

DALI-2 Jalousie



DALI module to control
jalousie modules with 230V ~
control inputs for Up and Down



Art. 86458676-DE (remote ceiling)
Art. 86458676-HS (DIN rail)

Datasheet DALI Jalousie see

https://www.lunatone.com/wp-content/uploads/2018/03/DALI_Jalousie_EN_D0029.pdf

DALI Jalousie Interface

Overview

- Suitable for the control of blind modules with separate 230V input for Up and Down via DALI
- interlocked outputs
- for currents of up to 4A
- The module is controlled via the DALI level to a corresponding position (% of the total travel). The DALI commands RECALL MAX and 100% correspond to fully open, and RECALL MIN and 0.1% to fully closed. The process can also be stopped with OFF or MASK. UP and DOWN each open or close respectively for 200ms.
- The module is supplied directly via the DALI line, no additional supply required
- The interface has a DALI address, can be added to groups and has 16 scenes that can be used to program and recall specific tilt angles and positions of the blinds.
- The previous version DALI Jalousie (FW 1.) cannot be updated to the DALI-2 Jalousie FW 5. – [datasheet and function description](#)

Specification, Characteristics

Type	DALI-2 Jalousie	
article number	86458676-HS	86458676-DE
electrical data		
power supply	via DALI	
typ. current consumption	4 mA	
control input	DALI	
Input (voltage and frequency)	120/240VAC 50/60Hz	
output	120/240V (Up or Down, interlocked)	
relay contact switching voltage	250Vac	
nominal load and current	1000VA / 4A	
operating cycles with 4A/250Vac, resistive	10 ⁵	
max. switching frequency relay	0.2 Hz	
input: DA,DA		
input type	DALI control input	
marking terminals	DA, DA	
voltage range	9,5Vdc ... 22,5Vdc (according to IEC62386)	
DALI address	1	
DALI-2 address	none	
general data		
mounting	DIN rail	remote ceiling
dimensions	98mm x 17,5mm x 56mm	120mm x 30mm x 21mm

rated max. temperature tc	75°C
protection class	II in intended use
protection degree	IP20

environmental conditions

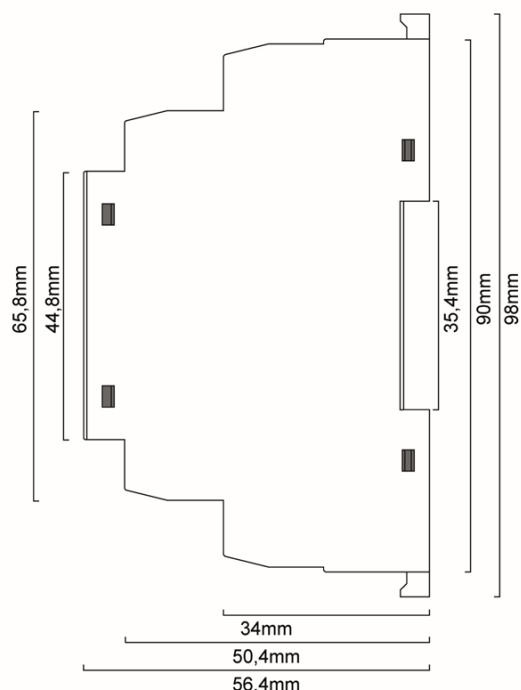
storing / transportation temperature	-20°C ... +75°C
operational ambient temperature	-20°C ... +60°C
rel. humidity, none condensing	15% ... 90%

terminals

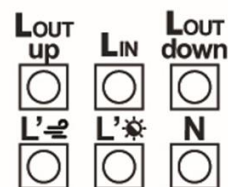
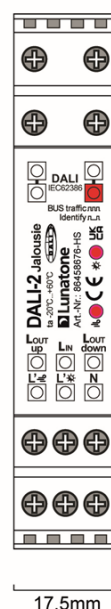
connection type	screw connector	spring terminal connector
wire size solid core	0,5 ... 2,5 mm ² (AWG20 ... AWG14)	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size fine wired	0,5 ... 2,5 mm ² (AWG20 ... AWG14)	0,5 ... 1,5 mm ² (AWG20 ... AWG16)
wire size using wire end ferrule	0,25 ... 1,5 mm ²	0,25 ... 1 mm ²
stripping length	7 mm / 0,27 inch	8,5 ... 9,5mm / 0,33 ... 0,37inch
locking torque	0,5 Nm	-
release of wire	open screw	push button

standards

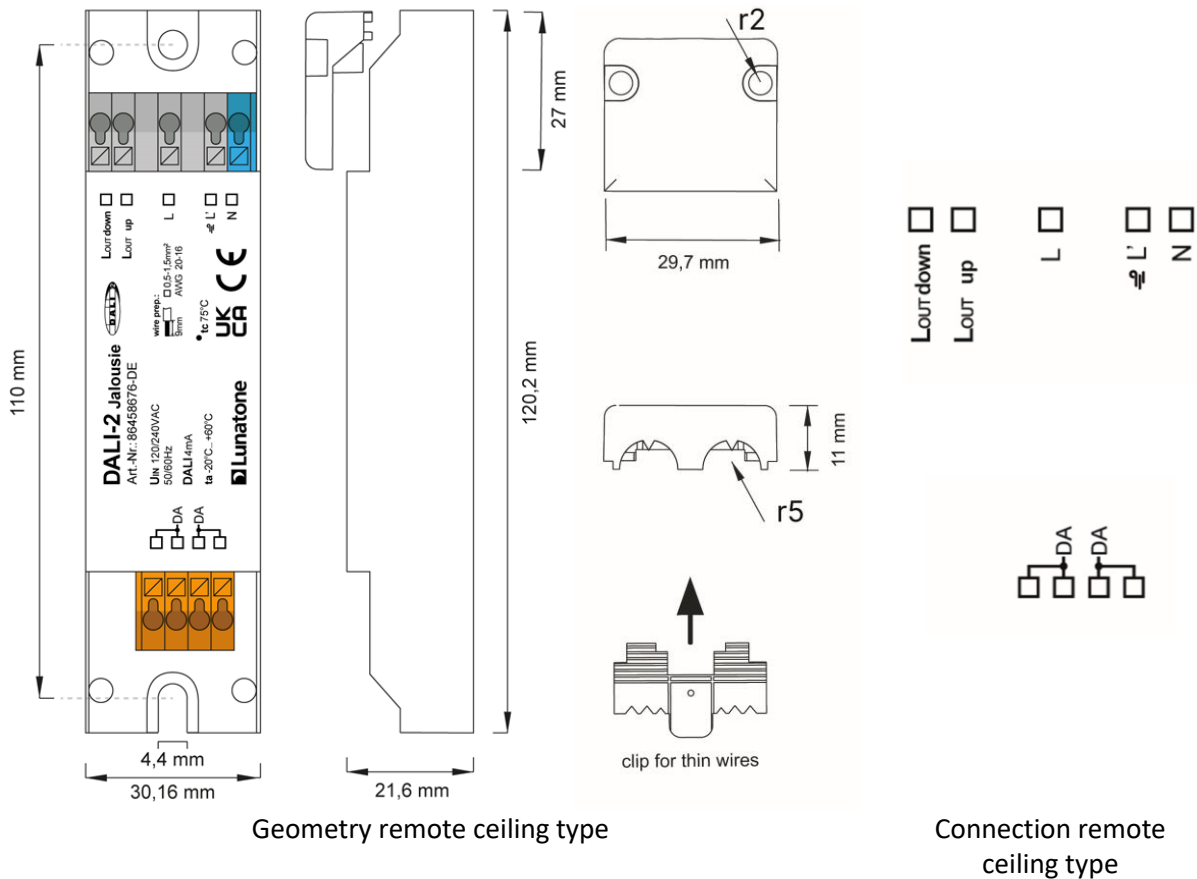
DALI	EN 62386-101
EMV	EN 61547, EN 50015 / IEC CISPR15
Safety	EN 61347-2-11, EN 61347-1
markings	DALI-2, CE, UKCA



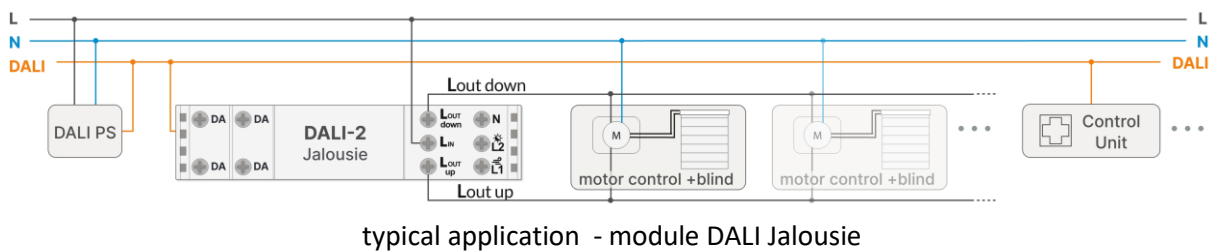
Geometry DIN rail type



Connection DIN rail type



Typical Application



Factory Default Settings

On delivery DALI-2 Jalousie module reacts to commands to its own DALI address. The module does not respond to broadcast DALI control commands, apart from configuration of groups (assign/unassign a group) which is possible broadcast. The DALI-2 Jalousie scene behaviour is deactivated on delivery. The device configuration can be changed via the [DALI Cockpit](#) and adapted to the current application.

	Factory default	DALI Standard
Min Level	0.1% *	0,1%
Max Level	100% *	100%
Power on Level	MASK – no change	100%
System Failure Level	MASK – no change *	100%
Scene values:	all scenes: MASK	all scenes: MASK
Behaviour at DALI RESET command	set DALI Standard values, see column 2	N/A (remains unchanged)
Ignore broadcast commands	enabled	N/A (remains unchanged)
Inverted blind position & slat rotation	disabled	
Preserve slat rotation on level commands	disabled	N/A (remains unchanged)
Slat Rotation	disabled	N/A (remains unchanged)
Wind sensor input	enabled, wind = 230V on input L'⚡ behaviour on “wind”: open blinds activation time: 30 seconds behaviour on “no wind”: last active activation time: 20 minutes	N/A (remains unchanged)
Light sensor input	enabled, light = 230V on input L'⚡ behaviour on “light”: close blinds activation time: 10minutes manual control allowed behaviour on “no light”: no change activation time: 10 minutes manual control allowed	N/A (remains unchanged)

**the values for Min, Max and System Failure Level are fixed in normal operating mode and cannot be changed*


Installation

- The DALI Jalousie module is directly connected and supplied by the DALI bus, no additional power supply is required. A DALI bus power supply (e.g. DALI PS) is required.
- The connection to the DALI terminals can be made regardless of polarity.
- The module is designed for a continuous load of 1000VA.
- L'⚡ and L'⚡ switching input for e.g. wind or light sensors
- The wiring should be carried out as a permanent installation in a dry and clean environment.

- Installation may only be carried out in a voltage-free state of the system and by qualified specialists.
- National regulations for setting up electrical systems must be followed.
- The DALI wiring can be realised with standard low-voltage installation material. No special cables are required.
- Only 1 wire may be connected to each terminal. When using double wire end ferrules, the connection capacity of the terminal must be considered.



Attention: The DALI-signal is not classified as SELV circuit (Safety Extra Low Voltage). Therefore, the installation regulations for low voltage apply.

-  The voltage drop on the DALI line must not exceed 2V at maximum length (300m) and maximum bus load (250mA).

Addressing and Configuration

- Upon initial startup, the device automatically performs a calibration run (if no blind motor is connected when the device is started, the calibration run will be attempted again on the next restart). The calibration can be repeated via the DALI cockpit if necessary. After the calibration, the device can be operated with the factory settings.
- The previous version DALI Jalousie (FW 1.) cannot be updated to the DALI-2 Jalousie FW 5. . – [datasheet and function description](#)
- Addressing and changes to the factory settings, such as setting the effective range and functions, are possible with the [DALI Cockpit Software](#) (Windows PC).
- When using the [DALI Cockpit Software](#), the PC must be connected to the DALI bus via a suitable interface module ([DALI-2 USB](#); [DALI USB](#), [DALI-2 WLAN](#), [DALI-2 Display](#), [DALI-2 IoT](#), [DALI 4Net](#), [DALI SCI RS232](#)). The DALI-2 Jalousie module is automatically recognised by the DALI Cockpit during the addressing process and listed in the device overview. On selection the device configuration can be made.
- For localisation the DALI Jalousie can be controlled. Alternatively, the serial number attached to the device, is visible in the DALI Cockpit section “device info”. When a DALI Identify command is received, the blind moves up and down, additionally on the DIN rail version, the LED blinks slowly.

Function

The DALI-2 Jalousie can be controlled by the assigned DALI address. It converts DALI commands in up/down commands to the blind motor control. The blind assumes the position according to the DALI level, where 0.1% or MIN corresponds to a closed position and 100% or MAX to an open position. The 230V motor control signals (for up and down) are interlocked, that means that at any time only one of those signals is applied to the blind motor.

Reaction of the module to DALI-commands:

DALI-command	Jalousie control signal	Lout-up	Lout-down
RECALL MAX	UP	230V	0V
RECALL MIN	DOWN	0V	230V
OFF / DAP 0 / MASK	STOP	0V	0V
UP*	UP for 200ms	230V for 200ms	0V
DOWN*	DOWN for 200ms	0V	230V for 200ms
Direct Arc Power X (level 0.1 - 100%)	Move Position to DALI Level X (0-100% of complete travel)		
GOTO SCENE X	scene commands can be used for the recall of custom profiles see section “scenes”		

* When replacing a DALI Jalousie module UP and DOWN commands need to be changed to MAX and MIN respectively to achieve the same behaviour as with the DALI Jalousie device.

To adapt the module to the specific blind, various configuration options and scene settings are available. These can be configured using the DALI Cockpit software tool, see Figure 1. The functionality is described in the following sections.

Adjustable Behaviour on DALI Reset

Behavior on DALI Reset Command

Parameters are reset to custom values.
 Change...

The response to a DALI reset command is configurable. The following options are available:

- *Ignore command*: the DALI reset command does not trigger any changes to the device settings
- *DALI standard*: the selected device settings are reset to the values defined in the DALI standard (see table delivery default- second column: DALI standard values)
- *Custom settings*: the current device settings can be saved. With a DALI Reset command, the selected parameters (4 check boxes) are then reset to these saved values.

Ignore Broadcast Commands

Ignore Broadcast Config and Arc commands

☒ Ignore Broadcast commands

The DALI Jalousie interface does not react to broadcast commands in factory default state. However for the recall of profiles this restriction can be removed by deselecting the checkbox "Ignore Broadcast".

Invert Blind Behaviour

These options allow you to invert the direction of travel of the blind for the respective DALI commands. This can be used to correct the behaviour of the blind if the motor is wired in a crossed configuration.

- ☐ Invert blind position
- ☐ Invert slat rotation

Calibration

Start Calibration

The Calibration can be used to calculate the travel time of the blind. On selection the blind will be moved to the lowest – the highest and again the lowest position.

Slat Rotation

The time for a full slat rotation can be set – correct timing allows precise slat settings via scenes and

☒ Enable slat rotation

Turning time: 2500 ms
 Test turn time

When selecting "preserve slat rotation", on moving the blinds, the initial slat tilt angle will be restored after the position of the blinds is changed.

☐ Preserve slat rotation on level commands

Scene settings

For each of the 16 scene commands, a blind position (0-100%) and the behavior of the slats can be set.

8

☒ Position
 set to 12,34 %

☐ Rotation
 turn to 80 %

The position options are:

- set to a position level ranging from 0% (fully closed) up to 100% (fully open)
- do not change the position

The slat behavior options are:

- Rotate slats by x%
- Rotate upwards by x%
- Rotate downwards by x%
- Do not rotate

Do not turn

Turn to:
 Turn up by:
 Turn down by:
 Do not turn

To use the scenes, each must be activated by selecting the checkbox in the corner.

For the correct scene behaviour, the travel time needs to be calibrated, and if using slat rotation, the slat rotation time needs to be set.

Device Info

Name	DALI-2 Jalousie	Article Number	86458676-HS	GTIN	9010342011238
Manufacturer	Lunatone	Serial Number		FW	5.0
Device Type		Type	Control Gear		
DALI Ver	V2.0	Short Address	(A1) DALI-2 Jalousie		Set

Device Parameters

Inputs

Groups

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Behavior on DALI Reset Command

Parameters are reset to custom values.

Change...

Ignore Broadcast Config and Arc commands

☒ Ignore Broadcast commands

☐ Invert blind position

☐ Invert slat rotation

☐ Preserve slat rotation on level commands

☒ Enable slat rotation

Turning time: 2500 ms

Test turn time

Start Calibration

Scenes

0	<input type="checkbox"/>	Position	set to		%	8	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
1	<input type="checkbox"/>	Position	set to		%	9	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
2	<input type="checkbox"/>	Position	set to		%	10	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
3	<input type="checkbox"/>	Position	set to		%	11	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
4	<input type="checkbox"/>	Position	set to		%	12	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
5	<input type="checkbox"/>	Position	set to		%	13	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
6	<input type="checkbox"/>	Position	set to		%	14	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %
7	<input type="checkbox"/>	Position	set to		%	15	<input type="checkbox"/>	Position	set to		%
		Rotation	turn to		0 %			Rotation	turn to		0 %

DALI Parameters

MAX Level		100 %
MIN Level		0.1 %
Power On Level		100 %
System Fail Level		100 %

Figure 1 DALI Cockpit Tab Device Parameters

Sensor Switching Inputs

The two switching inputs L' and L' can be used as wind or light sensor input. The following settings are available:

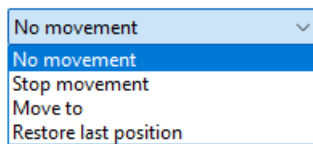
Via the selection "wind/light present on input": 230V or 0V it can be chosen if the input is normally open or closed.

The input L' is intended for wind sensor input, if wind is detected manual control of a user is disabled as long as the state wind is active.

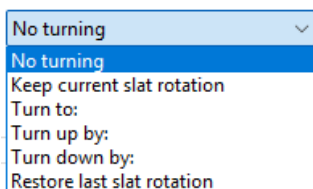
The input L' is intended for light sensor input, it can be configured if manual control is always allowed (delivery default) or is blocked in either state.

For each state "wind" / "no wind" / "light" / "no light" the behaviour of the DALI-2 Jalousie module can be defined in terms of blind position and slat rotation.

Blind Position: the behaviour of the module can be set to stop movement, move to a defined position x %, or restore the last position.



For the slat rotation can be set similarly to the scene settings:



Additionally it can be set via the **Activation time** how long the state needs to be active for before the defined behaviour is carried out. (This time should not be chosen too short to avoid the jalousie constantly opening and closing).

The **manual control lock** is active as long as the corresponding condition is present (e.g. "wind"). Regardless of the activation time, the lock is lifted 1 minute after the status changes (e.g. "no wind"). If the jalousie is controlled manually before the activation time has expired, the automated movement to the blind position and slat angle will not be carried out.

Example:

Settings for „Wind“:

- Move to 100%
- Activation time: 1min.

Settings for „No Wind“:

- Restore last position
- Restore last slat rotation
- Activation time: 10min

Blind position is at 50%, with slat rotation at 10%

- Wind is detected, for longer than 1 minute, the blinds are fully opened (position 100%).
- The wind decreases, after 10 minutes in which no wind is detected, the blinds move to the previous 50% and slat rotation of 10%

Device Info

Name	DALI-2 Jalousie	Article Number	86458676-HS	GTIN	9010342011238
Manufacturer	Lunatone	Serial Number		FW	5.0
Device Type		Type	Control Gear		
DALI Ver	V2.0	Short Address	(A1) DALI-2 Jalousie		Set

Device Parameters

Inputs

☒ Enable wind input

Wind input

Wind present on sensor input

230V

Wind

Move to

0 %

No turning

%

Activation time:

0 s

Manual control is locked.

no wind

No movement

%

No turning

%

Activation time:

0 s

Manual control is available.

☒ Enable light input

Light input

Light present on sensor input

230V

Light

Move to

100 %

No turning

%

Activation time:

0 s

☐ allow manual control

no light

Restore last position

%

No turning

%

Activation time:

5 s

☐ allow manual control

Figure 2 DALI Cockpit tab Inputs

Purchase Information

Art.Nr. 86458676-HS DALI Jalousie, DIN rail

Art.Nr. 86458676-DE DALI Jalousie, remote ceiling

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https://www.lunatone.com/wp-content/uploads/2018/03/DALI_Jalousie_EN_D0029.pdf

Additional Information and Equipment

DALI-Cockpit – DALI system configuration tool, free when using a Lunatone interface device

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

Lunatone DALI products

<https://www.lunatone.com/en/>

Lunatone datasheets and manuals

<https://www.lunatone.com/en/downloads-a-z/>

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www.lunatone.com



Disclaimer

Subject to change. Information provided without guarantee. The datasheet refers to the current delivery.

The compatibility with other devices must be tested in advance to the installation.