



The DALI Ambient Sensor measures illuminance and Correlated Colour Temperature properties and uses a DALI bus for biasing and communication. It can be used as a simple sensor with its data being processed by another device on the same DALI bus, or as a combined sensor and control device to regulate the luminous output and colour temperature parameters of DALI addressed Tunable White luminaires.

Key features

- Biasing from the DALI bus with an input voltage range compatible with the DALI standard
- Illuminance and CCT measurement
- Passive / Active Mode – offers direct regulation of Tunable White luminaires
- Configuration via DALI bus
- Installation into ceiling

Function

The DALI Ambient Sensor measures illuminance and Correlated Colour Temperature (CCT) properties within its scanning area – illuminance in lux and CCT in Kelvins. Measurement occurs automatically using automatic range switching within an illuminance range of 100-30,000 lx and CCT range of 2500-8000 K. The sensor communicates using the industry standard DALI protocol once addressed and set using any standard DALI configuration tool. Additional sensor parameters can be set using a DALI/USB bridge and related software tool.

By default, the sensor functions in passive mode with regulation disabled and where measured values can only be read. The basic parameters required for regulation are desired illuminance and CCT values and connection to type-defined and controllable Tunable White luminaires. The sensor can be used to regulate warm/cold two-channel luminaires, brightness/ CCT two-channel luminaires and DALI type 8 luminaires. It is possible to assign each channel its own address, for example, a cold channel, warm channel, brightness channel, CCT channel or DALI type 8 channel. All connected Tunable White luminaires can be controlled in parallel using illuminance only regulation, CCT only regulation or dual regulation.

The parameters and properties of the DALI Ambient Sensor are outlined in the table below.

Connections

Cable Wires AWG 24 (0.5 mm²)

Power

Voltage at DALI input 12-25 V DC
Input current < 9 mA

Mechanical data

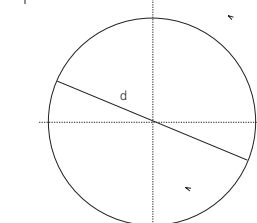
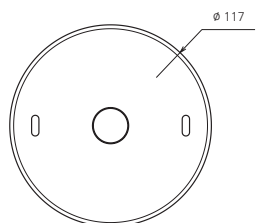
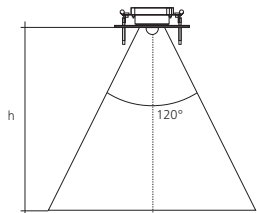
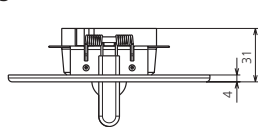
IP Rating IP40
Weight 200 g
Dimensions Ø 117 x 40 mm
Opening Ø 105 mm

Operating conditions

Ambient temp. range 0 °C - +40 °C
Relative humidity 85 % (non-condensing)
Storage temp. range -40 °C - +70 °C

DALI Ambient Sensor

Dimensions



Height (m)	Diameter (m)
1.7	5.89
2	6.93
2.3	7.97
2.5	8.66
2.7	9.35
3	10.39
3.5	12.12
4	13.86

Parameter	Ranges of values	Settable by	Description
Address	1- 64	Any DALI configurator	Address of the sensor
Illuminance level	100-30,000 lx	-	Measured illuminance value (read only)
CCT level	2500-8000 K	-	Measured CCT value (read only)
Status	-	-	Status of the sensor (see below)
Timing	5-300 ms	DALI/USB Bridge	The defined period between two subsequent control commands (a lower value results in faster regulation)
Final illuminance level	100-30,000 lx	DALI/USB Bridge	Desired illuminance value
Final CCT level	2500-8000 K	DALI/USB Bridge	Desired CCT value
Illuminance regulation	Active / Inactive	DALI/USB Bridge	Activates or deactivates the illuminance regulation
CCT regulation	Active / Inactive	DALI/USB Bridge	Activates or deactivates the CCT regulation
Regulation mode	Cold/warm, Brightness/ CCT, DALI type 8	DALI/USB Bridge	Defines the addressing of TW luminaires – it is possible to use more address types at the same time
Warm channel group address	1-16	DALI/USB Bridge	Defines group address for warm channel control
Cold channel group address	1-16	DALI/USB Bridge	Defines group address for cold channel control
Brightness channel group address	1-16	DALI/USB Bridge	Defines group address for brightness channel control
CCT channel group address	1-16	DALI/USB Bridge	Defines group address for CCT channel control
DALI type 8 group address	1-16	DALI/USB Bridge	Defines group address for DALI type 8 control

5 Year Warranty

The Company reserves the right to change any product specifications without prior notification.

HEAD OFFICE

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