VBA-MDS-C

Version V1.0

Product Intruduction

VBA-MDS-C is a Casambi-enabled intelligent wireless multifunctional sensor that combing PIR motion detection,ambient daylight sensing, and DALI control capabilites.It enables automated and app-controlled lighting via the Casambi App. It complies with Zhaga 20 dimensional specifications.

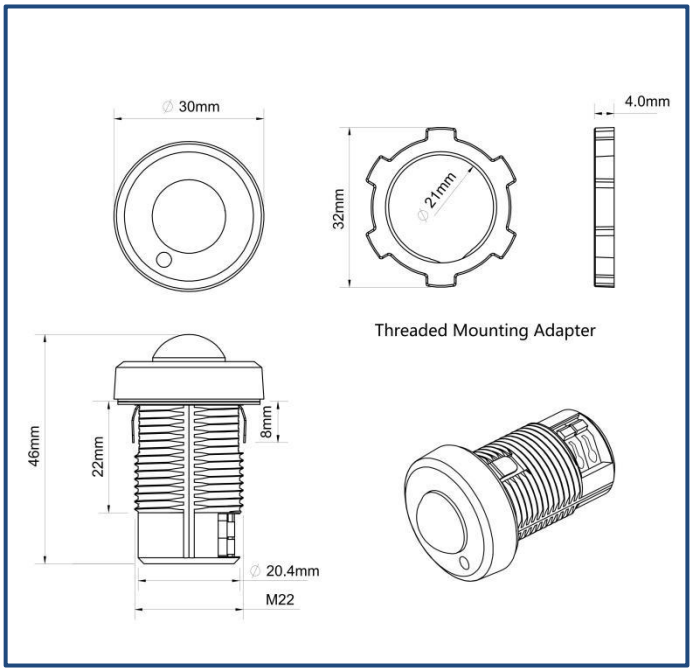
_ Single channel DALI Wireless Sensor-Controller

_ Digital Passive Infrared(PIR) sensor

_ Daylight sensor

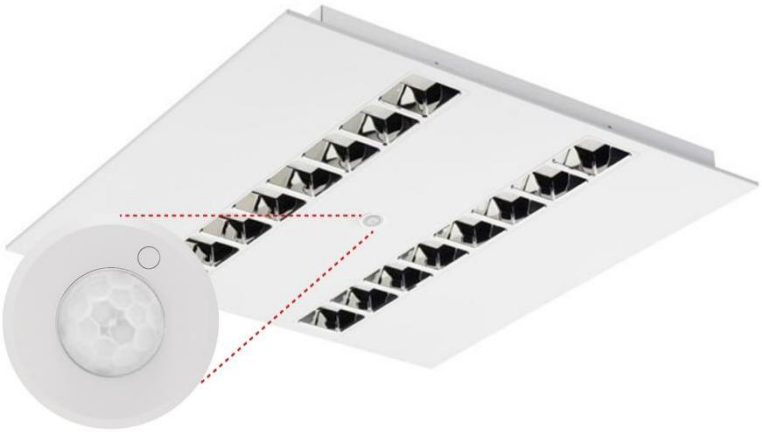
_ Zhaga Book 20 Compliant

_ 360° Sensor Coverage Patter



Mounting

This product is embedded within the luminaire housing.



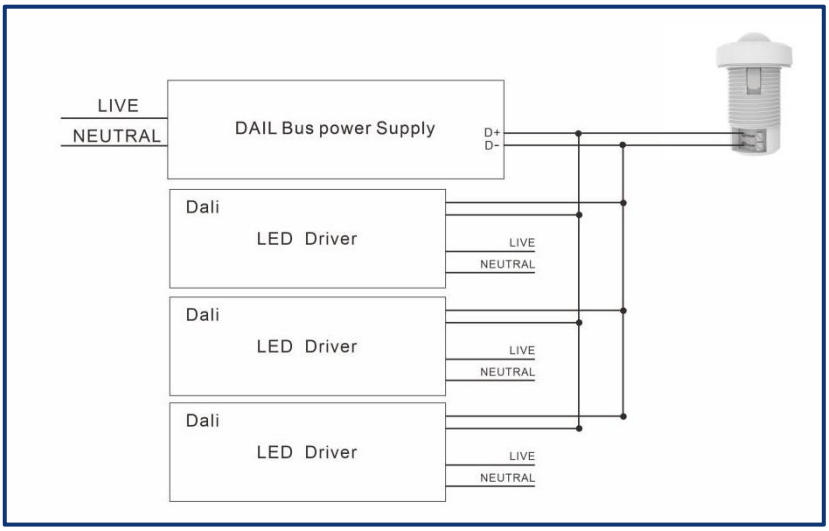
Technical Data

Input/Output	Input Voltage	12-22.5 Vdc
	Average input current	10mA
	Peak input current	30mA
	Power consumption	＜150 mW
	Maximum output power, PRF	+7 dBm
	Radio frequency	2.4 GHz
	Range	50m (Line of sight)
	Wireless protocl	Bluetooth provided by casambi
Capabilities	Control	Bluetooth
	Dimming Control	DALI2
	Individual addressing	8 addresses
	Group addressing	8 groups (max 64 dali drivers,depends on the specifications of DALI bus powersupply)
	Type of sensor	PIR and light sensor
	Detection angle for light measurement	'+/-25° (15% lux detection)
	Mounting heights	Max 3m
	PIR detection range	Ø8m (mounting heights 3m)
	Detection angle for PIR detection	360°
	Light measurement	0-1000 lux
	Min. temperature difference between ambient temperature and detected object (sensitivity)	± 2 °C 0.6m/s
	Reset	Push button (small hole)
	LEDs indicator	Blue: network Status / Red: Motion detected,can be turn on or off in the app configuration
Envirments	Ambient temperature range ta	-20...+60 ℃
	Max.case temp.in fault condition	110℃
	Operating humidity	0...90%
	Environmental rating	Indoor
	Expected lifetime	50000H
	Maximum case temperature tc	60℃
	Storage temperature range	-20...70℃
	Storage humidity	0...95%
	IP rating	IP20
Physical informations	Mounting hole diameter	22-23mm
	Material /color	White/black
	Wire preparation length, input side	7...9mm
	Cable cross section, input side	0.25...0.75 ㎟
	weight	

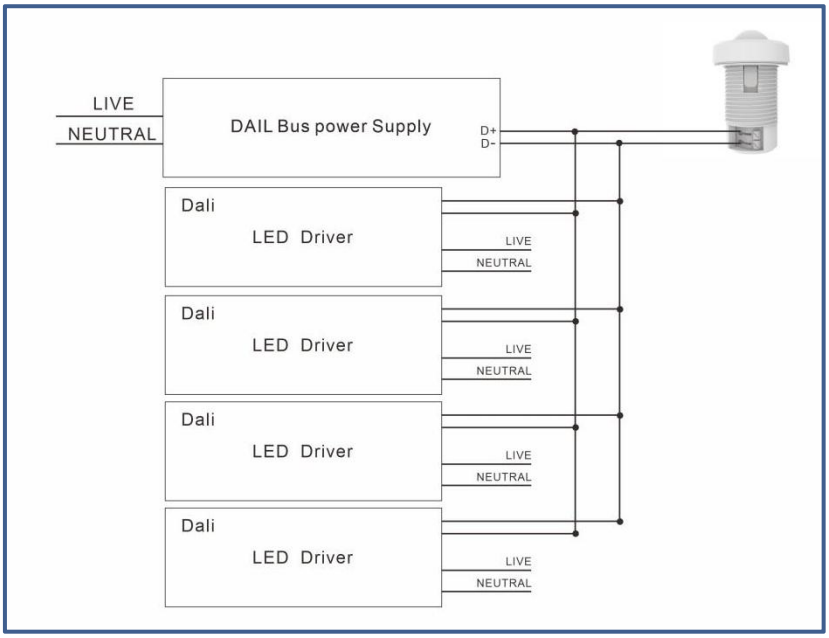
Wiring Diagram

Each VBA-MDS-C product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Page 8-9 are listed the fixture profile options for the VBA-MDS-C.

For 3* 1 channel DT6 driver:

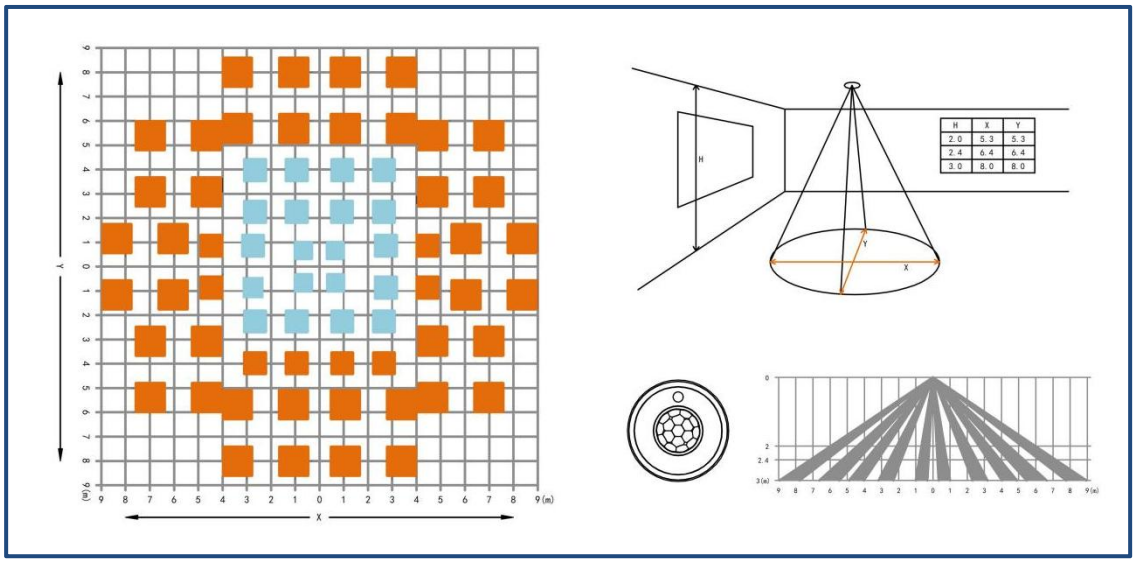


For 4*1 channel DT6 driver:



Detection Range

The sensor's detection radius exhibits height-dependent variation. Recommended mounting height: 2-3m (6.6-9.8 ft), delivering peak coverage efficiency at 3m (9.8 ft) installation level.



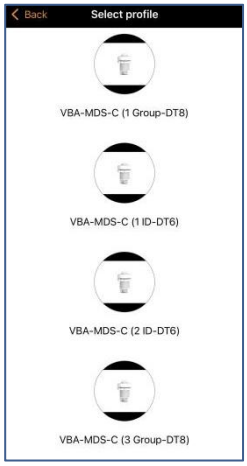
Change fixture profile

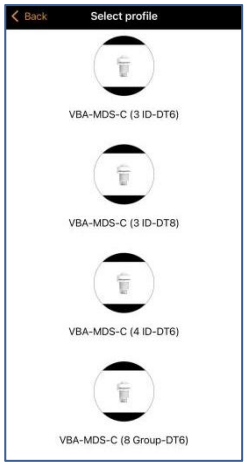
_ The default fixture profile built in device is “ VBA-MDS-C(8 ID-DT6)”.

_ If need to change the fixture profile, make sure the device is in unpaired status.

_ Change the fixture profile to your desired.

_ After fixture profile is changed, select the 'Check for Updates' button on the 'More' page.





Reset Button

To unpair the device from other network, follow the steps in Figure 2. Then, using a needle to reach the inside reset button(Figure 1), and it will implement “Switch OFF and back ON again” .

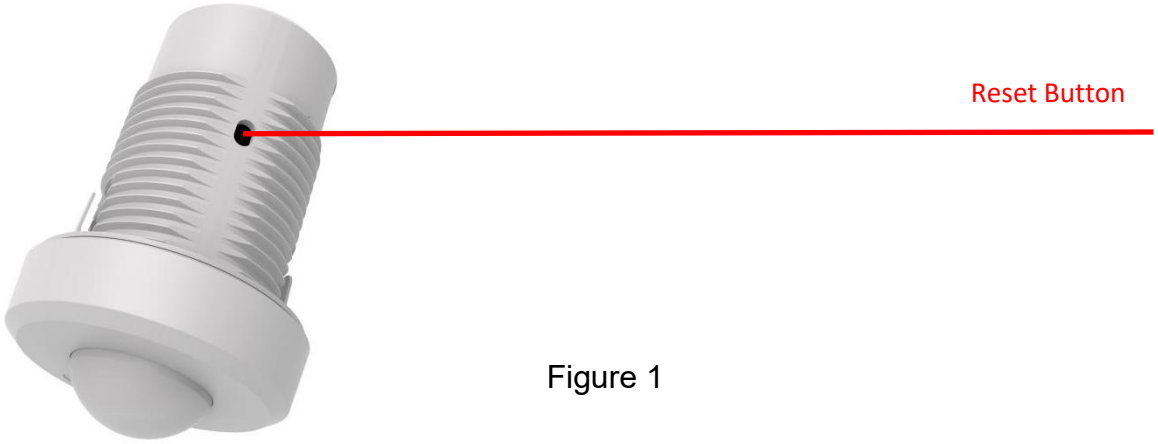


Figure 1

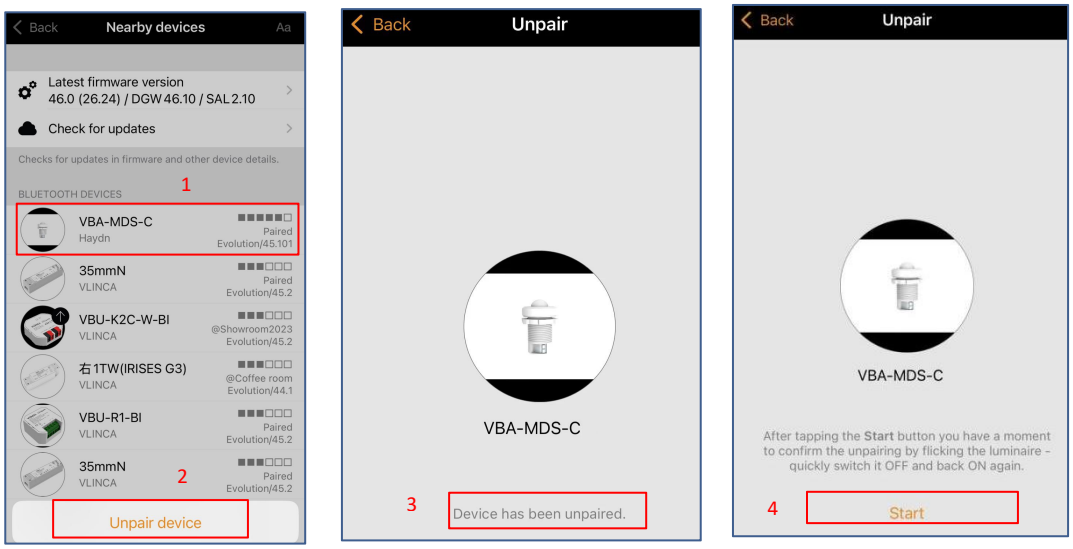


Figure 2

Quickly use the product

Step 1: Electrical Connection & Power-Up

- Correctly terminate wiring to DALI+/DALI- terminals
- Apply 12-22.5V DALI bus power

Step 2: Pairing the device into Bluetooth mesh network via Casambi App

Step 3: DALI Driver Commissioning

- Double-tap device icon in ”Luminaires” view
- Tap “Details”,execute "Scan DALI Devices".Discover DALI drivers connected to the device and display their detailed information
- Make notice,if the fixture is “control 4 ID”,then only the short address within 0-3 can be controlled.if it is “control 4 Groups DT6”,then only the group adress within 0-3 can be controlled(as in Figure 3)

Figure 3

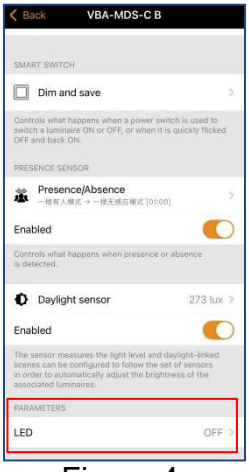


Figure 4

Step 4: Sensor Configuration

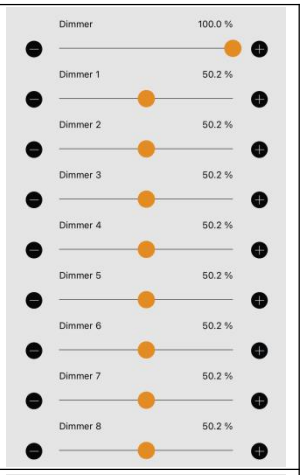
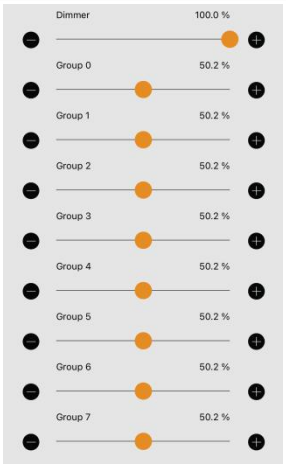
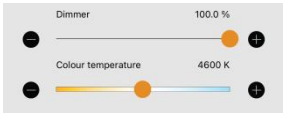
- Navigate: More > Sensors> VBA-MDS-C
- Enable PIR Motion Detection
- Activate Daylight Harvesting
- Assign scenes to sensor triggers
- If required, set the LED parameters to “ON/on” to activate Bluetooth and sensor status indicators(as in Figure 4)

Step 5: Control Hierarchy Setup
Navigate: More > Network Settings > Control Options
☑ Enable "Use Control Hierarchy"

After completing all above steps,the device becomes operational for DALI control and sensor-triggered functions.

Fixture profiles

Profile#	Profile name in app	Description	Manual App Control	
43720	VBA-MDS-C (1 ID-DT6)	DALI DT6 1xdimmer	Dimmer: A0	
43719	VBA-MDS-C (2 ID-DT6)	DALI DT6 2 x dimmers	Dimmer: A0,A1 Dimmer1: A0 Dimmer2: A1	
43718	VBA-MDS-C (3 ID-DT6)	DALI DT6 3 x dimmers	Dimmer: A0,A1,A2 Dimmer1:A0 Dimmer2:A1 Dimmer3:A2	
43717	VBA-MDS-C (4 ID-DT6)	DALI DT6 4 x dimmers	Dimmer: A0,A1,A2,A3 Dimmer1:A0 Dimmer2:A1 Dimmer3:A2 Dimmer4:A3	
43724	VBA-MDS-C (3Group-DT8)	Control 3 groups of DT8 luminaires	The first dimmer:G0 The second dimmer:G1 The third dimmer:G2 Colour temperature: adjusting temperature of all DT8 devices connected to the VBU-D-ITL conroller.	

41670	VBA-MDS-C (8 ID-DT6)	DALI DT6 8 x dimmers	Dimmer:A0,A1,A2,A3,A4,A5,A6,A7 Dimmer1:A0 Dimmer2:A1 Dimmer3:A2 Dimmer4:A3 Dimmer5:A4 Dimmer6:A5 Dimmer7:A6 Dimmer8:A7	
43721	VBA-MDS-C (8 Group-DT6)	Control 8 groups of DT6 luminaires	Dimmer:G0,G1,G2,G3,G4,G5,G6,G7 Group0:G0 Group1:G1 Group2:G2 Group3:G3 Group4:G4 Group5:G5 Group6:G6 Group7:G7	
43722	VBA-MDS-C (1 Group-DT8)	Control a group of DT8 luminaires	Dimmer: for adjusting brightness of all luminaires in the group Colour temperature: for adjusting temperature of all luminaires in the group	
43723	VBA-MDS-C (3ID-DT8)	DALI DT8 3 X dimmers	The first dimmer:A0 The second dimmer:A1 The third dimmer:A2 Colour temperature: adjusting temperature of the three DT8 devices.	

DISPOSAL INSTRUCTIONS In line with EU

Directive 2012/19/EU for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

COMPLIANCE STATEMENT

VLINCA declares that the VBA-MDS-C fully complies with Directive 2014/53/EU.

Revision record

Version	Remark	Revision date
V1.0	Newly formulate	26th June 2025