LiCS INDOOR

LIGHT CONTROLLER S

LIGHT CONTROLLER S

For independent operation

The Light Controller S is designed for independent operation (e.g. in false ceilings). In accordance with the DALI standard, up to 64 ballasts can be connected. In addition, up to 36 VS MultiSensors can be integrated at the DALI bus. The following functions can be selected using the dip switch on the Light Controller S.

Typical applications

- Offices and meeting rooms
- Industry and warehouse areas
- Supermarkets and shops
- Stairwells and hallways
- Sanitary facilities

Functions of the Light Controller S

- **PUSH FUNCTION (64 EBs SYNCHRONOUS)**
- **ON/OFF FUNCTION**
- **AUTOMATIC AND SEMI-AUTOMATIC MOTION DETECTION**
- **CONSTANT LIGHT SETTING**
- **STAIRWELL FUNCTION (TIMER FUNCTION)**

VS LIGHTING SOLUTIONS

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Overview of the LiCS Indoor System

Product matrix	Light Controller L / LS	Light Controller LW / LSW	Light Controller S	Light Controller XS
				
	for integration into the distribution board	for integration into the distribution board – EnOcean wireless version	for independent operation	for independent operation
MultiSensors	 MultiSensors (motion and brightness)			
High Bay Sensors	 HB Sensors (motion) or brightness (constant light control)			
Extender				
Accessories	max. 6 buttons (mains voltage-compatible)	antenna (magnetic-base or screw-base); max. 6 buttons (mains voltage-compatible); EnOcean wireless modules (max. 16 pcs.)	button (mains voltage-compatible)	button (mains voltage-compatible)

Functions	Light Controller L	Light Controller LS	Light Controller LW	Light Controller LSW	Light Controller S	Light Controller XS
Control options	single and group	group	single and group	group	broadcast	broadcast
No. of groups	max. 16		max. 16		–	–
No. of operating devices (DALI-EBs, LiCS-Extender, HB sensors)	max. 64		max. 64		max. 64	max. 10
No. of MultiSensors	max. 36		max. 36		max. 36	max. 4
Motion detection (automatic and semi-automatic)	●		●		●	●
Constant light control	●		●		●	●
Scene settings	●	–	●	–	–	–
Push function (on/off, up and down)	●		●		●	●
Dimming (only up or only down)	●		●		–	–
ON/OFF function	●		●		●	●
Overriding central control	●		●		–	–
Stairwell function (timer)	●		●		–	–
With integrated timer clock	–	●	–	●	–	–
Discourage burglaries	–	●	–	●	–	–
System analysis software	●		●		–	–
Password protection	●		●		–	–
Minimising standby losses	●		●		–	–
Menu navigation in	German, English, French, Italian, Spanish		German, English, French, Italian, Spanish		–	–
Configuration using	rotary push key and screen		rotary push key and screen		dip switch	dip switch

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.
Please find further detailed information at www.vossloh-schwabe.com.

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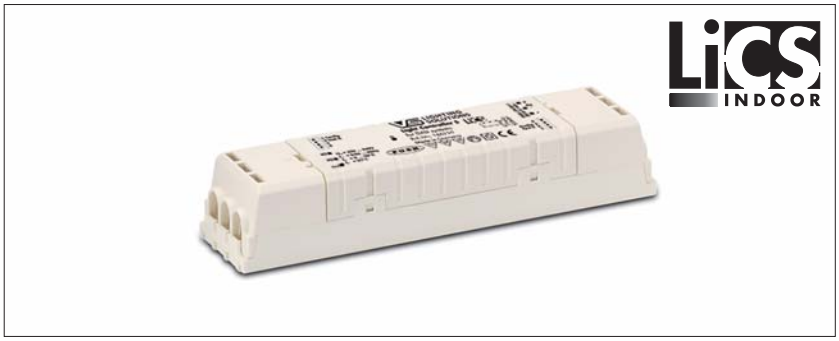
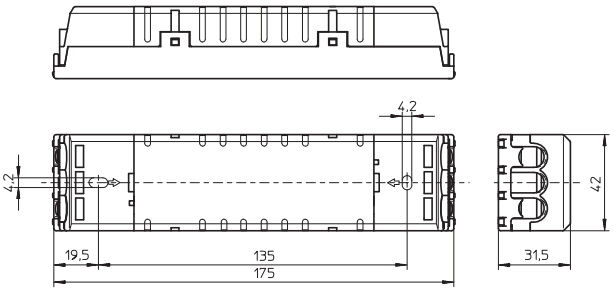
Light Controller S





For independent operation
These light control devices are suitable for independent operation (e.g. in false ceilings).

Technical notes
Configuration interface: dip switch (on the device)
Ambient temperature t_a: 0 to 50 °C
Max. casing temperature t_c: 65 °C
Screw terminals: 0.75–2.5 mm²
Degree of protection: IP20, Protection class: II
RFI-suppressed
The MultiSensors are connected directly to the DALI bus
No. of operating devices (DALI EBs, LiCS Extender, HB sensors): max. 64 pcs.
No. of MultiSensors: max. 36 pcs.

Connections
Mains connection: 220–240 V AC/DC, 0/50–60 Hz,
max. power consumption 6.5 W
1 DALI bus: max. current on DALI bus = 200 mA
(see the respective data sheet for current consumption of individual components)
As a standard DALI bus is not SELV-compliant, the DALI cable must be rated for mains voltage.
The DALI bus features reversible electronic overload
and short-circuit protection.
1 configurable push button input:
cables must be rated for mains voltage;
220–240 V AC/DC, 0/50–60 Hz

Functions
Automatic and semi-automatic motion detection, constant light control, push function (64 EBs synchronously), ON/OFF function, stairwell function (timer), control option (broadcast)

LightController S
Dimensions (LxWxH): 175x42x31.5 mm
Weight: 150 g
Ref. No.: 186210

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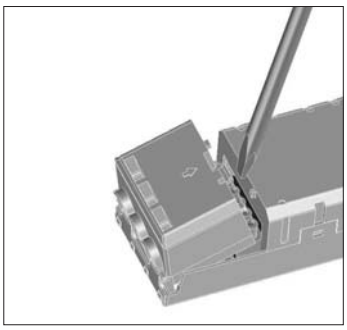
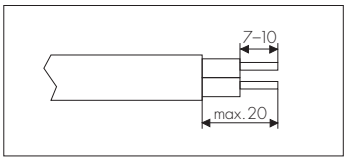
General safety information

- LiCS products may only be installed and commissioned by authorised and fully qualified staff.
- These instructions must be carefully read before installing and commissioning the system, as this is the only way to ensure safe and correct handling.
- Before any work is carried out on the equipment, it must be disconnected from the mains.
- All valid safety and accident-prevention regulations must be observed.
- The products should never be inexpertly opened as this poses lethal danger due to electrical shock. Repairs may only be undertaken by the manufacturer.
- On no account may the DALI control line be used to carry mains voltage or any other external voltage as this can destroy individual system components.

Light Controller S





Installation

- Independent installation, e.g. in false ceilings
- Easy and time-saving installation thanks to end caps that snap into place without needing tools.
- Clearance: min. 0.1 m to walls, ceilings, insulation and other electronic devices; min. 0.25 m to sources of heat (e.g. lamps)
- Surface: solid, must not let the controller sink into insulation material
- Fastening: using 4-mm screws

Installation instructions

- Conductor cross-section for all terminals: 0.75–2.5 mm²
- Cable preparation (see right)
- Screw terminals: max. tightening torque = 0.4 Nm
- A standard DALI bus only features basic insulation. All DALI cables must be rated for mains voltage.
- A max. of 64 DALI operating devices in aggregate can be connected as well as up to 36 MultiSensors, which in total must not exceed 200 mA. The exact number of components can be found in the manual.
- The power supply and the DALI line can be laid in a single cable provided the cable does not exceed a maximum length of 100 m, e.g. using NYM 5x1.5 mm². Please observe the maximum lengths of the DALI bus during installation:

	1,5 mm²	1 mm²	0,75 mm²	0,5 mm²
6,2 Ω max.	300 m	180 m	130 m	80 m

- Push button inputs: cables must be rated for mains power; maximum 100 m.

Additional information

- The outputs of several light controllers (S model) must not be connected with each other.
- All control gear that is connected to the output of the DALI Light Controller S is synchronously operated in "broadcast" mode; the DALI ballasts are not addressed.
- To ensure safe operation of the Light Controller (S model), the maximum casing temperature at the measuring point (t_c) must not be exceeded.
- Please refer to the manual at **www.vossloh-schwabe.com/en/home/products/light-management-systems-for-indoor-applications.html** for exact instructions on how to configure the system using the controller.

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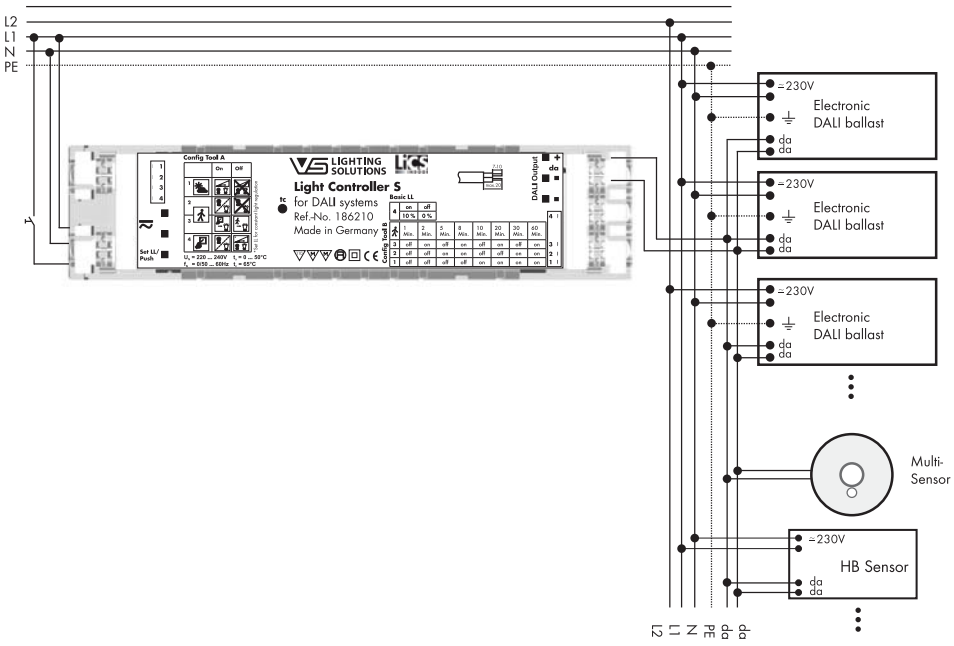
Circuit diagram of Light Controller S



Technical details Light Controller S

Light Controller	S
Ref. No.	186210
Supply voltage	220-240 V AC/DC, 0/50-60 Hz
Power consumption	6.5 W
Ambient temperature ta	0 to 50 °C
DALI output (da+-)	max. 200 mA current drain
No. of operating devices (DALI-EBs, LiCS-Extender, HB sensors)	max. 64 pcs. per Controller (expandable with the Extender)
No. of MultiSensors	max. 36 pcs.
RF input	–
Wireless module	–
No. of wireless modules	–
Relay (outputs a1, a2)	–
Push inputs	220-240 V AC/DC, 0/50-60 Hz
Degree of protection	IP20
Protection class	II
Weight	150 g
CE requirements	EMC in acc. with EN 61547, RFI in acc. with EN 55015, Safety in acc. with EN 61347-2-11

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Sales information – Light Controller S

Developed for use in indoor applications, the S Controller – in combination with the standard DALI protocol (DIN EN 62386) – enables control of dimmable electronic ballasts with a DALI interface. The individually configurable Controller performs all tasks associated with commissioning and managing a modern lighting system. Instead of needing additional equipment, such as a PC plus respective software, the Controller is configured using only the integrated dip switches. In addition, huge energy-saving potential can be harnessed by integrating motion, occupancy and brightness data loggers (sensors) powered via the DALI bus into the lighting system. The dip switches are also used to define various data logger (sensor) functions (motion detection and/or brightness control) as well as the different motion data logger (sensor) modes (automatic/semi-automatic). Furthermore, since the Controller is designed for independent operation, for instance in false ceilings, it is also fitted with a cord grip.

Text for invitations to tender – Light Controller S

Light controller type:	With a cord grip for self-sufficient installation with multi-sensors to deliver the DALI supply voltage for all DALI control gear devices that are connected to the communication interface within a permanently operating lighting system. The eight integrated position switches are used to configure the system. System parameters are saved without an additional prompt and can be changed at will without requiring additional devices. One individually configurable 230 V input is available as an operating element of the lighting system. 100 addresses can be allocated using the DALI bus system; 64 (max.) can be addressed in broadcast mode and a maximum of 36 can be used for data loggers (sensors). However, data loggers (sensors) do not feature a standardised protocol. All DALI control gear devices and data loggers (sensors) can be operated and altered with the position switch. Possible functions of the 230 V interface are manual dimming as well as call up or switching off of defined lighting values. All data loggers (sensors) integrated in the DALI bus are addressed using the position switch and deliver measured data with which to control DALI control gear devices that form part of the system. Adjustable delay of lighting system for movement detection: 1 min., 2 min., 5 min., 8 min., 10 min., 20 min., 30 min., 60 min., after which the lighting value is automatically lowered to 10% (DALI 170). Once the light controller has been disconnected from the supply voltage, all functions of the 230 V interface and/or of the data logger (sensor) are saved and will be performed without alteration when the light controller is next switched on. Parameters are set using only the position switch.
Light Controller:	DALI master acc. to EN 62386
Supply voltage:	230 V L, N (± 10%)
Communication interface:	DALI bus system (9.5–22.5 V) to 1 pair of terminals and additional terminal DALI +
Parameter setting:	Dip switches
Data logger:	MultiSensor type: Surface mounting / Luminaire installation / Ceiling installation MovementSensor type: Surface mounting for high installation heights for movement detection
Ambient temperature:	0°C...50°C
Dimensions (LxWxH):	126 x 90 x 68 mm
Casing material:	PC, white
Casing temperature:	max. 65 °C at t_c point
Short-circuit protection:	Yes
Power consumption:	6.5 W
Connection terminals:	Screw terminals, max. 2.5 mm²
Protection class:	II
Degree of protection:	IP20

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