JUMiTECH

DALI CS

Datasheet
Combi Sensor Modul

DALI sensor module for presence detection and lighting control

Art. Nr. 86458621
Art. Nr. 86458621-W16
Art. Nr. 86458621-W16-AP
Art. Nr. 86458621-W16-ZD

Art.Nr. 86458621-15-W16
Art.Nr. 86458621-15-W16-AP
Art.Nr. 86458621-15-W16-ZD

Art.Nr. 86458621-O-W16 (Office)
Art.Nr. 86458621-O-W16-AP
Art.Nr. 86458621-O-W16-ZD

Art.Nr. 89453862 (CS PS 20mA)
Art.Nr. 89453862-15
Art.Nr. 89453862-O

DALI CS Combi Sensor Module

Overview

- Sensor Module for DALI lighting systems
- movement detection (PIR) and light intensity measurement
- 5 operating modes (up from FW 5.0):
  - movement triggered constant light control
  - movement triggered light control
  - movement triggered and manually activated constant light control
  - Constant light control
  - Off Only
- Corridor function – second light level before off in case of absence
- The module can be used as light controller or just as sensor unit for integration in BMS-systems

- Simple configuration with the help of the "DALI-Cockpit" software tool
- Multimaster capable – multiple sensors can be used on the same DALI-line
- Supply via DALI-line (or mains in case of DALI CS PS)
- Optimized types for different applications and detection areas (hall, office) available
- types with integrated temperature sensor available

Specification, Characteristics

type	DALI CS		
article number	86458621	86458621-15	86458621-O
application	standard	hall	office

electrical data:

supply	via DALI signal line (DALI-voltage according IEC62386)
marking terminals	DA, DA
typical current consumption DALI	3.5 mA
power consumption	<100mW
control	DALI

insulation data:

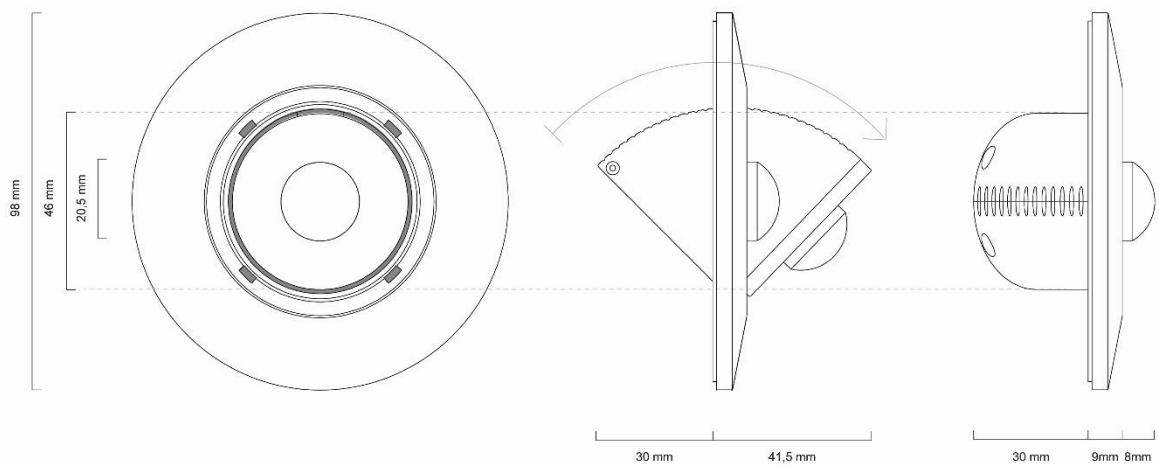|	
impulse voltage category	II
pollution degree	2
rated insulation voltage	250V
rated impuls withstanding voltage	4kV
insulation DALI/housing	reinforced isolation
insulation test voltage	3000Vac

environmental conditions:

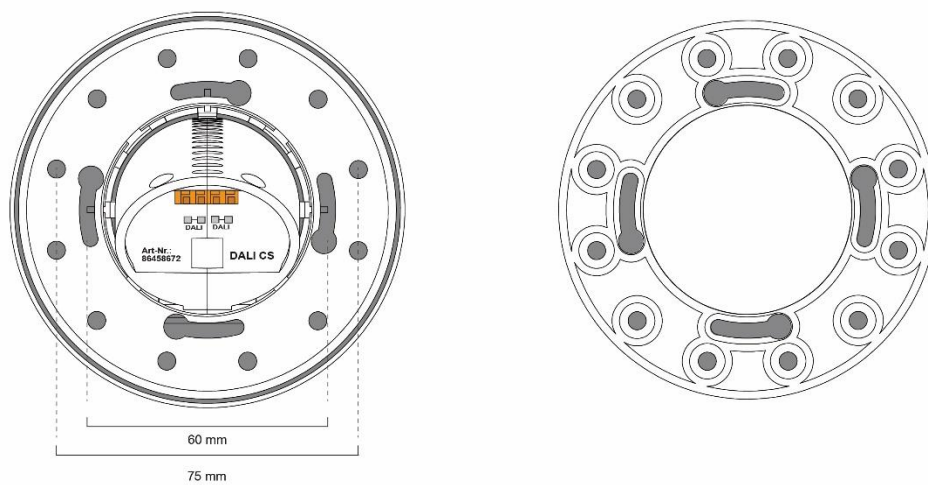|	
storing and transportation temperture	-20°C … +75°C
operational ambient temperature	-20°C … +70°C
rel. humidity, none condensing	15% … 90%

technical data:

Presence Detection:			
principle:	PIR	PIR	PIR
detection range:	12m	15m	2.3m / 3m
max. mounting height:	8m	12m	3m
zones:	92	128	36 / 48
horicontal:	±51°	±34,5°	±44°/±90°
vertical:	±46°	±34,5°	±44°/±90°
min. temp.difference:	>4°C	>4°C	>4°C
light sensor	range: 0-2500lux resolution: 1lux		
temperature sensor	range: -20°C to +70°C resolution: 1°C		
group selector	yes		
function	configureable		

general data:

protection class	II in intended use
protection degree	IP20
mounting	back box surface mounted (article number extension „-AP"), RAL9016 only suspended ceiling (article number extension „-ZD"), RAL 9016 only
available colours	RAL9010 RAL9016 (article number extension „–W16")

terminals:

connection type	spring terminal connector
wire size solid core	0,5 … 1,5 mm^2 (AWG20 … AWG16)
wire size fine wired	0,5 … 1,5 mm^2 (AWG20 … AWG16)
wire size using wire end ferrule	0,25 … 1,5 mm^2
stripping length	8,5 … 9,5 mm / 0,33 … 0,37 inch

standards:

EMC	EN 61547 EN 55015
safety	EN 61347-2-11 EN 61347-1
markings	ENEC-11, CE

```
        EB          .......          EB

  L
       DALI PS    DALI
  N

            DA DA              DA DA
          DALI CS    .....    DALI CS
```
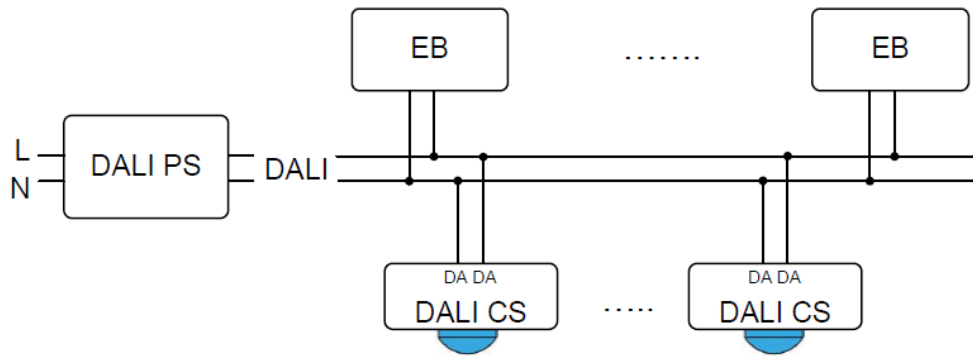
typical application: several sensors on one DALI-line

dimensions and space requirements

98 mm
46 mm
20,5 mm

30 mm   41,5 mm

30 mm   9mm 8mm

Art-Nr.:
86458672   DALI CS

DALI   DALI

60 mm

75 mm

dimensions mounting ring

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98 mm

104 mm

78 mm

33 mm
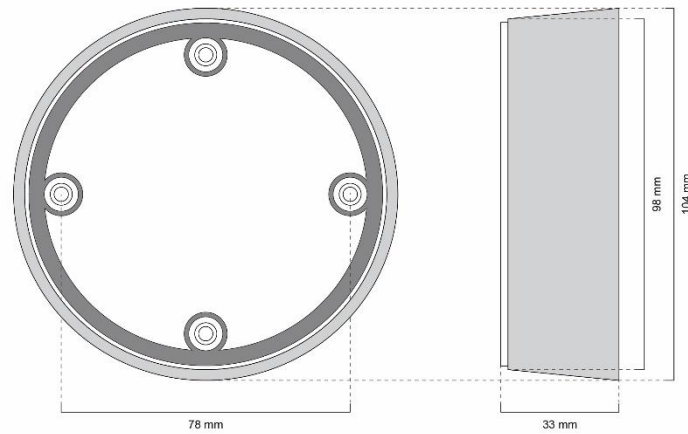
surface mounting: dimensions assessory

> 72 mm
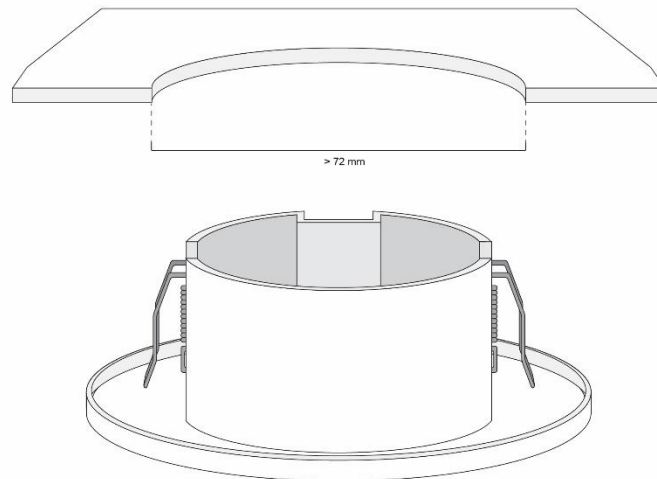
suspended ceiling: dimensions mounting hole diameter

type	DALI CS PS 20mA		
article number	89453862	89453862-15	89453862-O
application	standard	hall	office

electrical data:

supply	via DALI-line (DALI-voltage according IEC62386) or mains (230Vac)
marking terminals	DA, DA or L,N (mains)
typical current consumption DALI	3.5 mA When powered by mains: DALI-line supply max. 20mA
control	DALI

insulation data:

impulse voltage category	II
pollution degree	2
rated insulation voltage	250V
rated impuls withstanding voltage	4kV
insulation DALI/housing	reinforced isolation
insulation test voltage	3000Vac

environmental conditions:

storing and transportation temperture	-20°C … +75°C
operational ambient temperature	-20°C … +70°C
rel. humidity, none condensing	15% … 90%

technical data:

Presence Detection: principle: detection range: max. mounting height: zones: horicontal: vertical: min. temp.difference:	PIR 12m 8m 92 ±51° ±46° >4°C	PIR 15m 12m 128 ±34,5° ±34,5° >4°C	PIR 2.3m / 3m 3m 36 / 48 ±44°/±90° ±44°/±90° >4°C
light sensor	range: 0-2500lux resolution: 1lux		
temperature sensor	-		
group selector	no		
function	configurable		

general data:

protection class	II in intended use
protection degree	IP20
mounting	luminaire integration
available colours	RAL9010

terminals:

connection type	spring terminal connector
wire size solid core	0,5 … 1,5 mm^2 (AWG20 … AWG16)
wire size fine wired	0,5 … 1,5 mm^2 (AWG20 … AWG16)
wire size using wire end ferrule	0,25 … 1,5 mm^2
stripping length	8,5 … 9,5 mm / 0,33 … 0,37 inch

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sable length sensor head	ca. 400 mm
standards:	
EMC	EN 61547 EN 55015
safety	EN 61347-2-11 EN 61347-1
markings	CE
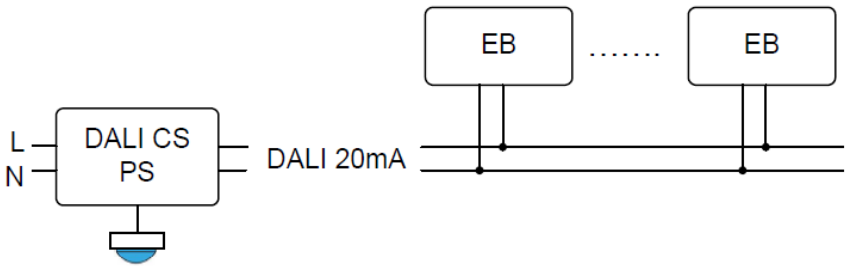
typical application DALI CS PS: self-substaining system e.g.: floor lamp integration
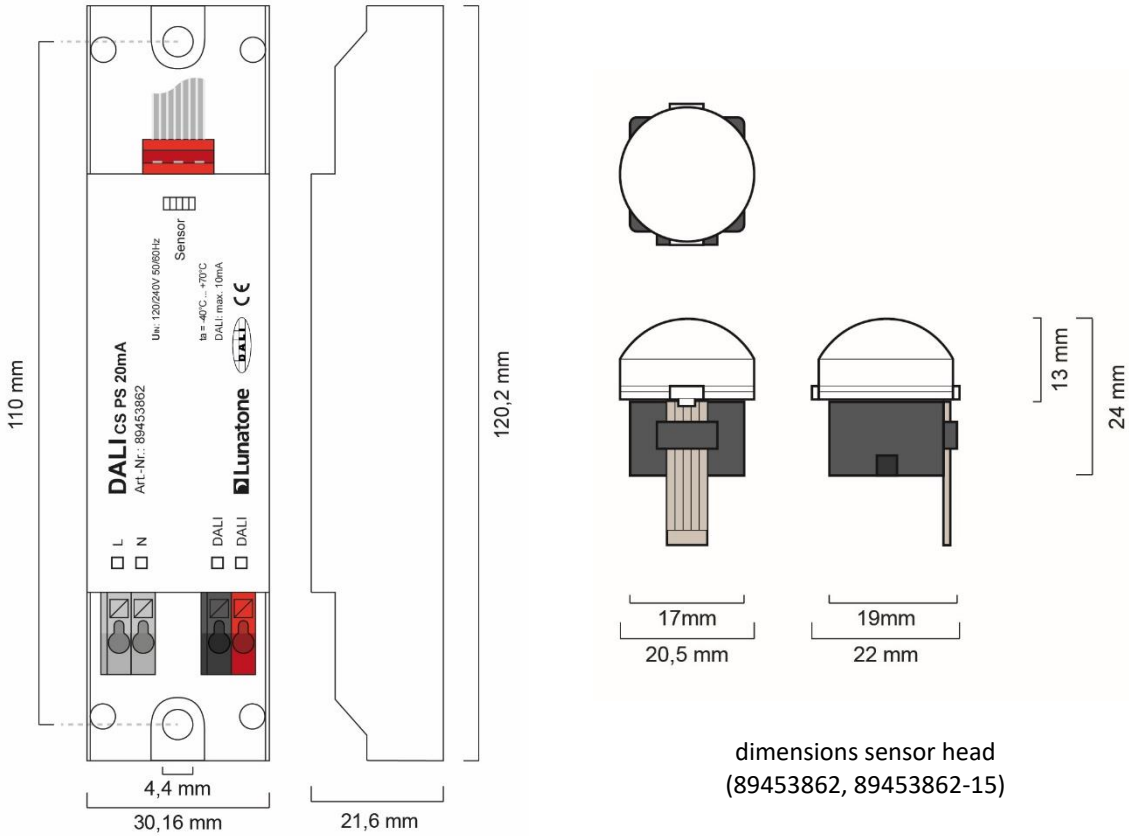
dimensions DALI CS PS 20mA

dimensions sensor head
(89453862, 89453862-15)

Installation

- the DALI CS is supplied directly by the DALI-line (typical current consumption 3.5mA)
- the DALI CS PS can alternatively be supplied by mains. In this case the module provides a bus power supply for a small DALI circuit (max. 20mA)
- the connection to the DALI-line is polarity free
- suitable connecting wire cross sections are in the range from 0.5mm^2 to 1.5mm^2
- back box mounting: the mounting ring is mounted directly on the back box. The housing can be attached to the mounting ring and will have sufficient space for fully flat installation.
- For mounting the sensor on cavity walls or suspended ceilings a special type is available (article number extension "-ZD"). This type includes additional fixtures with spring-clips.
- For surface mounting a special type is available as well (article number extension "-AP").
- Sensor adjustment to optimize detection area by variation of the declination (up to 40°) and rotation (360°)
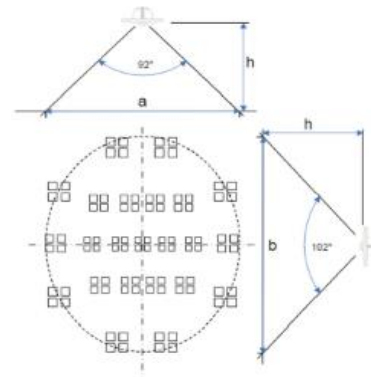
Presence Detection

A temperature difference between the moving object and environment of at least 4°C is required. Heat sources such as copiers or heaters may have a negative influence on motion detection.

Presence Detection (Standard)

The PIR method allows detection of relatively large areas by using only one sensor head. With opening angles of 46.3° and 51.3° and a sensor mounted at a height of 5 meters the 92 zones cover an area of more than 100m^2. The

distance between sensor and the object of interest should be less than 12 meters, which limits the mounting height to about 8m.

h [m]	a [m]	b [m]	A [m2]
2,50	5,2	6,2	25,1
2,7	5,6	6,7	29,3
3,0	6,2	7,4	36,2
3,5	7,2	8,6	49,2
4,0	8,3	9,9	64,3
5,0	10,4	12,3	100,4
6,0	12,4	14,8	144,6
8,0	16,6	19,8	257,1

relation of mounting height and detection area
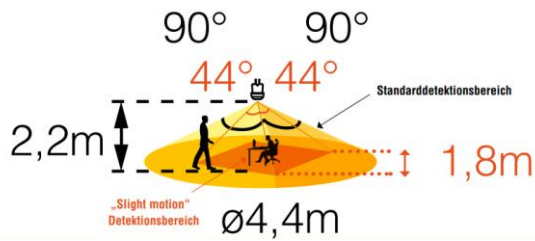
Presence Detection CS-15

The sensor type „-15" is suitable for high rooms (e.g. halls) with mouting height up to 12m. The detection range is about 15m.

h [m]	a [m]	b [m]	A [m2]
5,0	6,9	6,9	37,1
7,5	10,3	10,3	83,5
10,0	13,7	13,7	148,4
12,0	16,5	16,5	213,7

Presence Detection CS-O

For office application detection of slight motion is required (e.g. detection of arm movement of a sitting person). The DALI CS-O is tailored to this application and has an sensitive "inner area" and a standard detection "outer area". The maximum mounting height is about 3m.
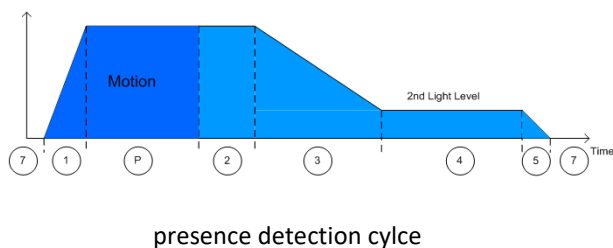
	Standard Detektionsbereich			Slight Motion Detektionsbereich	
h [m]	a [m]	b [m]	A1 [m2]	l [m]	A2 [m2]
2,0	4	4	12,5	1,6	2,56
2,2	4,4	4,4	15,2	1,8	3,24
2,5	5	5	19,6	2	4
3,0	6	6	28,2	2,4	5,76

relation of mounting height and detection area

Cycle of Movement Detection

The sequence is shown below:

presence detection cylce

States:
1: Fade In Time
2: Hold On Time (On-State)
3: Fade Time
4: Hold On Time (2nd Light Level)
5: Fade Out Time
P: Presence detected
7: Off

If motion is detected the sensor switches the "target area" to the defined light level. While presence is detected (P) or the "Hold On Time" is running (2) the light level stays on (either fix or controlled by a constant light control algorithm if activated).

After the "Hold On Time" the sensor changes the light to absence light level (2nd light level) for a defined time (4). The absence light level is a fixed value (no constant light control possible). If motion is detected in this state, the sensor again switches to the previous states (1,P). Finally the cycle ends with switching off.

HINT: we recommend to set "absence level" to a low value, otherwise it could be higher than the light level set by the constant light control.

The number 1, 3 and 5 describe only the change between the states. Depending on the DALI-commands used, fade time can be used to allow smooth changes.

Firmware-versions before V5.0 have a simplified sequence than shown above without absence value.

Light Sensor

Light measurement

All DALI CS types have also a light sensor included. The light sensor measures illuminance in a range from 0 to 2500 lux. The resolution is 1 lux (note: in fact, the sensor measures the reflected light).

The incident light is rated by the spectral sensitivity of the human eye and thus comparable to the subjective visual perception of brightness.

The incident light is accumulated over the complete area covered by the lense and hence can be interpreted as average value in the detection area. A relationship to the value measured on the reflecting surface below the mounted sensor can be defined with the help of a reference measurement.

Temperature Sensor

Das DALI CS (Standard) provides a temperature sensor as well.

Temperature Measurement

The temperature sensor covers a range from -20°C to +70°C. The resolution is 1°C.

Operating Modes

Starting from firmware version 5.0 the DALI CS module offers 5 different operating modes with different behaviour in interaction of presence detection, constant light control and manual operation (e.g. operating via another input device). The reaction on those interactions are explained for each operating mode separately.

Operating Mode 1 – Presence triggered Constant Light Control:

If motion is detected the "cycle of movement detection" is started. After switch on to a predefined value the constant light control is active until no motion detected and hold time is finished. Then the 2nd light level becomes active.

Furthermore the motion sensor activity can be coupled to ambient light behaviour - motion sensor can be set to be only active above or under a light threshold.

- Constant light control is activated on movement
- 2nd light level is a constant light level (no constant light control)
- An external *Off-Command* stops the running movement sequence

For external On-Commands 3 options are available:

A: External *On-Command* deactivates the sensor (presence detection and constant light control)

B: External *On-Command* simulates movement, the hold time starts over

C: External *On-Command* simulates movement, the constant light control is temporary deactivated

Operating Mode 2 – Presence triggered Light:

If motion is detected the light is switched to a predefined value and the motion sensor sequence is started (see pic „presence detection cycle).

Furthermore the motion sensor can be set to be only active above or under a light threshold.

- On motion a predefined light level is recalled
- Constant light control disabled
- Manual *Off-Command* activates the motion sensor

For external On-Commands 3 options are available:

A: External *On-Command* deactivates the sensor (presence detection)

B: External *On-Command* simulates movement, the hold time starts over

C: External *On-Command* is ignored by the sensor (MASK)

Operting Mode 3 – Presence triggered and manually activated Constant Light Control:

If motion is detected the motion sensor sequence is started (see pic „presence detection cycle). After switch on to a predefined value the constant light control is active until no motion detected and hold time is finished. The the 2nd light level becomes active.

The constant light control can be activated and deactivated by external On- and Off

commands as well. In this case the motion sensor becomes inactive.

Furthermore the motion sensor can be set to be only active above or under a light threshold.

- On motion constant light control is activated
- External *On-Command* activates constant light control and deactivates presence detection
- External *Off-Command* deactivates constant light control and activates presence detection
- Corridor – 2nd light level is a constant light level (no constant light control)

Operating Mode 4 – Constant Light Control:

In this operating mode only the light sensor is used, presence detection is inactive. The constant light control can be activated and deactivated manually.

- no presence detection
- External *On-Command* activates constant light control
- External *Off-Command* deactivates constant light control

Operating Mode 5 - Off Only:

In this operating mode the light has to be switched on by another control device (e.g. manual input device). The motion sensor sequence (see pic „presence detection cycle") is only be started by an external On-Command. The light can be switched Off manually or is switched Off automatically when the motion sensor sequence is finished.

- The light is switched on by an external *On-Command*

- An external *On-Command* starts or retriggers the motion sensor sequence
- An external *Off-Command* stops the motion sensor sequence and the constant light control
- Motion retriggers the motion sensor sequence
- Corridor – 2nd light level is a constant light level (no constant light control)

Behaviour on External DALI-Commands:

On-Command:

The DALI commands below are interpreted as *On-Command* if sent to target address range:

RECALL MAX
RECALL MIN
ON AND STEP UP
DAP>0%
GOTO SCENE X (it the motion sensor uses this command as On-Command)

Off-Command:

The DALI commands below are interpreted as *Off-Command* if sent to target address range:

OFF
DAP=0
GOTO SCENE X (it the motion sensor uses this command as Off-Command or to recall the 2nd light level)

Sensor behaviour on *dimming* with DALI-commands UP/DOWN:
If the effective range is dimmed by UP- or DOWN-commands (e.g. by another control device like the DALI MC), either the constant light control is deactivated or the new light level is used as temporary set value for the constant light control. The behaviour is configurable in the DALI-Cockpit by the option "temporary behaviour on manual dimming"). After light is switched Off and On the old set

value is used for the constant light control again.

On- and Off-Threshold:

The motion sensor function can be adapted to the ambient light behaviour with the help of the On- and Off-Threshold.

OnCmd Threshold: The motion sensor sequence can be started independent from the actual light level (default) or only if the light level is avove or below the OnCmd-threshold.

Off-Cmd Threshold (Bright Out): a running motion sequence can be retriggered on motion either independent from the actual light level or only if light level is below the Off-Cmd threshold (bright out).

Power-On behaviour:

In order to achieve a defined operating state after power on either a start-up command or a forced fast run of the motion sensor sequence can be used.

Multiple sensors in same group:

Several sensors can be used to control the same group (e.g. to cover a big detection area). As soon as the same target address range has been defined (destination address 1), they are synchronized automatically. The sensor parameters have to be similar, especially the same hold on times should be used.

Variable Operating Behaviour:

Firmware version 5.1 and higher offer the feature to change the operating behaviour during operation. Therefore either scene commands or proprietary commands can be used.

For each of the 16 scenes another behaviour can be configured. The following options are available:

- **1 – No Action (MASK):** recalling this scene has no effect (=default)
- **2 – Constant light control and presence detection inactive:** typical behaviour if a static scene is recalled (e.g. entrance area during an event). The sensor can be activated again by an Off-Command of properly configured scene command.
- **3 – Constant light control incative, activated again after hold time:** typical behaviour for a temporary scene recall (e.g. presentation), if presence is no longer detected the sensor switches off the light.
- **4 – Waiting for movement:** the sensor is forced to State 7 (Off-state) and waiting for movement (e.g. for activating sensor again it has been deactivated before)
- **5 – Back to basic settings:** Switch back to standard settings (e.g.: to activate automatic mode again after sensor has been disabled or to switch back to the standard reference light level if an alternative value has been used)
- **6 – Alternative On-Command DAP:** Use of an alternative value to switch on (e.g. different day/night settings in warehouses)
- **7 – Alternative On-Command Scene:** Use of an alternative scene command to switch on (e.g. different day/night scene at entrance area)
- **8 – Alternative reference ligt level:** Use of an alternative reference light level for the constant light control (e.g.: work with more light)
- **9 – Alternative effective range:** Use another effective range - 4 groups or short addresses (e.g.: room divider)

Factory Setting and Manual Configuration

For simple applications the factory settings are sufficient:

Setting	Value
Operating mode	2A, presence triggered light, an external *On-Command* deactivated presence detection and constant light control
Effective range	Broadcast
On-command	Recall Max
Hold Time	10min
Absence Value	none
Hold Time Absence	0s
Off-command	Off
OnCmd Threshold	none
OffCmd Threshold	none
PowerUp behaviour	no action
Constant Light Control (CLC)	inactive
Temperature sensor	no action

The target address range can be set with the rotary switch on the back of the device (if available). The last set of the effective range will be used, regardless of whether this was changed via rotary switch or via DALI Cockpit.

rotary switch	target address range
0	Broadcast
1	G0
2	G1
3	G2
4	G3
5	G4
6	G5
7	G6
8	G7
9	G8
10	G9
11	G10
12	G11
13	G12
14	G13
15	G14

Configuration in DALI-Cockpit

The addressing and configuration of the DALI CS can be done easily with the help of the DALI Cockpit software tool. After an address

has been assigned the parameters of each device can be set up.

The spatial allocation of sensor and DALI address can be done by visual feedback when selected. For this purpose the red LED integrated in the sensor must be forced to flash – this feature can be activated in the DALI-Cockpit in the "Localize"-checkbox.

There are several tabs for setting up the sensor.

„Settings" – Operating Mode, Sensor Mode and DALI Access

The basic function of the device can be setup in the „Settings"-tab.
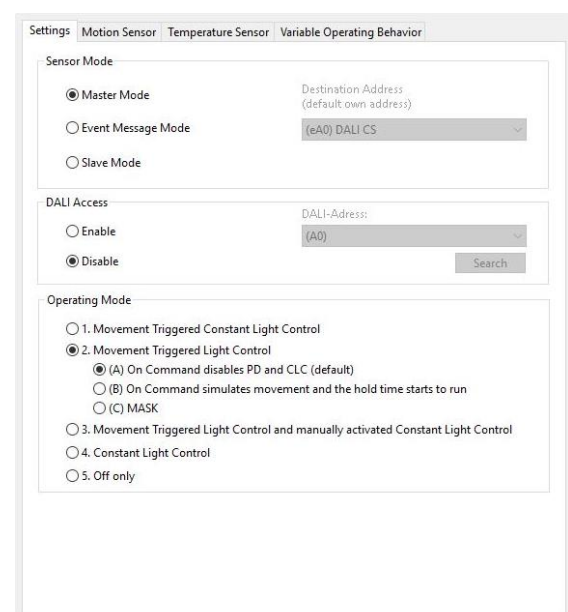
The basic use case of the sensor can be configured with the help of the "Sensor Mode". The module can act either as controller or as sensor unit (e.g. in combination with a central control unit).

Master Mode (Default)

In this operating mode the DALI CS acts as control device and sends event-based DALI-commands to DALI control gear as defined in the settings.

Event Message Mode

In this mode control gear are not controlled directly by the sensor. Instead the proprietary sync-commands of the motion sensor can be redirected to any given address (e.g. to the sensor itself so that the source of the message can be allocated). These event messages can be evaluated by a central control unit. Light and temperature values can be queried.

Slave Mode

The DALI CS does not send out any commands. It only answers to queries.

For controls who do not support the proprietary commands a standard DALI address can be assigned to the DALI CS and the sensor values can be read out using QUERY SCENE LEVEL commands (see also: "Query Sensor Values").

The box "DALI-Access" can be used to assign a DALI-address to the device. Via this device the sensor values can be queried.

Furthermore the operating mode can be selected in the so-named box.

In addition the OnCmd-Threshold and the OffCmd-Treshold for the light level can be defined. The adjustable range of the threshold values is from 0...1020 Lux (step size: 4 lux).

The following commands can be used as "On-Command" (1): DAP, RECALL MAX, RECALL MIN, GOTO LAST ACTIVE LEVEL, GOTO SCENE X;

For recalling the second light value the following commands can be used (3): no action, DAP, RECALL MAX, RECALL MIN, GOTO SCENE X;

Finally for the "OFF-command" (5) these commands are available: DAP, OFF, GOTO SCENE X;

„Motion Sensor" – Configuration of the motion sequence

In this tab the effective range and the motion sequence can be configured (see pic „presence detection cycle).

The effective range for motion and light sensor are always the same!

„Light sensor" – constant light control (CLC)

In this tab the parameters of the constant light control (CLC) can be set. The reference value can be defined (0...2040Lux, step size 8 Lux).

Furthermore the temporary behaviour of the sensor (constant light control) when dimming commands (UP/DOWN) are sent to the repective "destination address" of the sensor

(first address only) can be configured. The CLC can either be disabled („Disable CLC") or the new light value is temporary used as reference value for the CLC („Auto Adjust Ref Light Level").

As alternative to the constant light control the light sensor can be used as threshold switch with hysteresis (Threshold (0…1020 lux, Stepsize 4lux), Hysteresis (0..255 lux)).

„Temperature Sensor"

A threshold switch with hysteresis is also available for the temperature sensor.

The settings of the temperature sensor are independent from motion and light, another destination address can be used.

The threshold can be varied form -20°C to 70°C (hysteresis from 0.1° to 25.5°).

„Variable Operating Behaviour"

In this tab different operating behaviours can be defined:

Parameter adaption using the DALI Daylight module

After the device configuration is finished the DALI CS acts with the configured parameters. For individual adaption of the customer the DALI Daylight module can be used. With the help of the DALI Daylight app several parameters can be adapted.

Proprietary Commands

The sensor can be set up without DALI Cockpit by using proprietary commands.

Operating Modes:

Switching between operating modes can be done by:

Cmd225 Set DTR As Operating Mode

Cmd226 Query Operating Mode

Binary values:
0000 0000 … slave mode
0000 0010 … event message mode
0000 0001h … master– operating mode 1
0001 0001h … master– operating mode 2
0010 0001h … master– operating mode 3
0100 0001h … master– operating mode 4
1000 0001h … master– operating mode 5

Constant light control (CLC):

Activate/deactivate CLC:

Cmd 218   Store DTR As CLC Mode

Cmd 219   Query CLC Mode

Constant Light Control Mode Configuration:
0 … constant light control disabled
1 … constant light control enabled + temporary disable CLC at manual dimming

2 … constant light control enabled + temporary adjust reference value at manual dimming

Set CLC Reference Value:

Cmd 220 Store DTR as CLC Reference Value

Cmd 221 Query CLC Reference Value

CLC Reference value = value * 8lux

Variable Operating Behaviour

Cmd240 Activate Custom Scene Behaviour
DTR-Values:
0…15 Number of Custom Scene Behaviour

Query Sensor Values:

The measurement values of the sensor can be read out either by proprietary commands or by QUERY SCENE VALUE commands after assigning a standard DALI address to the DALI CS. Find all relevant commands below.

Proprietary Commands:

Supported Sensors:

Cmd215   Query Supported Sensors
bit 0: Motion Sensor supported
bit 1: Light Sensor supported
bit 2: IR sensor supported
bit 3: Temp Sensor supported

Motion Sensor:

Cmd200   Query Motion Status
0 … no motion detected
1 … motion detected
2 … motion has been detected, delay running

Cmd101 Motion Sensor OFF-State

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Sync-Command, sent by sensor to effective range at the end of the motion sequence (when going to OFF state)

Cmd102 Motion Sensor ON-State

Sync- Command, sent by sensor to effective range when motion is detected (switch to On-State or retrigger by motion)

Cmd105 Motion Sensor MIN-State

Sync-Command, sent by sensor to effective range after hold time is finished (goto MIN-state; 2nd light level)

Light sensor:

Cmd205 Query Light Level Low
has to be read out first
Cmd206 Query Light Level High
*Light Level = Light Level High * 256 + Light Level Low*

temperature sensor:

Cmd210 Query Temperature
Temp = (answer-80)/2 [-40°C … 87,5°C]

Query via Scene Values:

Assigning a DALI address (DALI-Access):

Cmd212 Set DTR As DALI Short Address

Cmd213 Query DALI Short Address

Cmd212 Set DTR As DALI Access Mode

DALI Access Mode:
0 … access via DALI Address disabled
1 … access via DALI Address enabled

temperature:

DALI176   Query Scene 0 Value
Temp High in °C [-128°C bis +127°C]
DALI177   Query Scene 1 Value
Temp Low in 1/256°C

Temp= Temp High + Temp Low / 256

light level:

DALI 178   Query Scene 2 Value
Light Level High in Lux, dieser Wert muss als erster ausgelesen werden
DALI 179   Query Scene 3 Value
Light Level Low in Lux

*Light Level = Light Level High * 256 + Light Level Low*

motion:

DALI 180   Query Scene 4 Value
Motion Status:
0 … no motion
1 … motion detected
2 … motion has been detected, delay running
Bewegung:

Purchase Order Information

Art.Nr. 86458621: DALI CS, sensor module (motion/ light/ temperature), pure white (RAL9010), back box

Art.Nr. 86458621-W16: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), back box

Art.Nr. 86458621-W16-AP: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), surface mouting

Art.Nr. 86458621-W16-ZD: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), suspended ceiling

Art.Nr. 86458621-15-W16: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), presence detection range 15m, back box

Art.Nr. 86458621-15-W16-AP: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), presence detection range 15m, surface mouting

Art.Nr. 86458621-15-W16-ZD: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), presence detection range 15m, suspended ceiling

Art.Nr. 86458621-O-W16: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), for office applications, back box

Art.Nr. 86458621-O-W16-AP: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), for office applications, surface mouting

Art.Nr. 86458621-O-W16-ZD: DALI CS, sensor module (motion/ light/ temperature), traffic white (RAL9016), for office applicaitons, suspended ceiling

Art.Nr. 89453862: DALI CS PS, sensor module (motion/ light), integrated bus power supply 20mA, pure white (RAL9010), luminaire integration

Art.Nr. 89453862-15: DALI CS PS, sensor module (motion/ light), integrated bus power supply 20mA, pure white (RAL9010), presence detection range 15m, luminaire integration

Art.Nr. 89453862-O: DALI CS PS, sensor module (motion/ light), integrated bus power supply 20mA, pure white (RAL9010), for office applications, luminaire integration

Additional Information

Datasheets and manuals
https://jumitech/produkter

DALI-Cockpit – free configuration tool from Lunatone for DALI systems
http://lunatone.at/en/downloads/Lunatone_DALI-Cockpit.zip

Contact

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Requests: salg@jumitech.dk

www.jumitech.dk

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DALI CE

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.