e-Bus Coupling DALI Mains

Instruction sheet   EN

Bus Coupling Unit powered at 230 Vac, with DALI-2 protocol for **e-Touch** touch switch products

e-Bus Coupling DALI Mains is a bus coupling unit to connect any touch switch of the product family **e-Touch Flexi** or **e-Touch Panel** to the DALI lighting control bus, to be part of a device network managed by a DALI gateway or controller with DALI-2 protocol based.
The bus coupling unit is powered directly at mains, thus avoiding consuming current from the DALI bus. The device is automatically configured according to the touch switch connected to it, defining the number of instances that can be programmed from the DALI-2 controller using the controller's software application.

INS101852001010

Product description

The **e-Bus Coupling DALI Mains** coupling unit is a communication interface to connect any touch switch of **e-Touch Flexi** or **e-Touch Panel** product family to the DALI bus. The device is powered directly at mains to avoid consuming current from the DALI bus. This is specially interesting in installations with a high number of devices in the bus. The device requires a DALI-2 gateway or controller as a master unit, that will execute the messages sent by every touch switch+bus coupler to the communication bus. The device is compatible with any of the **e-Touch** family products, and is automatically configured according to the number of touch zones or buttons of each touch panel. Each touch switch has a predefined number of touch zones and Led indicators with a different arrangement (for more information read the instruction sheet of each touch switch). According to the DALI-2 protocol, this device is identified as an IEC62386-301 Push Button device with a number of instances equal to the number of touch zones of the touch switch connected.

Digital inputs
The device has two digital inputs of dry contact type, to connect any sensor or device with a free potential contact output to do an additional management with the keypad, like a motion sensor, a window contact, etc. Both inputs will be seen in the software application of the DALI-2 controller as the two last instances of the device, being IN1 the instance "n-1" and IN2 the instance "n". In order to see these instances, an e-Touch switch device must be connected previously to the coupling unit.

"State" Led indicator
The device has a led indicator in front of it marked as "State" that indicates the operating state of the device. When the touch switch is not connected to the bus coupling unit , the led indicator flashes every 5 seconds, indicating that it works correctly.
When powering the device and the bus coupling unit has detected a touch switch connected to it, the led indicator will light up 2 seconds and then will blink when transmitting or receiving DALI messages. This sequence can be seen if the touch switch is mounted temporarily without the frame.

"SL" Led indicator
The device has a led indicator in the side of the box, marked as SL, that shows the DALI bus activity.

Device configuration in the DALI bus

IMPORTANT: Before starting the configuration process, check that a touch switch is connected to the device.
Once the device is installed, start commissioning it in the DALI bus. To do this, launch the "scan" function in the software application of the DALI-2 gateway/controller previously selected. When the "scan" function has finished, all the e-Bus Coupling units with a touch switch connected, will appear in the application. Then, proceed to configure the device according to the application of the DALI-2 controller manufacturer. For more information regarding the configuration of the device, read the instruction sheet of the **e-Touch Flexi** or **e-Touch Panel** touch switch.

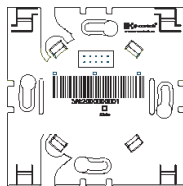### Identifying the device in the DALI bus
The "wink" command of the DALI protocol is used to identify the device during the commissioning process. Upon receiving this command, the led indicator number 1 of the touch switch will blink during 30 seconds.

Changing the touch switch by another model
In case it is necessary to change the touch switch configured, by another model, a reconfiguration
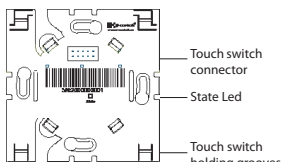
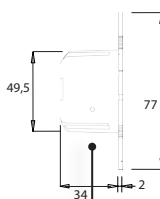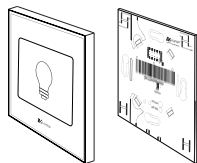process must be done. To do this, unconfigure the bus coupling unit from the DALI-2 controller (Unassign function), disconnect the DALI supply power, remove the touch switch and connect the new model, apply power supply again, and start again the configuration process (Scan).
NOTE: The replacement of one touch switch by another one of the same model does not require any reconfiguration.

Product installation

Read carefully the installation steps of the device explained below.
Important:
- In order to do the **e-Bus Coupling DALI Mains** operational, any **e-Touch Flexi** or **e-Touch Panel** device must be connected to the device.
- Follow the recommendations of the DALI-2 standard for the wiring installation in the building.

Mounting steps of the device:
1. Disconnect the DALI supply power and the mains power.

Front view

- Touch switch connector
- State Led
- Touch switch holding grooves

Lateral view

49,5   77   34   2
SL Led

Assembly

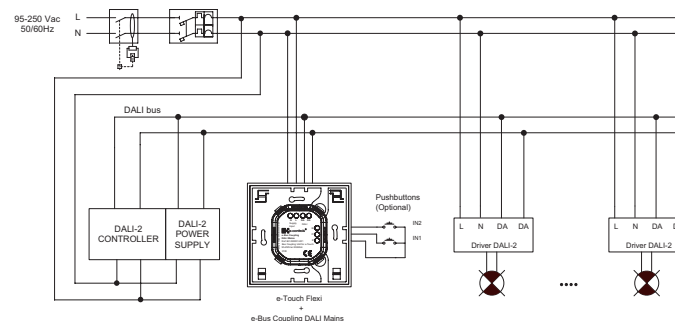## Product installation (continue)

2. Connect the mains and DALI wires according to the drawing. The DALI bus does not have polarity.
3. Fix the device to the enclosure with the screws. If an e-Touch Panel is going to be used, fix also the adapter provided with the touch switch, inserting the two notches of the adapter to the frame, so that the touch switch can be clipped with its four ends.
4. Assemble the plastic frame on the touch switch paying attention that the ventilation slots are in the lower and upper left side.
5. Insert the e-Touch Flexi or e-Touch Panel into the holes of the front connector on the bus coupling unit, until the white clips of the touch switch match the ones of the bus coupler, and press until the frame will be firmly fixed to the wall and pressed by the keypad.

6. Apply power to the device and check that any of the blue leds of the touch switch blinks.
7. Proceed to configure the device according to the steps defined in the "Configuration" section.

Caution:
- Disconnect the power supply before mounting or moving the device.
- Do not leave cables peeled or turned around the device.
- Do not connect the device with the hands wet.
- Do not open or hole the device.
- Keep the device and cables away from humidity and dust.
- Clean the front cover with a water moisture soft cloth.

Installation drawing

Install the electrical protections and the corresponding cable according to the rules of every country.

Technical features

Supply Power
Operating voltage	95-250 Vac - 50/60 Hz
Maximum rated current (without touch switch)	0,1 W

Communications
Technology	DALI-2
Standard	IEC 62386-101 ed2, 103 ed1 (input device), 301 ed1 (digital inputs), 332 (feedback)
Interface	DALI
Communication speed	1200 bps

Digital inputs (IN1, IN2)
Quantity	2
Type	Dry contact
Open circuit voltage	13 V
Short circuit current	1,2 mA
Closed contact maximum impedance	75 KOhm
Open contact minimum impedance	150 KOhm

"State" Led indicator
Functionallity	Device status
DALI bus activity	Red

SL Led indicator
Functionallity	DALI bus activity (blinking)
Colour	Yellow

Commuisioning in DALI network (*)
Unique identifier at learning time	
Front led blinks every second in Wink state	
GTIN unique identification code	8435483900158

Temperature values
Operating	0ºC to +50ºC (32ºF to 104ºF)
Storage	-20ºC to +85ºC (-4ºF to +185ºF)

Humidity (no condensation)
Operating	10% to 90% RH at 50ºC
Storage	95% RH at 50ºC

Mechanical installation
Installation type	Flush mounting
Enclosure	European universal
Recommended mounting height	1 m or 1,5 m (depending on e-Touch model)

Mechanical features
Dimensions	77x77x36mm
Weight	65 gr
Colour (frontal)	RAL 9016
Enclosure material	PP
Cable section	0,5 mm2 - 2,5 mm2 (14 AWG)
Terminals	Screw type
IEC protection	Class II
Protection degree	IP20 (EN 60529:1991)

CE Conformity
Low voltage directive	2014/30/UE
Electromagnetic Compatibility Directive	2014/35/UE
Marcado	CE

Applicable harmonized standards
Product standard	EN60730-1:2013
Electrical security	EN60730-1:2013
Electromagnetic compatibility	EN61000-6-3
	EN 61000-6-1

(*) Refer to the DALI-2 gateway installation manual for the commissioning process.

Ordering numbers

e-Bus Coupling DALI Mains, Bus Coupling Unit for DALI protocol, for e-Touch Flexi and e-Touch Panel BC.582001-001

CE