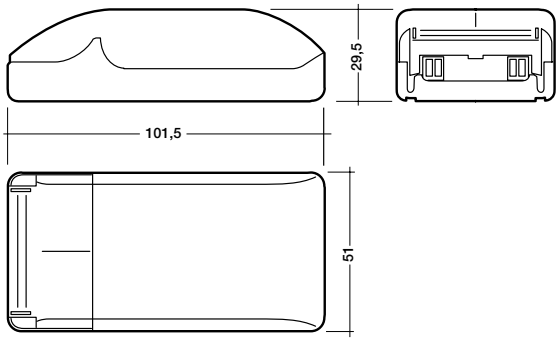
DALI-Somfy animeo interface



- For integrating Somfy animeo IB+ motor controllers in the DALI circuit
- The DALI-Somfy animeo interface requires 4 DALI addresses and can therefore independently control up to 4 blinds (i.e. 1 interface is needed per motor controller)
- Lighting moods can be conjured up using different blind positions
- The DALI-Somfy animeo interface supports 16 DALI groups and 16 DALI scenes. It is incorporated into the DALI circuit like a DALI electronic ballast. The blind positions (height and angle) are stored just like lighting scenes. Whenever the saved scene is called up, the blind moves to the preset position. It is possible to save and recreate a scene using the DALI SC, for instance. This makes it possible to save light and blind positions in a single scene.

Installation

- The polarity of the terminals (A, B) must be observed
- May only be used in conjunction with certain Somfy animeo IB+ motor controller (see list)
- Adjustments to the running and winding times must be made directly on the motor controller (Somfy) or using Somfy software
- The DALI-Somfy animeo interface will only function after the running and winding times have been set on the motor controller (Somfy)
- The DALI and Somfy signals are not SELV. Installation specifications for low-voltage devices apply
- The maximum current on the DALI control line may not exceed 250 mA
- The maximum cable length of the DALI control line may not exceed 300 m (given a wire cross section of 1.5 mm²) or a voltage drop of 2 V

Packaging:
single packaging
1 piece/box

Designed according to:
EN 55015
EN 55022
EN 61000-3-2
EN 61000-3-3
EN 61000-6-2
EN 61347-2-11
EN 61547

Type			DALI-Somfy animeo Interface
article number TridonicAtco			86458491
article number Somfy			1860140
electrical supply	mains voltage	V	220 – 240
	frequency	Hz	50/60
	max. current	mA	20
input	number	–	1
	–	–	DALI
	power consumption DALI bus	mA	6
	number of DALI addresses	–	4 (one per motor)
output	number	–	1
	–	–	Somfy motor controller protocol
	max. number of selectable motors	–	4
mounting	–	–	remote mounting
	mounting position	–	any
	max. cross section	mm^2	2.5
mechanical details	dimensions L x W x H	mm	101.5 x 51 x 29.5
	weight	g	95
environment	protection type	–	IP 20
	safety class	–	SKII
temperature	ambient temperature ta	°C	0 → 50
	storage temperature	°C	-20 → 70
	tc point	°C	75

The following Somfy motor controllers can be used:

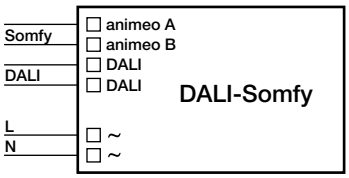
- animeo IB+ 4 AC motor controller (1860049, 1860081, 1860103, 1860108)
- animeo IB+ 4 DC motor controller (1860086)
- animeo IB+ 4 DC/DC-E motor controller (1860087)

Please read the instructions for the animeo IB+ motor controllers carefully.

The following TridonicAtco DALI controls are supported:

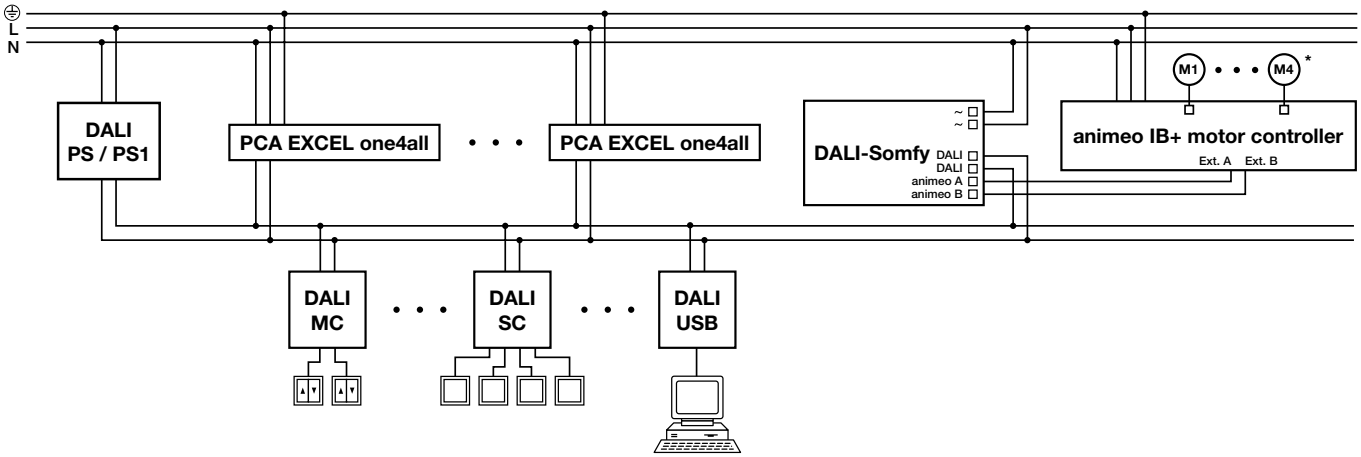
- DALI-GC-A
- DALI-SC
- DALI-SC-A
- DALI-MC
- DALI-TOUCHPANEL
- DALI-USB
- x-touch**BOX** version 3.00 or above
- x-touch**PANEL** version 3.00 or above

Wiring diagrams:

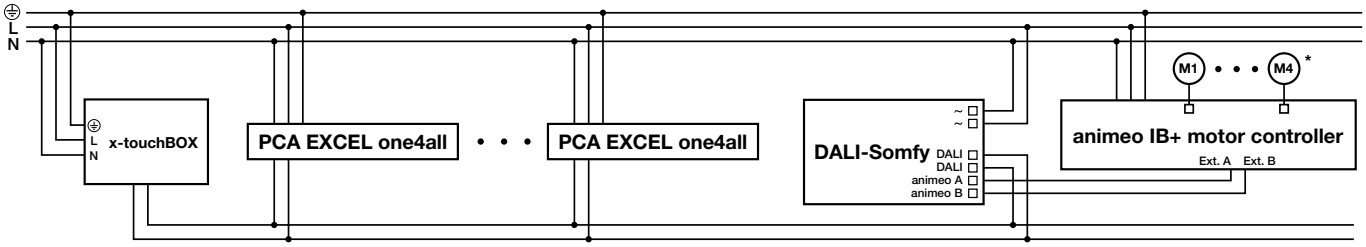


The polarity (A, B) between the DALI-Somfy module and the Somfy motor controller must be observed.

DALI-Somfy	→	Motor controller
animeo A	→	Ext. A
animeo B	→	Ext. B



* Please read the instructions for the animeo IB+ motor controllers carefully.



* Please read the instructions for the animeo IB+ motor controllers carefully.
The DALI-Somfy animeo interface is supported by the x-touch**PANEL** and the x-touch**BOX** from software version 3.00 or above.

TRIDONIC.ATCO

Command set

Standard DALI command set		Description
	DIRECT ARC POWER	The DAP command is forwarded to the motor controller interface as a position. The angle remains unchanged. DALI DAP [0...254] is translated into position [0...100]
0	OFF	If motor is running: STOP, otherwise same as DAP 0. Different behaviour during tilt → see Device-specific commands
1	UP	Blind moves to "MAX LEVEL". Different behaviour during tilt → see Device-specific commands
2	DOWN	Blind closes completely. Different behaviour during tilt → see Device-specific commands
3	STEP UP	Not evaluated (motor controller cannot perform a single step)
4	STEP DOWN	Not evaluated (motor controller cannot perform a single step)
5	RECALL MAX LEVEL	If motor is running: STOP, otherwise the position stored as "MAX Level" is approached. The angle remains unchanged (unless limited by the end positions in the motor controller). Different behaviour during tilt → see Device-specific commands
6	RECALL MIN LEVEL	If motor is running: STOP, otherwise the position stored as "MIN Level" is approached. The angle remains unchanged (unless limited by the end positions in the motor controller). Different behaviour during tilt → see Device-specific commands
7	STEP DOWN AND OFF	Not evaluated
8	ON AND STEP UP	Same as UP
16...31	GOTO SCENE	Goes to the predefined scene value. A scene value consists of a position and angle. (See also "STORE DTR AS SCENE" and "STORE ACTUAL LEVEL IN THE DTR")
32	RESET	Reset to factory default (address not affected)
33	STORE ACTUAL LEVEL IN THE DTR	Stores the current position in the DTR and the current angle in a special "DTR_Tilt" register
42	STORE DTR AS MAX LEVEL	Stores the maximum position within the physical limits. The angle is not stored.
43	STORE DTR AS MIN LEVEL	Stores the minimum position within the physical limits. The angle is not stored.
64...79	STORE THE DTR AS SCENE	Stores a preprogrammed position. The angle is taken from the internal "DTR_Tilt" register and stored together with the scene value.
80...85	REMOVE FROM SCENE	Stores 255 in the scene register
96...111	ADD TO GROUP	As per standard
112...127	REMOVE FROM GROUP	As per standard
128	STORE DTR AS SHORT ADDRESS	As per standard
144	QUERY STATUS	As per standard
145	QUERY BALLAST	Response is always YES
148	QUERY LIMIT ERROR	As per standard
149	QUERY RESET STATE	As per standard
150	QUERY MISSING SHORT ADDRESS	As per standard
151	QUERY VERSION NUMBER	Response is always 0
152	QUERY CONTENT DTR	As per standard
153	QUERY DEVICE TYPE	Response is always 0 (standard ballast)
154	QUERY PHYSICAL MINIMUM LEVEL	Response is always 1
155	QUERY POWER FAILURE	As per standard
160	QUERY ACTUAL LEVEL	Response is the current motor position 0...254
161	QUERY MAX LEVEL	0...254
162	QUERY MIN LEVEL	0...254
163	QUERY POWER ON LEVEL	Always 255 (MASK)
164	QUERY SYSTEM FAILURE LEVEL	Always 255 (MASK)
179...191	QUERY SCENE LEVEL	Response is the preprogrammed scene value (position)
192	QUERY GROUPS 0–7	As per standard
193	QUERY GROUPS 8–15	As per standard
194	QUERY RANDOM ADDRESS H	As per standard
195	QUERY RANDOM ADDRESS M	As per standard
196	QUERY RANDOM ADDRESS L	As per standard

Special DALI command set		Description
256	TERMINATE	As per standard
257	DTR	Physical Addressing Method is not possible
258	INITIALISE	
259	RANDOMIZE	
260	COMPARE	
261	WITHDRAW	
264	SEARCHADDRH	
265	SEARCHADDRM	
266	SEARCHADDRL	
267	PROGRAM SHORT ADDRESS	
268	VERIFY SHORT ADDRESS	
269	QUERY SHORT ADDRESS	

Device-specific commands

The response of the "DALI-Somfy animeo interface" to some DALI commands is different from those specified in the official DALI standard. These commands have the following meanings:

„FADE TIME, FADE RATE"
The values are accepted and stored but have no effect on the louvre blind movements.

„RECALL MAX, RECALL MIN, OFF"
For use with the DALI GC the following responses have been implemented:
- If "Recall MAX" is received while the motor is running, the motor will stop
- If "Recall MIN" is received while the motor is running, the motor will stop
- If "OFF" is received while the motor is running, the motor will stop

This results in the following behaviour:
Briefly pressing a button starts the motor; pressing the button again stops the motor.
Different behaviour during tilt → see Ergonomics.

„UP, DOWN"
A single "UP/DOWN" command moves the blind to the relevant end position, unless the blind is tilting. If the blind is tilting, the motor is switched on for 150 ms (tilt mode).

If the command is repeated (button pressed continuously) during a tilt the motor continues until the end of the tilt is reached. This is followed by a pause of 500 ms in which the button can be released to stop the blind. Otherwise the blind continues to the relevant end position.

Behaviour is also determined by the selected US/EU ergonomics:
Ergonomics determine the behaviour of the blind during tilting.
Ergonomics can be selected with the aid of the "masterCONFIGURATOR" software tool (V1.10 or higher).

Action	US	EU
Blind is tilting and the following DALI commands are sent: • OFF • DOWN • RECALL MIN	Moves to the lower end position	Makes a small positive angle movement
Blind is tilting and the following DALI commands are sent: • UP • ON AND STEPUP • RECALL MAX	Moves to the upper end position or MAX LEVEL	Makes a small negative angle movement

Blind angle, storing scenes
A scene value consists of a position and angle. A special internal DTR register (DTR_Tilt) is used for the angle.
When a scene is recalled the blind moves to the position and angle stored for this scene.

The following process
- „STORE ACTUAL LEVEL IN THE DTR" (stores the angle in DTR_Tilt)
- „STORE THE DTR AS SCENE"

stores both the position and the angle.