Extended parameter settings as desired



Step 6:

N DALINetwork - DALI-Cockpit

File DALI Bus Preferences

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Save parameter settings to the Device

Step 7:

(only for new / not commissioned devices)
If Relay was <u>not</u> already commissioned /
addressed in the DALI installation before,
remove the device address by a <u>right</u> click on
the device entry "RELAY DALI-2" and select
"Delete address"

Hint:

a new / not yet commissioned device typically has the address "(A0)" behind the device name



Application guide Relay DALI-2 RM – DALI DT7 standard feature: Switching thresholds

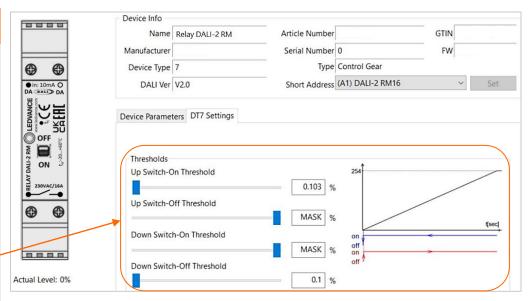
Switching thresholds **overview**

Switching thresholds allow to set the DALI light level when the relay contact is open and when it's closed.

- Ex-factory / after RESET* the contact will be open at light level 0 (OFF) and closed at light levels > 0 (ON)
- A threshold can be set to MASK (=disabled) or set to a specific dimming level between 0,1...100% (=enabled)
- Thresholds are dimming direction dependent; Means they are only valid if the dimming direction matches with the type of the threshold (By this e.g. a switching hysteresis can be achieved).
- 4 different thresholds can be set:
 - a) A Switch ON threshold for dimming direction Upwards
 - b) A **Switch OFF threshold** for dimming direction **Up**wards
 - c) A **Switch ON threshold** for dimming direction **Down**wards
- d) A Switch OFF threshold for dimming direction Downwards

Hint*:

- To avoid unintended RESET of the threshold setting, settings can be locked (Please see chapter Extended features "Behaviour on DALI RESET")
- If the Standby feature (see Extended features) is enabled, a threshold parameter setting is not possible



DALI cockpit screenshot: DT7 threshold settings (RESET/Ex-factory state)



Application guide Relay DALI-2 RM/CM – Extended feature: Switch off Standby power operating mode

Enabling the standby power switch off mode

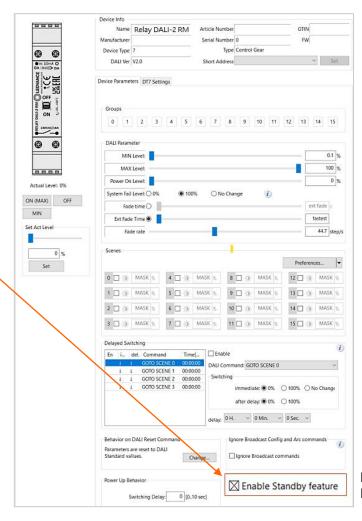
The DALI-2 RM Relay can be used to switch off the standby power of DALI luminaires in OFF state.

If the Standby feature is enabled via the Cockpit software, the Relay records the light level relevant DALI switch On command and repeats it for 3s after switching on the mains power of the connected devices via the relay contact

Ex-factory setting: Standby feature disabled

Hint:

- If the Standby switch feature is enabled the DT7
 parameter setting of switching thresholds is disabled automatically!
- The "Standby feature" setting is <u>not</u> affected by a DALI RESET



DALI cockpit screenshot: Extended Setting "Standby feature"



Application guide Relay DALI-2 RM – Extended feature: Delayed switching

Delayed switching overview

For DALI SCENES 0, 1, 2 and 3 a delayed switching ON or OFF can be enabled

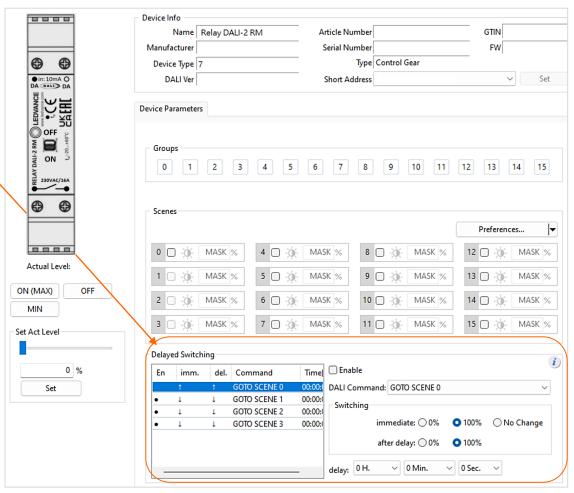
- If delayed switching for the corresponding scene is enabled, the normal setting for this scene does not apply anymore and is replaced by the setting 0; 100%; No Change (=MASK) as "immediate" action followed by the "delayed" action after the selected delay time.
- Ex-factory / after RESET* the delayed switching is disabled

Example use case:

■ To reduce the stress to the mains-supply in a bigger installation by switching ON all loads at the same time when a scene 1 is recalled, enable delayed switching for GOTO SCENE 1. Set "immediate" to "No change", "after delay" to "100%" and delay e.g. to 5s.

Hint*:

- The "Delayed switching" setting is <u>not</u> affected by a DALI RESET
- To avoid unintended RESET of customized scene settings itself, scene values can be locked (Please see chapter Extended features "Behaviour on DALI RESET")



DALI cockpit screenshot: Extended Setting "Delayed switching"



Application guide Relay DALI-2 RM – Extended feature: Behaviour on RESET

RESET behavior overview

The behaviour of the relay <u>when receiving a DALI RESET command</u> can be customized with the following setting options:

a) "DALI Standard" (=ex-factory setting)

All DALI parameters that have a check mark will be reset to their DALI Standard values all unchecked parameters will remain unchanged when a DALI RESET is received.

b) "Custom Settings"

All parameters that have a check mark will get the actual values as RESET values when the "Save" button is pressed. RESET values of all unchecked parameters remain unchanged.

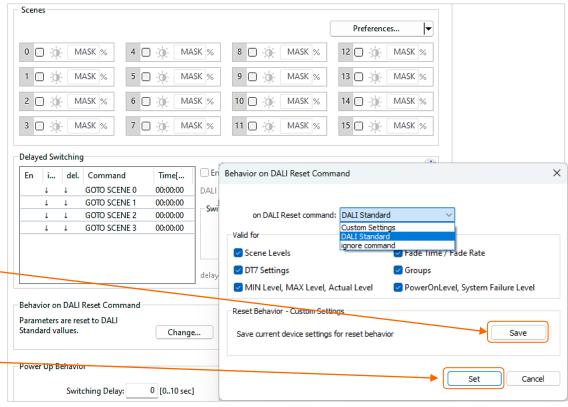
c) "ignore Command"

All parameters that have a check mark will remain unchanged when receiving a RESET command. All unchecked parameters will be RESET to their current RESET values. RESET value can be set according a) and b)

Hint:

After defining the RESET behaviour of the relay press the "Set" button to transfer and store it to the device as final step.

The "Behaviour on RESET command" setting is not affected by a DALI RESET



DALI cockpit screenshot: Extended Setting "Behaviour on DALI RESET Command"



Application guide Relay DALI-2 RM/CM – Extended feature: Delayed switching at power up

Delayed switching at power up **overview**

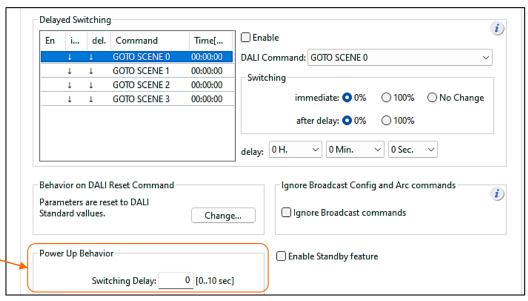
The Relay contact itself is bistable, means without power the switching state ON (contact closed) or OFF (contact open) is maintained.

At power up the switching state is updated immediately according to the DALI POWER ON LEVEL setting within ~ 500ms. This update of the switching state can be delayed by this extended feature to up to 10s, e.g. to distribute mains load peak demand in bigger systems.

Ex-factory setting: no delay (0s)

Hint:

The "Switching Delay" at power up setting is not affected by a DALI RESET



DALI cockpit screenshot: Extended Setting "Delayed switching at power up"



Application guide Relay DALI-2 RM/CM – Extended feature: Ignore Broadcast commands

Ignore Broadcast commands *overview*

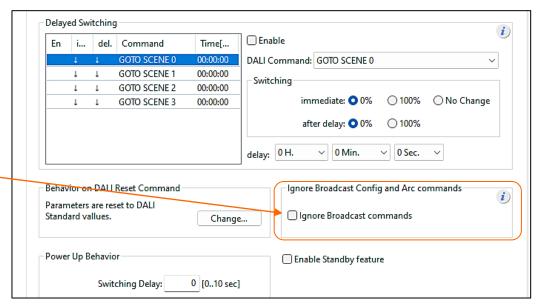
As all DALI devices, the Relay reacts to commands with matching short or group addresses and to all broadcast commands.

With this parameter a change of switching state or configuration settings by broadcast addressed can be disabled (e.g. to avoid a switch OFF/ ON of a connected non-dimmable load by central ON/OFF commands).

Ex-factory setting: disabled (broadcast commands will be executed)

Hint:

The "Ignore Broadcast commands" setting is not affected by a DALI RESET



DALI cockpit screenshot: Extended Setting "Ignore Broadcast commands"



THANK YOU