



Sensor HC1

Monsun® 12/22 parking Commissioning Instruction

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1. Application



The HC1 sensor was developed for the detection of people and vehicles indoors.
It is not permitted to operate the sensor in areas close to buildings or in outdoor areas!

Sensor HC1		
Application	Remark	Release
staircase	closed building, brick or concrete wall	yes
supply corridor	closed building, brick or concrete wall	yes
underground car park	closed building, brick or concrete wall	yes
car park	closed building, brick or concrete wall	yes
staircase	Open building (wind, rain, etc.), lightweight wall, glass surfaces	no
supply corridor	Open building (wind, rain, etc.), lightweight wall, glass surfaces	no
car park	Open building (wind, rain, etc.), lightweight wall, glass surfaces	no

The instruction applies to the following products:

Sensor HC1		
Familie	Product Name	Order code
Monsun® 12 parking	Monsun® 12 parking, HC1 Master	51FG20DP440HHR
Monsun® 12 parking	Monsun® 12 parking, HC1 Slave/DALI2	51FG20DP440HHQ
Monsun® 22 parking	Monsun® 22 parking, HC1 Master	51FG20DP440BHR
Monsun® 22 parking	Monsun® 22 parking, HC1 Slave/DALI2	51FG20DP440BHQ
Monsun® 12/22 parking	Monsun® 12/22 parking, Sensor-Kit HC1 Master	58FSHR1

Monsun® 12/22 parking	Monsun® 12/22 parking, Sensor-Kit HC1 Slave/DALI2	58FSHQ1
-	commissioning remote	5LZ904307

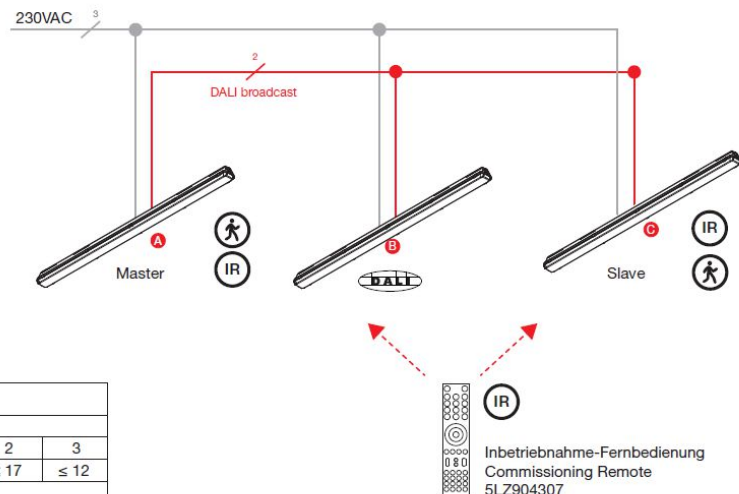
2. Local Control

Correctly installed / connected components are required.

2.1 Scheme

Scheme/Schema

Monsun® 12/22 Parking Sensor HC1 - lokale Steuerung
Monsun® 12/22 parking sensor HC1 - local Control



Systemgröße/System size					
Master A	1				
Slave B	0	0	1	2	3
DALI-EVG C	≤ 32	≤ 27	≤ 22	≤ 17	≤ 12
Tasterschnitt/pushbutton interface D	0	≤ 1			

Bei Sensor-Leuchten bitte die in der Leuchte verbauten EVG's und Sensoren mit beachten!
 When using sensor luminaires please take care about the internal mounted DALI-ECG's and sensors!

* DALI: maximale Gesamtleitungslänge 100m bei Verlegung z. B. NYM5G1,5 mm²
 ** Taster bauseitig: maximale Leitungslänge 2m zwischen Taster und Tasterschnittstelle

Die obige Darstellung zeigt nur einen exemplarischen Schaltplan eines Lichtmanagementsystems. Für einen konkreten Anwendungsfall ist zwingend eine individuelle Planung (insbesondere Leitungs- und Stromkreisdimensionierungen, Leitungsarten, Brandschottungen, Trassenführungen, etc.) durch qualifiziertes Personal erforderlich. Die Siteco GmbH übernimmt keinerlei Haftung für die Richtigkeit der obigen Darstellung

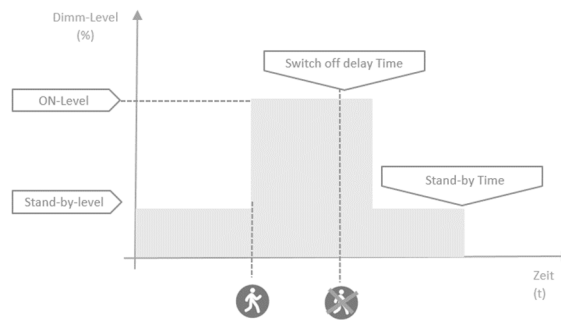
The illustration above only shows an exemplary circuit diagram of a light management system. For a specific application, individual planning (in particular line and circuit dimensions, line types, fire barriers, cable routing, etc.) a qualified personnel is essential. The SITECO GmbH assumes no liability for the correctness of the above representation.

2.2 Out of the box-Function

Correctly installed / connected components are required.

Delivery with the following function settings.

All functions can be changed with the commissioning remote control 5LZ904307.

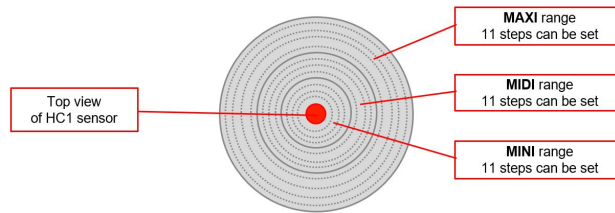


Out of the box-Function

Feature	Factory Setting	Possible Settings
ON-Level	100%	yes
Switch off Delay time	15min	yes
Stand-by-level	OFF	yes
Stand-by-time	OFF	yes
Movement detection	MAXI, step 23	Detection reach step MINI, MIDI, MAXI
Daylight detection	OFF	-

2.3 Sensor Detection Areas

The range of the HC1 sensor can be specifically adjusted to the respective application.



Mounting height 2m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 2...3m	r = ca. 4...6m
MIDI	12...22	r = ca. 3...5m	r = ca. 6...9m
MAXI*	23*	r = ca. 5m*	r = ca. 8m*
MAXI	24...33	r = ca. 6...13m	r = ca. 10...15m

Mounting height 3m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 2...3m	r = ca. 2m
MIDI	12...22	r = ca. 3...5m	r = ca. 3...4m
MAXI*	23*	r = ca. 6m*	r = ca. 7m*
MAXI	24...33	r = ca. 6...12m	r = ca. 7...15m

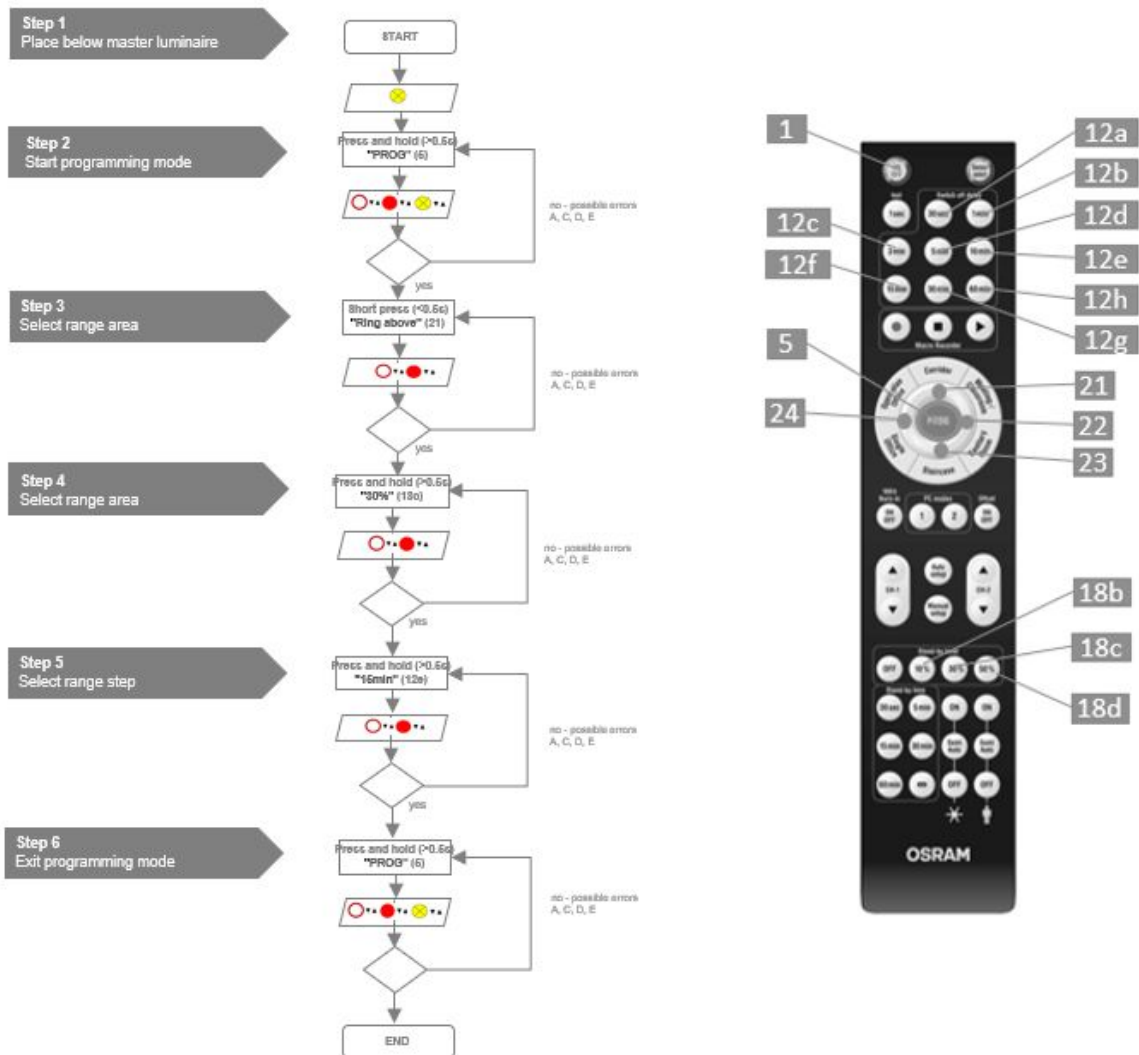
Mounting height 4m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 1m	r = ca. 1m
MIDI	12...22	r = ca. 3...5m	r = ca. 6...9m
MAXI*	23*	r = ca. 5m*	r = ca. 7m*
MAXI	24...33	r = ca. 5...12m	r = ca. 7...15m

*factory setting

2.4 Sensor HC1-Master – setup detection reach

All functions can be changed with the commissioning remote control 5LZ904307.



Reach settings								
Range	Level	Key	Range	Level	Key	Range	Level	Key
MINI (key 18b)	1	24	MIDI (key 18c)	12	24	MAXI (key 18d)	23*	24
	2	12a		13	12a		24	12a
	3	12b		14	12b		25	12b
	4	12c		15	12c		26	12c
	5	12d		16	12d		27	12d
	6	23		17	23		28	23
	7	12e		18	12e		29	12e
	8	12f		19	12f		30	12f
	9	12g		20	12g		31	12g
	10	12h		21	12h		32	12h
	11	22		22	22		33	22

2.5 Sensor HC1-Slave - setup detection reach

All functions can be changed with the commissioning remote control 5LZ904307.

Step 1
Place below slave luminaire

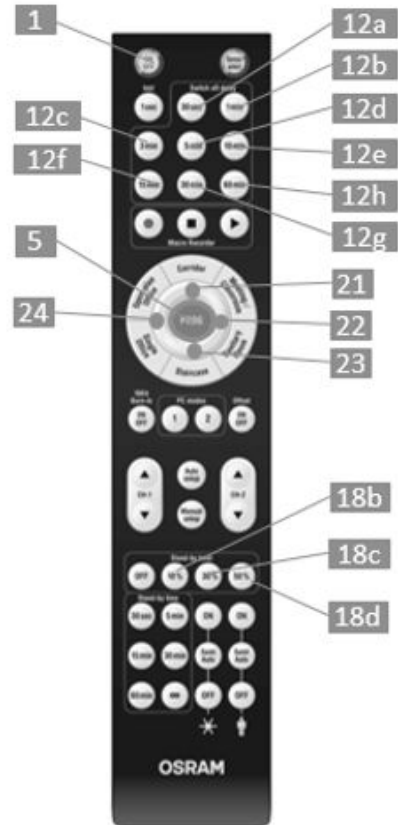
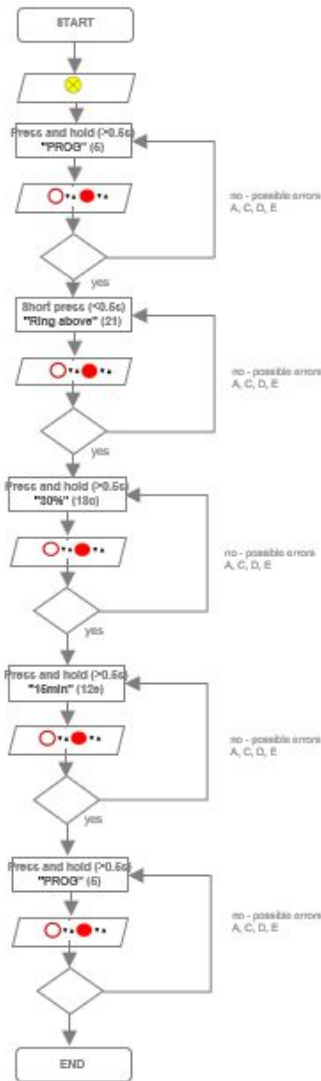
Step 2
Start programming mode

Step 3
Select range area

Step 4
Select range area

Step 5
Select range step

Step 6
Exit programming mode

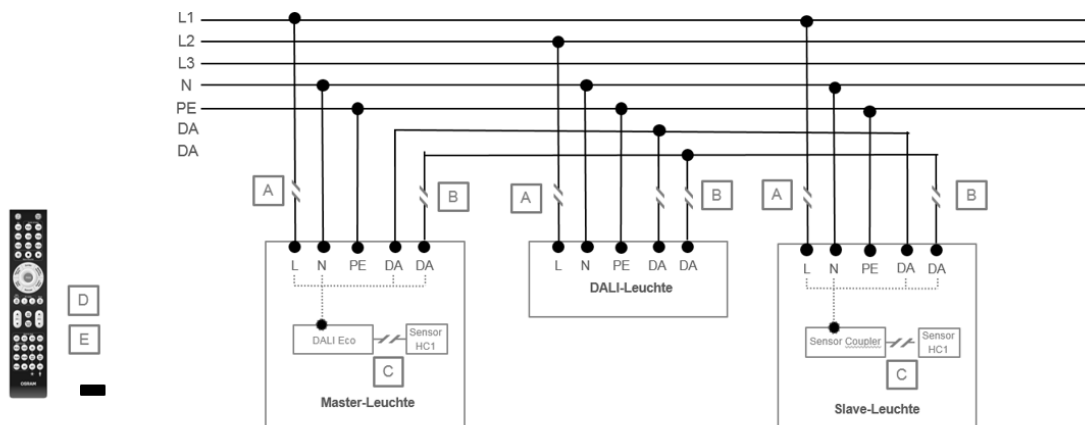


Reach settings								
Range	Level	Key	Range	Level	Key	Range	Level	Key
MINI (key 18b)	1	24	MIDI (key 18c)	12	24	MAXI (key 18d)	23*	24
	2	12a		13	12a		24	12a
	3	12b		14	12b		25	12b
	4	12c		15	12c		26	12c
	5	12d		16	12d		27	12d
	6	23		17	23		28	23
	7	12e		18	12e		29	12e
	8	12f		19	12f		30	12f
	9	12g		20	12g		31	12g
	10	12h		21	12h		32	12h
	11	22		22	22		33	22

2.6 Trouble Shooting – local control

System reaction

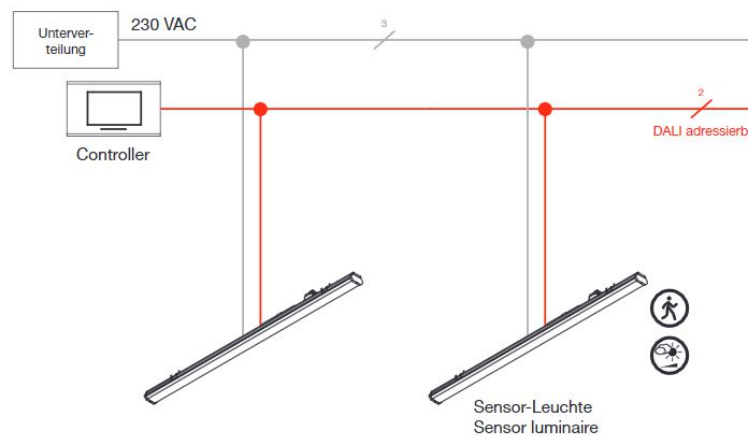
Luminaire	Reaction		Problem
Master-luminaire	does not respond to movement	Master-luminaire OFF	no mains voltage (A) Master-luminaire deactivated CH1
Master-luminaire	does not respond to movement	Master-luminaire ON	Sensor interruption (C)
Master-luminaire	does not respond to remote control	Master-Sensor does not flash red	empty battery (E) IR communication (D) no mains voltage(A) sensor interruption (C)
Master-luminaire	is permanently ON despite no movement	Master-Sensor flashes green	setup sensor detection reach
Master-luminaire	is permanently ON despite no movement	Master-Sensor does not flash	setup switch off delay time
DALI-luminaire	does not switch ON with Master- and Slave luminaires	-	no mains voltage (A) DALI error (B)
Slave-luminaire	does not respond to movement	Slave-luminaire OFF	Master-luminaire deactivated CH1
Slave-luminaire	does not switch ON with Master- and DALI luminaires	Slave-Sensor does not flash	no mains voltage (A) DALI error (B)
Slave-luminaire	does not respond to remote control	Slave-Sensor does not flash red	empty battery (E) IR communication (D) no mains voltage (A) Sensor interruption (C)
Slave-luminaire	is permanently ON despite no movement	Slave-Sensor flashes green	Setup sensor detection reach sensor detects neighbor areas
Slave-luminaire	is permanently ON despite no movement	Slave-Sensor does not flash	setup switch off delay time
Slave-luminaire	does not respond to movement	Slave-luminaire OFF	no mains voltage (A)
Slave-luminaire	does not respond to movement	Slave-luminaire ON	sensor interruption (C)
Slave-luminaire	does not respond to movement	Slave-Sensor flashes green	DALI error (B)



3. Connection to a DALI2 gateway

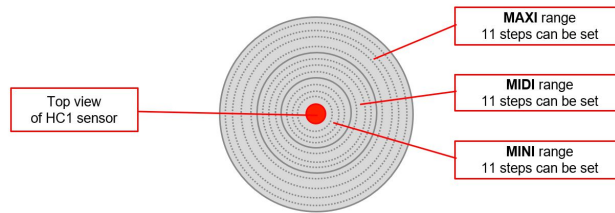
3.1 Scheme

Sensor HC1 Slave can be connected to all DALI2-certified LMS or BMS systems via a DALI2-certified interface. Attention: DALI2 certification according to part 101, 103, 303 and 304 necessary!



3.2 Sensor Detection Areas

The range of the HC1 sensor can be specifically adjusted to the respective application.



Mounting height 2m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 2...3m	r = ca. 4...6m
MIDI	12...22	r = ca. 3...5m	r = ca. 6...9m
MAXI*	23*	r = ca. 5m*	r = ca. 8m*
MAXI	24...33	r = ca. 6...13m	r = ca. 10...15m

Mounting height 3m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 2...3m	r = ca. 2m
MIDI	12...22	r = ca. 3...5m	r = ca. 3...4m
MAXI*	23*	r = ca. 6m*	r = ca. 7m*
MAXI	24...33	r = ca. 6...12m	r = ca. 7...15m

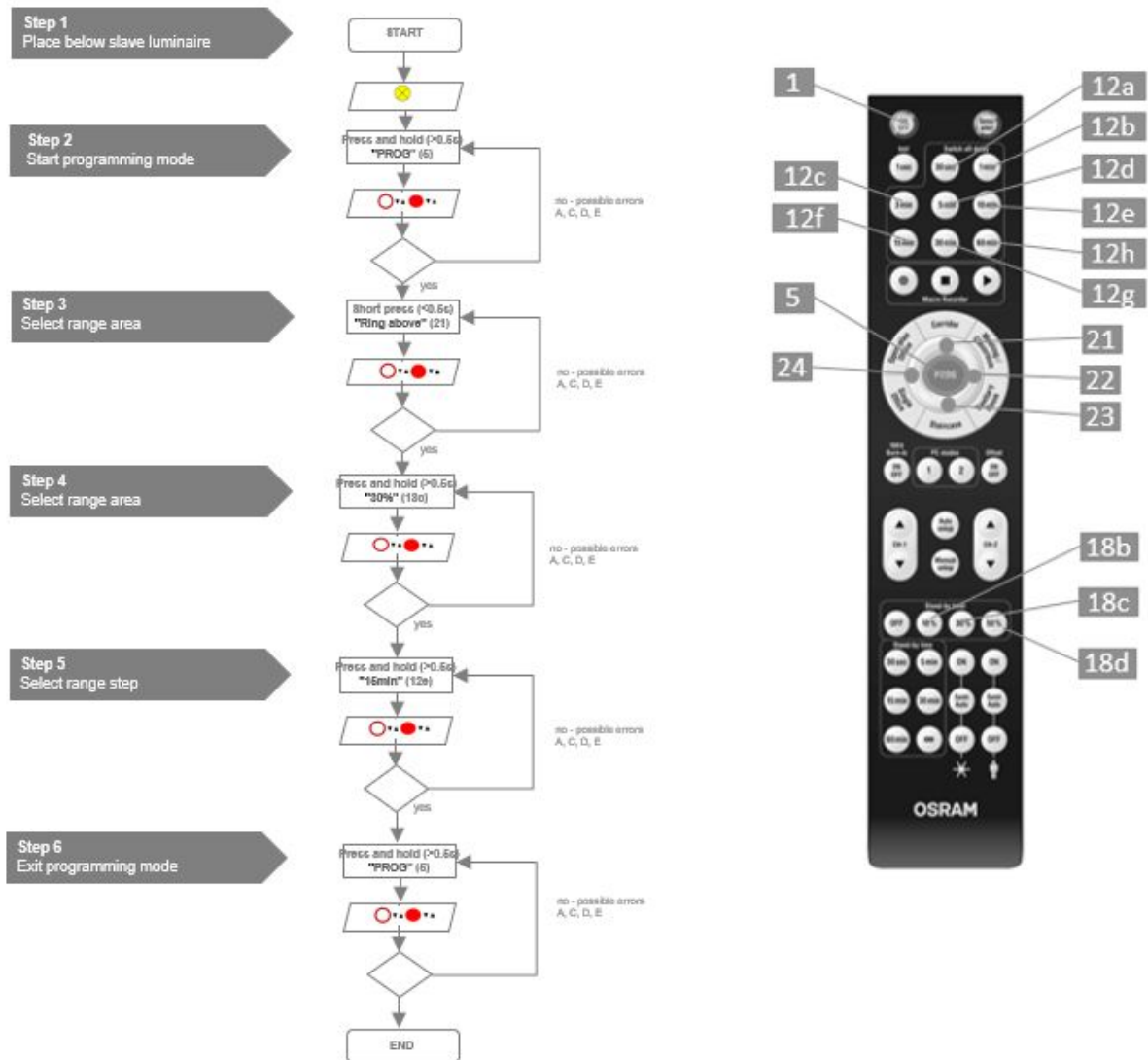
Mounting height 4m – Sensor- Reach (free field detection)

Detection Reach	Reach Step	Radial detection	Tangential detection
MINI	1...11	r = ca. 1m	r = ca. 1m
MIDI	12...22	r = ca. 3...5m	r = ca. 6...9m
MAXI*	23*	r = ca. 5m*	r = ca. 7m*
MAXI	24...33	r = ca. 5...12m	r = ca. 7...15m

*factory setting

3.3 Sensor HC1-Slave - setup detection reach

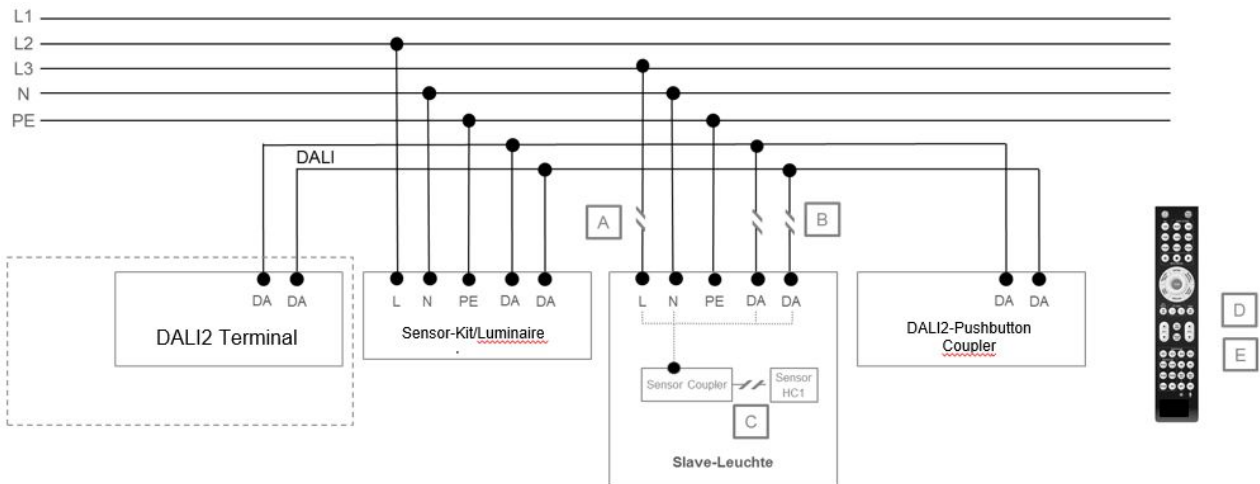
All functions can be changed with the commissioning remote control 5LZ904307.



Reach settings								
Range	Level	Key	Range	Level	Key	Range	Level	Key
MINI (key 18b)	1	24	MIDI (key 18c)	12	24	MAXI (key 18d)	23*	24
	2	12a		13	12a		24	12a
	3	12b		14	12b		25	12b
	4	12c		15	12c		26	12c
	5	12d		16	12d		27	12d
	6	23		17	23		28	23
	7	12e		18	12e		29	12e
	8	12f		19	12f		30	12f
	9	12g		20	12g		31	12g
	10	12h		21	12h		32	12h
	11	22		22	22		33	22

3.4 Trouble Shooting – central DALI2 gateway

System reaction		problem
luminaire does not switch ON	Slave/DALI2-Sensor does not flash	no mains voltage (A)
luminaire does not switch OFF	Slave/DALI2-Sensor does not flash	DALI error (B)
sensor luminaire does not react to movement	Slave/DALI2-Sensor does not flash red	empty battery (E) IR communication (D) no mains voltage (A) sensor interruption (C)
luminaires continuously ON despite no movement	Slave/DALI2-Sensor does not flash green	setup sensor detection reach sensor detects neighbor areas
luminaires continuously ON despite no movement	Slave/DALI2-Sensor does not flash	setup switch off delay time
luminaire does not react to movement	Slave-luminaire OFF	no mains voltage (A)
luminaire does not react to movement	Slave-luminaire ON	sensor interruption (C)
luminaire does not react to movement	Slave/DALI2-Sensor flashes green	DALI error (B)



4. Contact

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