# VADSBO CBU-A2D DALI Controller Instruction Manual

# VADSBO

**CBU-A2D DALI Controller
Instruction Manual**
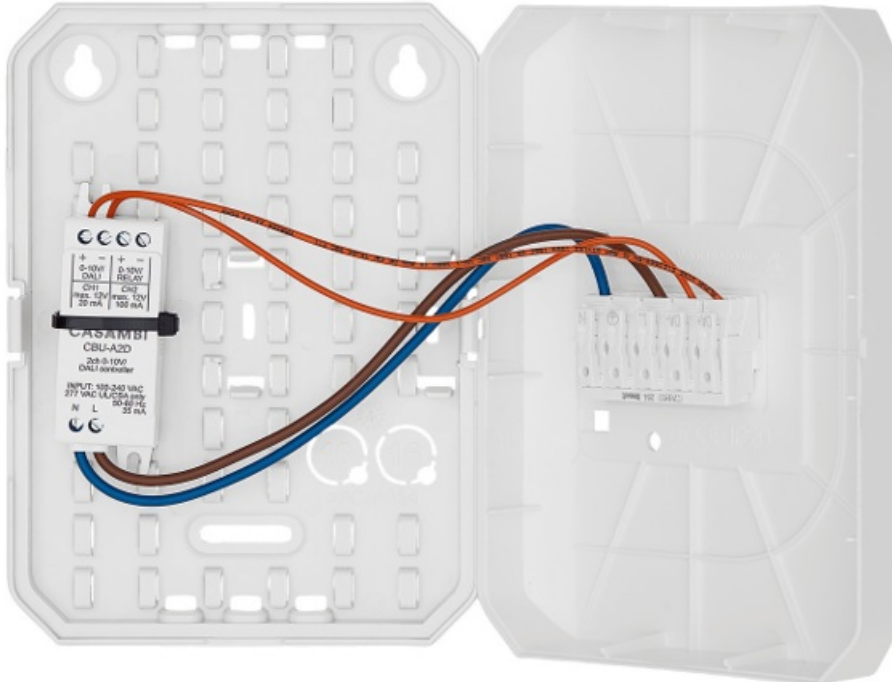


**Innehåller:
Manual A2D
Vadsbox Rum Snabb**

**Contents**

## CBU-A2D DALI Controller

E nummer: E13 607 95
Art. nummer: V-42D0096-002Y
Hilma Anderssons gata 15
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**info@vadsbo.net**
**order@vadsbo.net**
**www.vadsbo.net**
**Installation Manual**

⚠ **Warning!**
High voltage. Risk of electric shock. Installation should only be performed by a qualified electrician. Make sure that the power supply is switched off before connecting.
Vadsbox is a junction box intended for the fitting of products such as dimmers, control modules and relays.

Vadsbox is IP20 compliant and intended for placement in suspended ceilings or for surface mounting indoors. Vadsbox is equipped with a 5-pole spring connector, which can be removed from the fitting if necessary. Vadsbox's base plate includes brackets which, with the help of the
included cable ties, allow for a universal fitting of products, as well as simple internal cable management and strain relief.
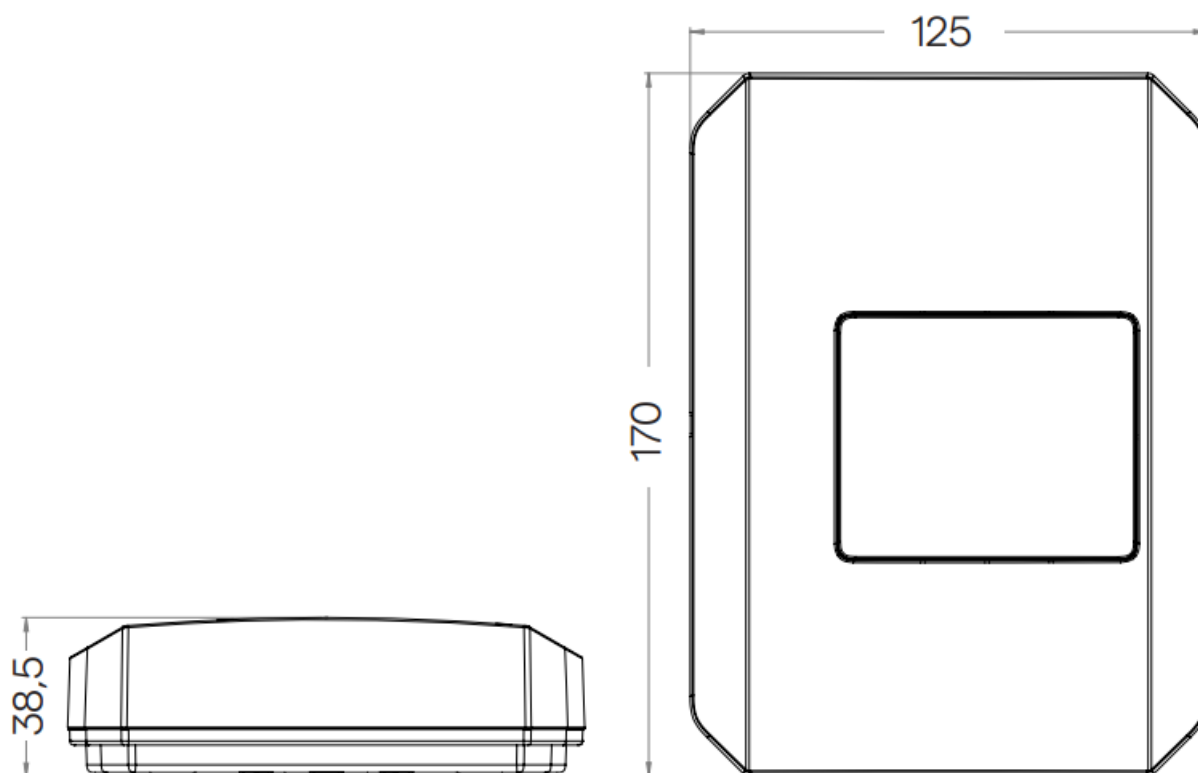
CE IP20

## Open locking clips
To open the Vadsbox press a screwdriver against the locking clips on each long side, as per the picture below

Press
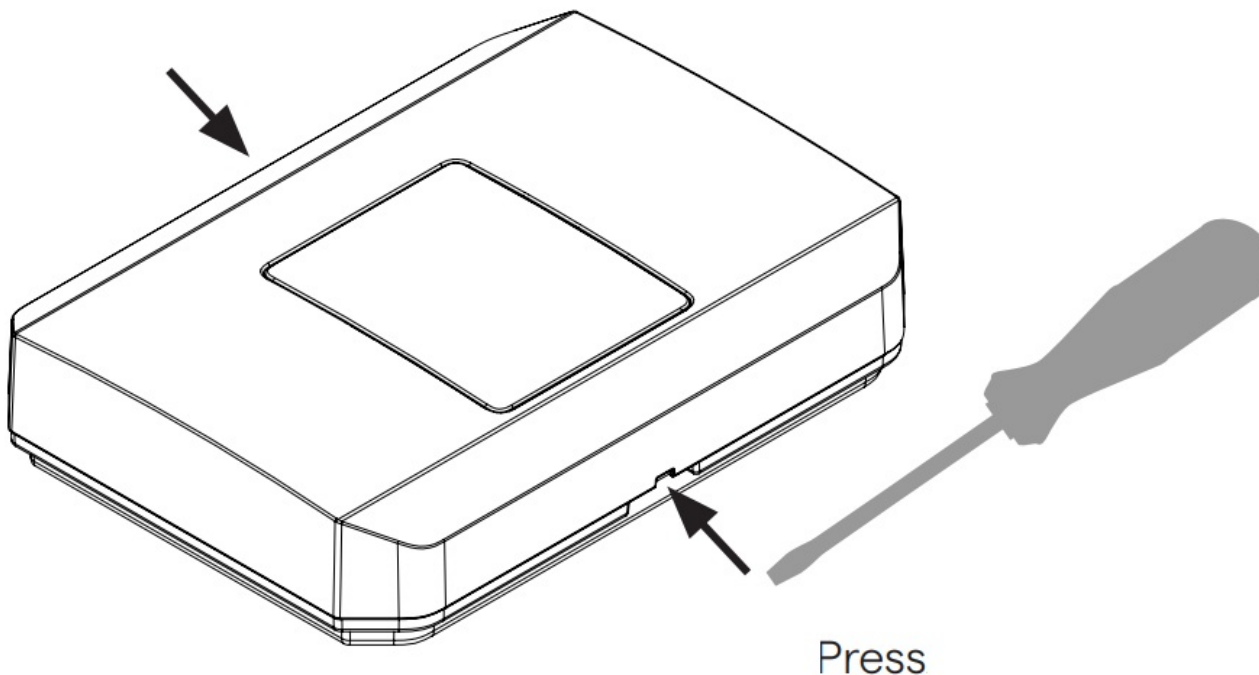
## Dimensions

## Technical data

| | |
|---|---|
| Product name | Vadsbox |
| Product number | V-65L1602-001Y |
| E-number | E14 383 97 |
| Fitting | Surface mounted |
| Material | PC/ABS |
| Insulation class | IP20 |
| Dimensions LxWxDj | 170x125x38,5mm |
| Cable entry | 16mm knock-outs, and multiple cut-out option |
| Working temperature | -20 + 50°C |
| Weight | 178g |
| Flame retardance | V0 |
| Approvals | CE |

## Cable entry options

Optional knock-outs based on cable size in several places
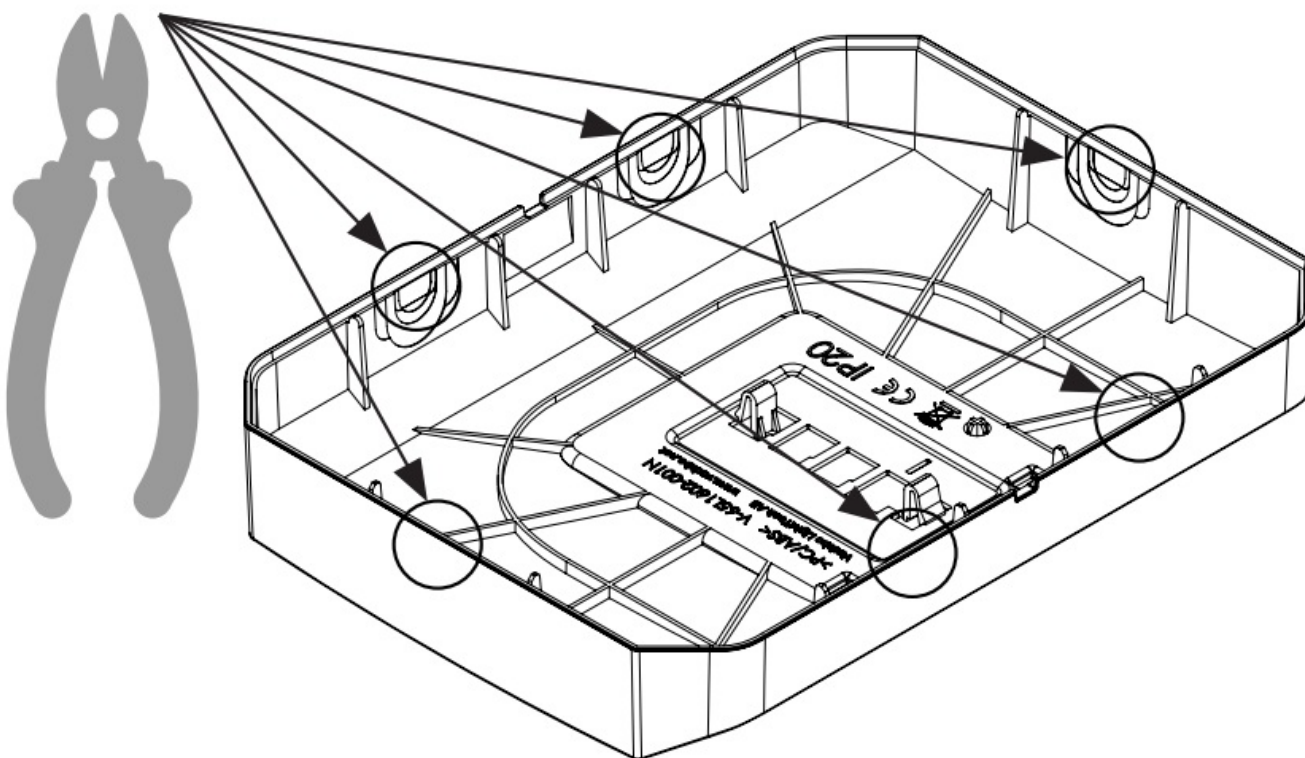
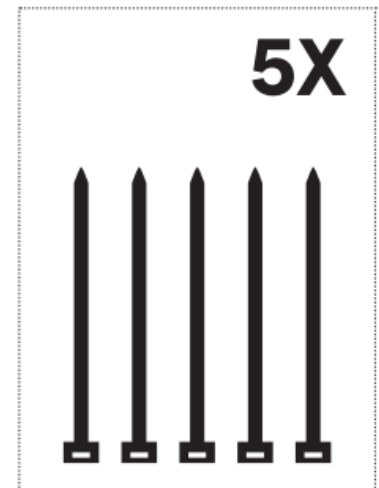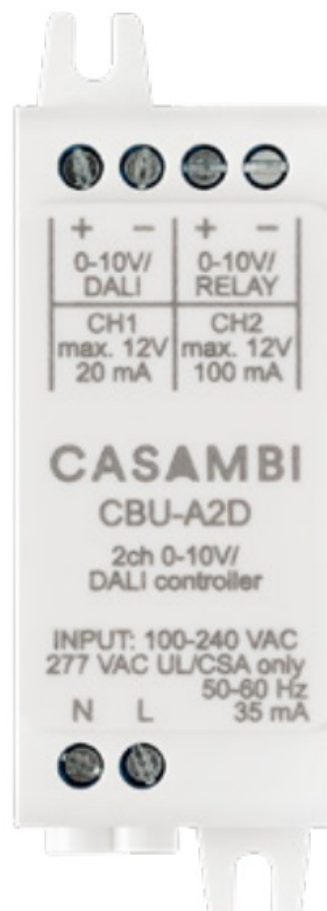

Knock-outs for 2 wiring cables

Knock-outs
for 16mm
flex hose

>PC/ABS<

**Wall mounting**

Included

3X

>PC/ABS<
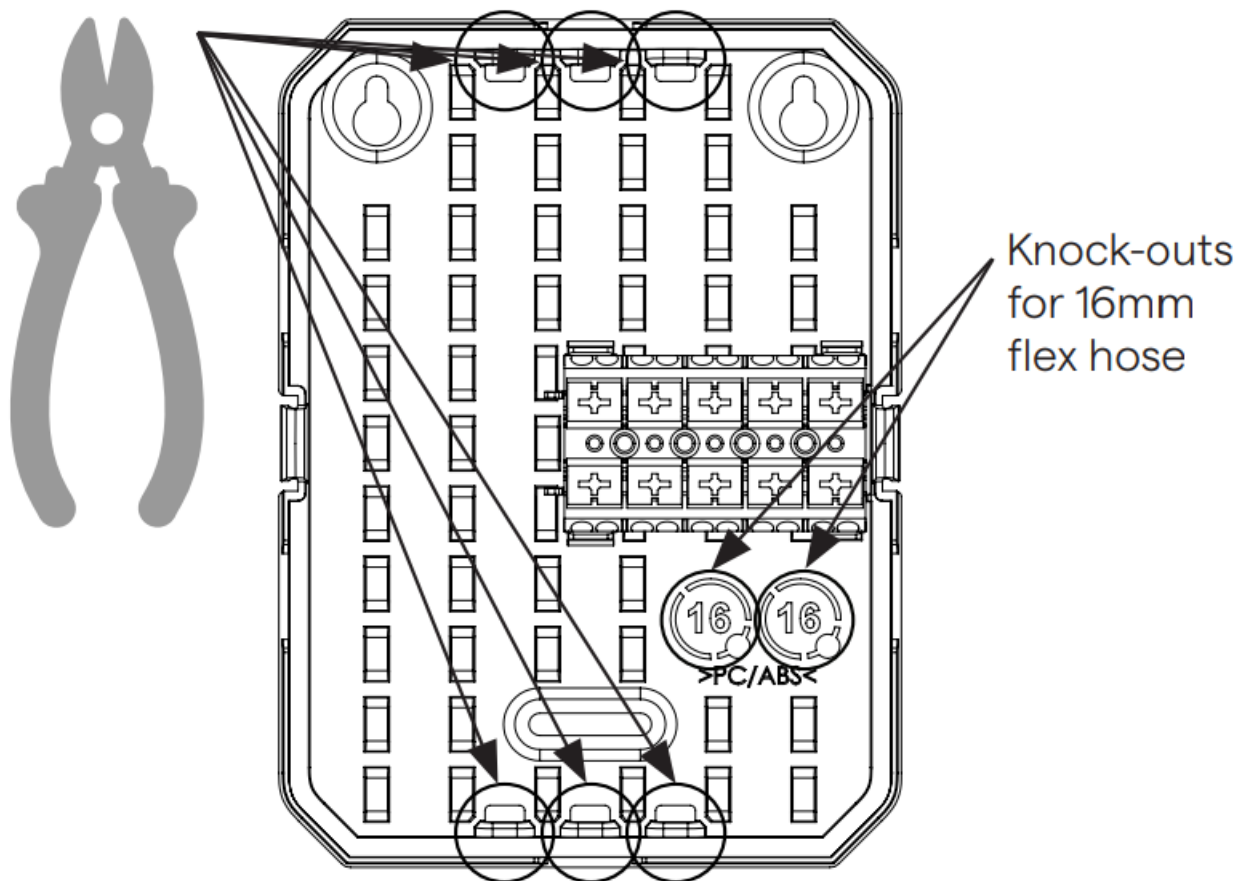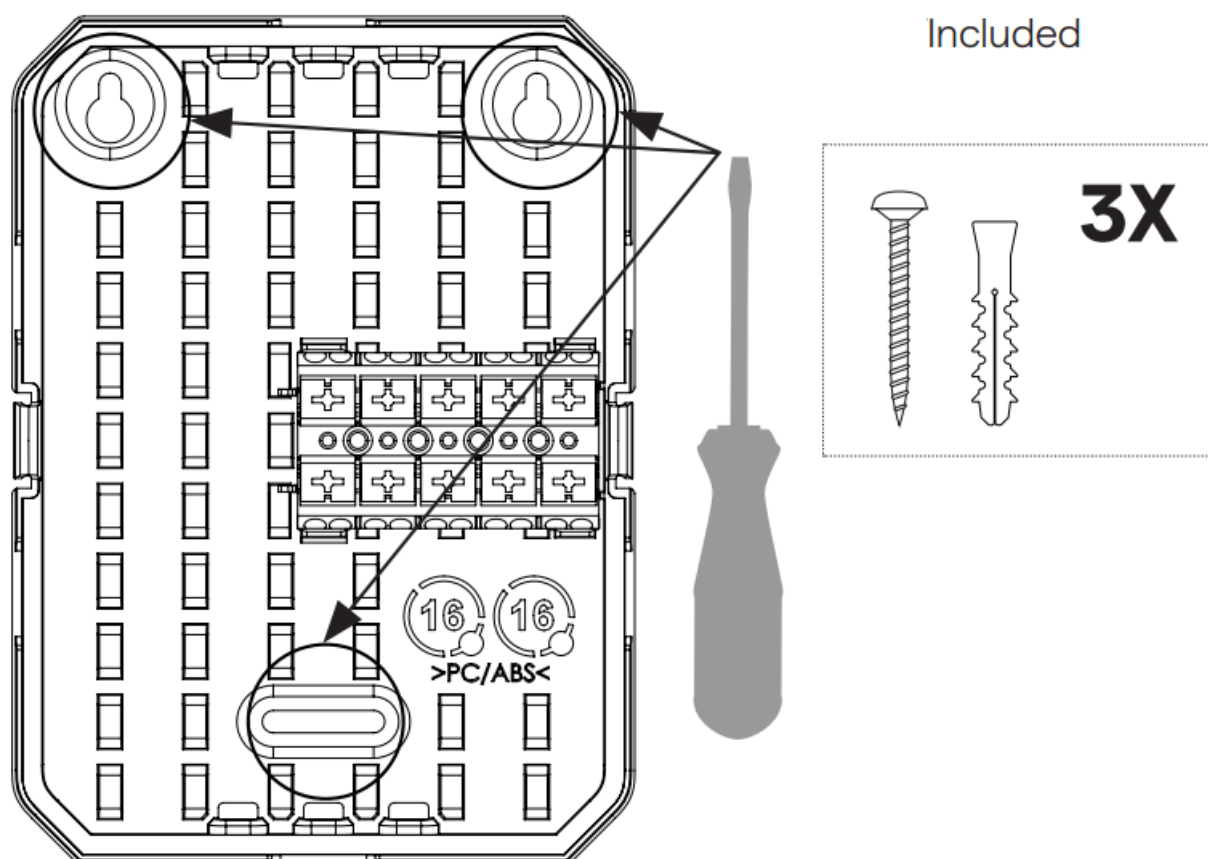
**Examples of strain relief**

Included

**5X**
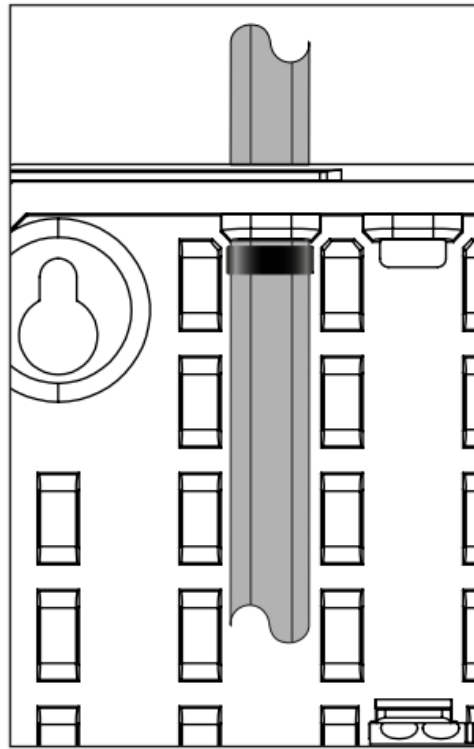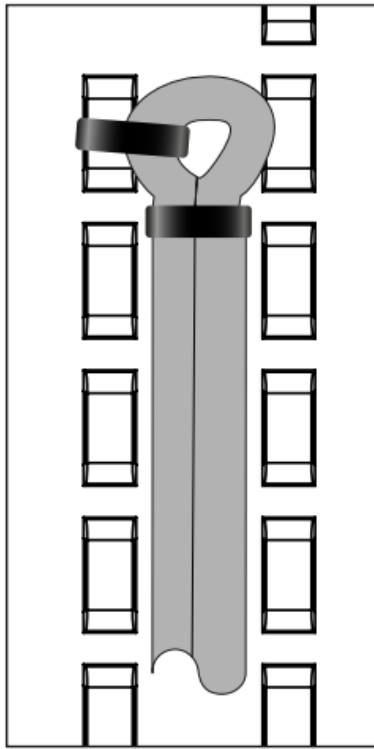
**Installation manual CBU-A2D**



⚠ **Warning!**

High voltage. Risk of electric shock. The installation should only be carried out by an authorised electrician.
CBU-A2D is a Bluetooth controllable, Casambi enabled 2 channel 0-10V/ DALI controller. CBU-A2D has a
universal 100-277 VAC input voltage range. CBU-A2D can control one or two 0-10V controllable LED drivers, or it
can control a tunable white LED driver with two 0-10V control interfaces. The product can also be configured into
a DALI mode where it can be connected to a DALI LED driver or DALI sensor for presence and/or daylight

harvesting functions.

CE symbol, WEEE crossed-out bin symbol. CBU-A2D can be controlled with Casambi app which can be down loaded free of charge from Apple App Store and Google Play Store.

Different Casambi enabled products can be used from a simple one luminaire direct control to a complete and full fea-tured light control system where up to 250 units form automatically an intelligent mesh network.

**Technical data**

| Label | CBU-A2D |
|---|---|
| Item number | V-42B0006-001 |
| Input voltage | 100-240VAC (CE/UL/CSA) 277VAC (UL/CSA only) |
| Frequency | 50-60Hz |
| Max. mains current | 35mA |
| Output 1 voltage, 0-10V | 0-10VDC, max. 7 mA (sinking) |
| Output 1 voltage, DALI | 12VDC, max. 20 mA (sourcing) |
| Max. number of drivers | 1 driver + 1 sensor/push button |
| Output 2 voltage, 0-10V | 0-10 VDC, max. 7 mA (sinking) |
| Output 2 voltage, relay control | 12 VDC, max. 100 mA (sourcing) |
| Max. number of drivers | 1 |
| Operating frequencies | 2,4…2,483 Ghz |
| Max. output power | -4 dBm |
| Ambient temperature, ta | -20…+45°C (-4…+113°F) |
| Max. case temperature, tc | +70 °C (+158°F) |
| Storage temperature | -25…+70 °C (-13…+158°F) |
| Max. relative humidity | 0…80%, non-cond |
| Wire range, solid & stranded | 0,5-1,5 mm2  / 16-20 AWG |
| Wire strip length | 6-7 mm (.25") |
| Tightening torque | 0,4 Nm/4 Kgf.cm/2,6 Lb-In |
| Dimensions | 76,0×26,0x23,0mm |
| Weight | 40g |
| Casing classification | IP20 |
| Protection class | Built-in Class II |
| Certifications | CE |

**Dimensions**

26

3,5

68

59,4

13,4

76
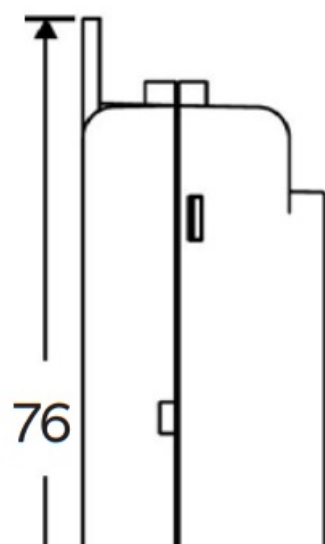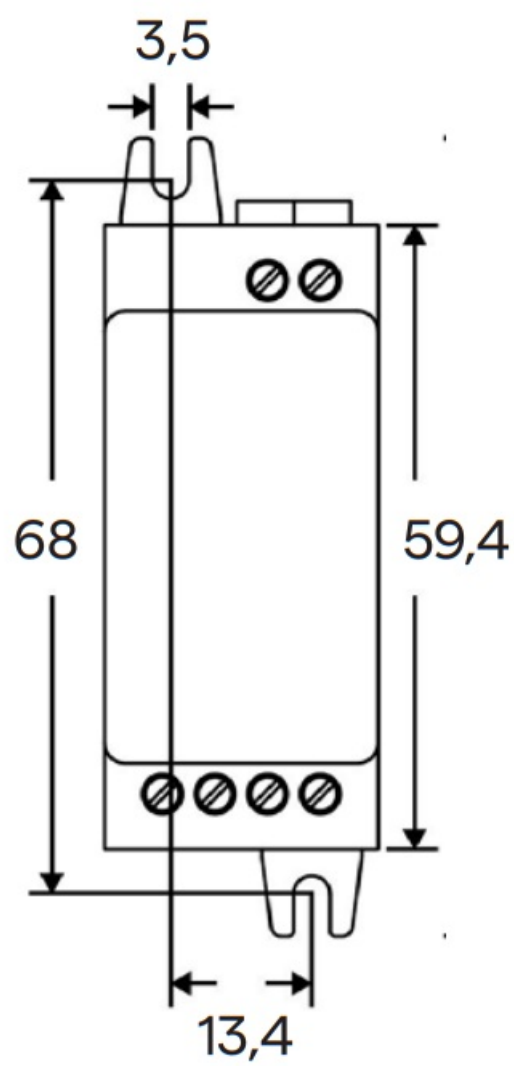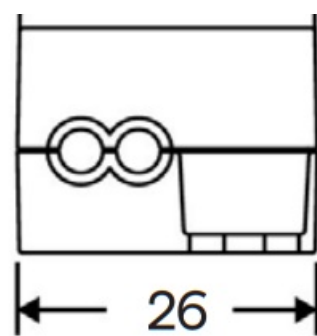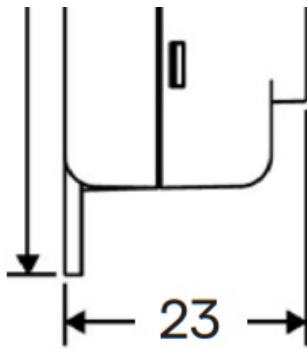
## Installation

Make sure that the mains voltage is switched off when making any connections. Use 0.5-1.5 mm 2 solid or stranded conductor electrical wires. Strip the wire 6-7 mm from the end. Insert the wires into the corresponding holes and tighten the connector screws.
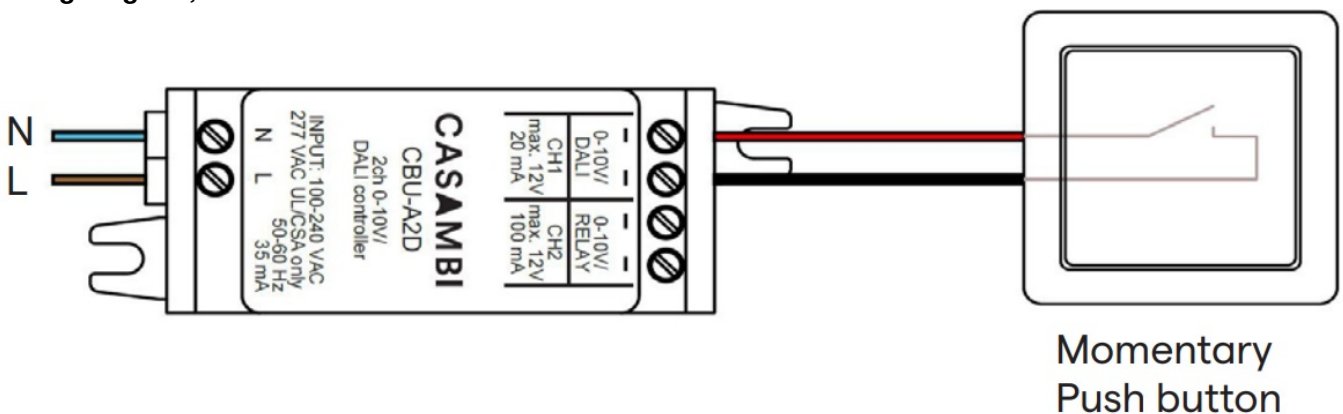
If the connected LED driver cannot be turned off completely from the control interface, an external relay with 12 VDC coil can be connected to channel 2. Make sure the relay is protected against flyback voltage, e.g. do not use a PCB relay without the flyback diode. A suitable fixture configuration must be selected in order to control a relay. CBU-A2D, as any other Casambi product, should not be placed in a metal enclosure or next to large metal structures. Metal will effectively block radio signals which are crucial to the operation of the product. A thorough connectivity testing is strongly recommended in the installation site.

### Range

The range between two CBU-A2D units or between a CBU-A2D and a smart phone can vary a lot depending on obstacles and surrounding material. In open air the range between two CBU-A2Ds can be in excess of 200 ft, but if the unit is encapsulated into a metal structure, the range can be only few feet. Therefore, thorough testing is highly suggested.

Casambi uses mesh network technology so each CBU-A2D acts also as a repeater. When testing the network, it is important to test that each unit can be controlled from any point of the network covered area.
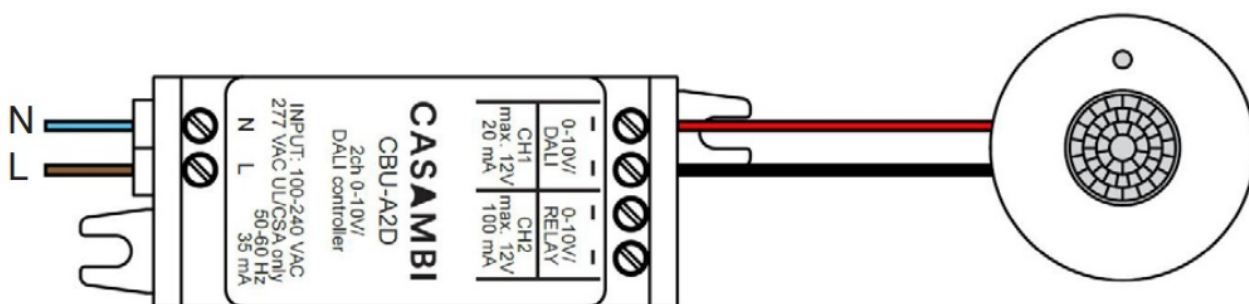
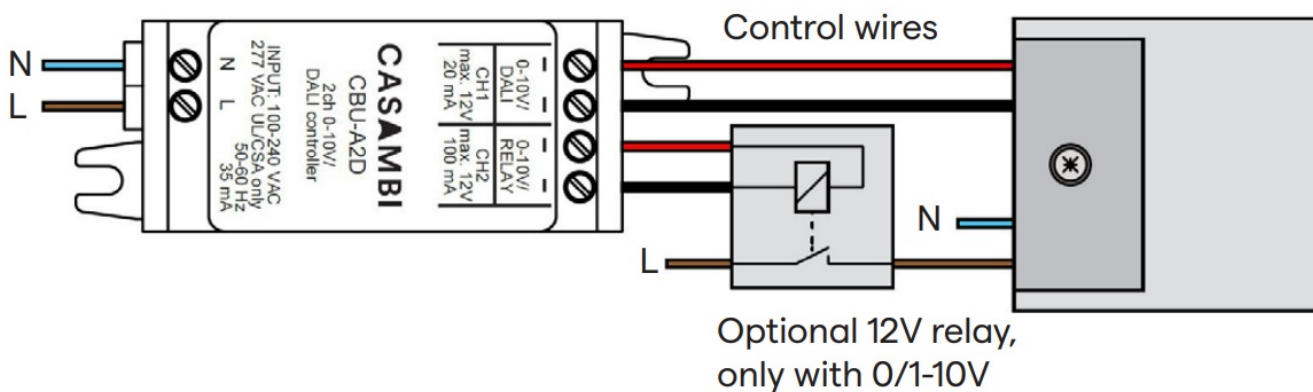### Wiring diagram, Push Button



### Wiring diagram, 10 DALI drivers

Control wires

DALI driver

N
L

DALI driver

N
L

— — — Up to 10 devices

DALI driver

N
L
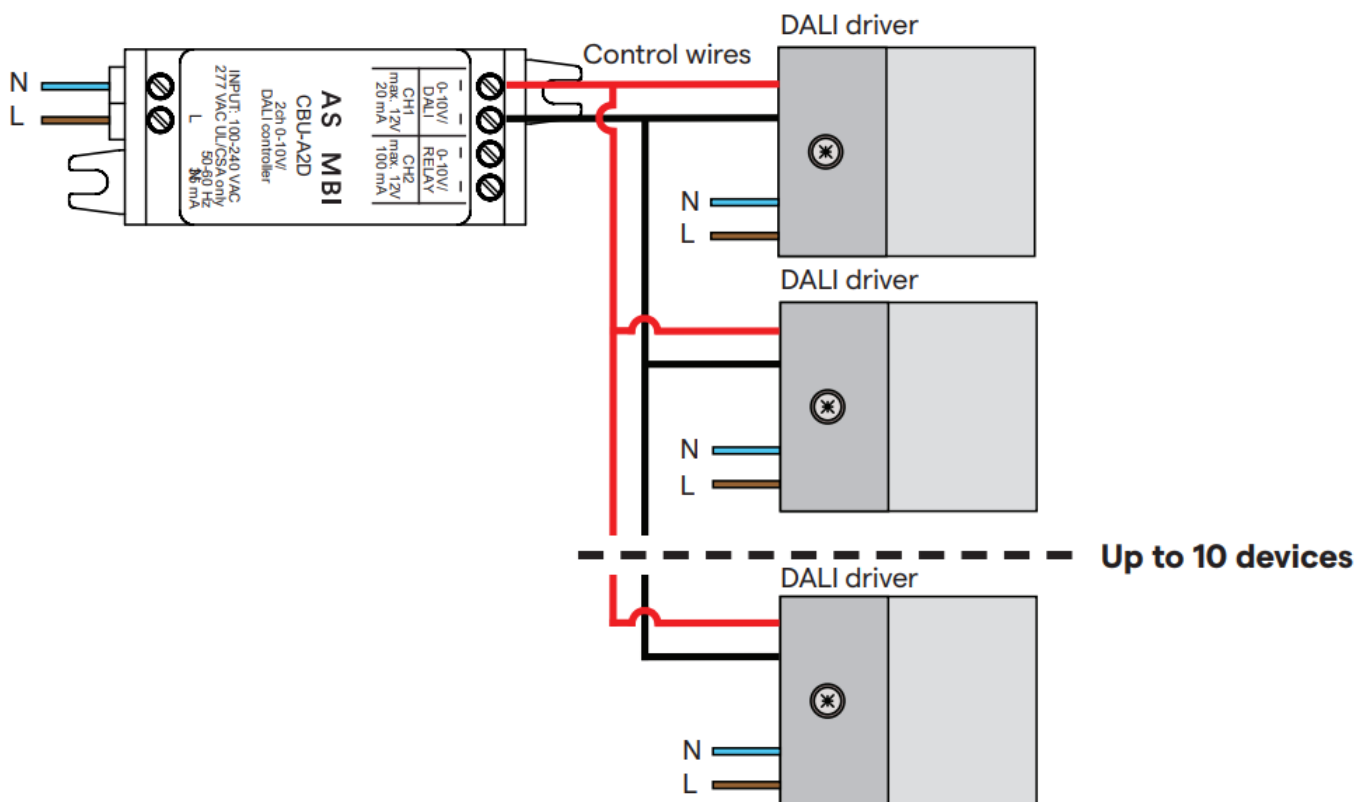
**Wiring diagram, DALI sensor**



Passive DALI sensor

N
L

**Wiring diagram, one driver and relay**



0/1-10V or DALI driver

Control wires

N

Optional 12V relay,
only with 0/1-10V

L

**Wiring diagram, 2 channel LED driver**

**2ch/Tunable white 0-10V driver**

Ch1/Dim control

Ch1/Dim control

**Wiring diagram, two drivers (only 0-10V)**



0-10V ch1

0-10V ch1

**Documents / Resources**

**VADSBO CBU-A2D DALI Controller** [pdf] Instruction Manual
CBU-A2D, DALI Controller, CBU-A2D DALI Controller, Controller

## References

- 🌐 **Kgf.cm/2,6**
- 🌐 **Vadsbo LightTech AB – Vi utvecklar, designar och säljer trådlösa ljusstyrningslösningar för stora & smarta projekt.**