

SBMB SUNSCREEN CONTROL UNIT

Quick Facts

- Sunscreen control for optimizing comfort and energy usage.
- Supports adjustable blinds.
- Integration with the web interface LINDINSPECT® for visualization with floor plans and other climate control in the building.
- Bluetooth® for configuration via the mobile app LINDINSIDE.

An active sunscreen does more than just block the sun from shining in your eyes. With Lindinvent's sunscreen system solution, you get an active installation for maximum comfort and minimal energy usage. Everything is visualized in the LINDINSPECT® web interface.

Function

The SBMb is used for controlling motors and connecting push buttons for internal or external sunscreens. The SBMb receives instructions and control signals from LINDINSHADE.

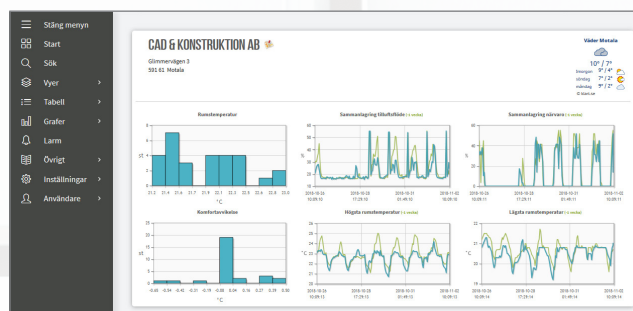
Control of individual sunscreens are based on outdoor climate and sun exposure conditions, as well as indoor conditions such as presence and temperature deviations.

Generall

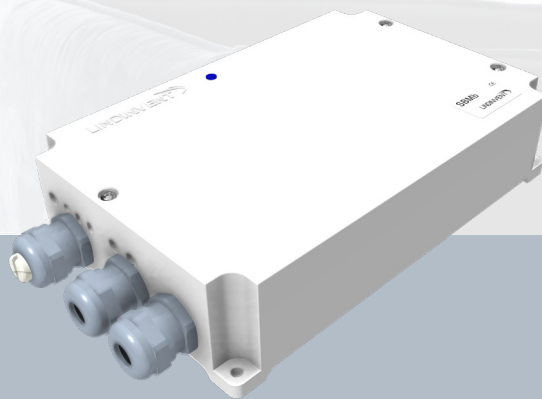
- Supports the control of roller blinds/screens, awnings, and adjustable blinds.
- Designed for individual control of two 230 VAC relay-controlled motors with wires for up, down, and neutral (and optionally protective earth). Upper and lower end positions should be set in the motor, either electrically or mechanically.
- Minimizes current spikes on the wiring network during relay start and stop of motors through built-in zero-crossing detection of 230VAC.
- Push buttons can be connected directly to the SBMb for manual sunscreen control. The SBMb also supports wire- and battery-free switches that communicate via EnOcean technology.
- The control unit has parameters that can be read and set via direct connection to the unit or via a network connection.
- Equipped with Bluetooth® for direct connection to the unit via the mobile app LINDINSIDE.
- A variant of SBMb can be ordered for the control of two 24 VDC motors.

LINDINSHADE

LINDINSHADE is the module in Lindinvent's comprehensive system software that intelligently controls sunscreens. Based on light conditions and outdoor climate data, the system interacts with other active climate controls. After optimization, LINDINSHADE controls the sunscreens by sending control signals to the SBMb. Sunscreens, like lighting control and other equipment for sustainable and attractive climate control, can be visualized and managed via floor plans in the web-based tool LINDINSPECT®.



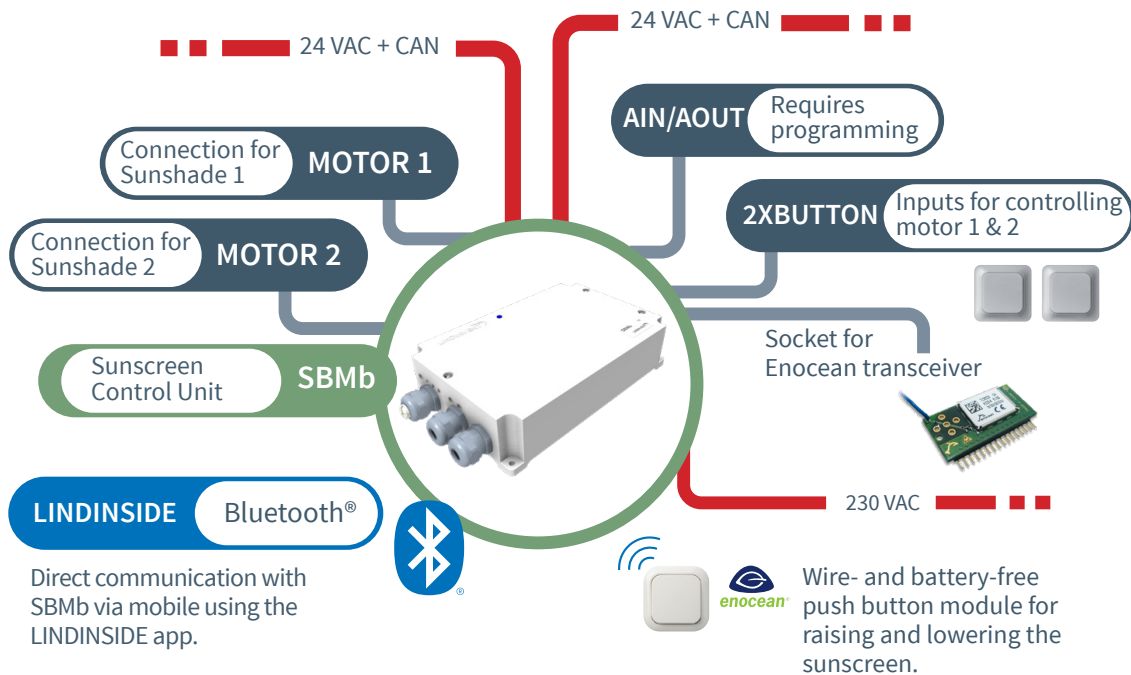
Details from the LINDINSPECT® Home Page
Here, the equipment in the building is visualized and managed.



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Connections to SBMb



Connection Diagram for SBMb

Connections

- 2 terminals for 24 VAC + CAN
- 1 terminal for incoming 230 VAC
- 1 relay-controlled output Motor 1 (maximum one motor, 250W)
- 1 relay-controlled output Motor 2 (maximum one motor, 250W)
- 1 terminal for general 0-10 VDC AIN/AUT (not used)
- 1 socket for mounting an EnOcean transceiver (accessory to support wireless push buttons)
- 2 inputs per motor for wired push buttons
- Bluetooth® for connection via mobile and the LINDINSIDE app

User Interface

Search details about specified interfaces via product name and product description.

- Server with LINDINSPECT® via Gateway NCE.
- Other superior systems via Gateway NCE and ModbusRTU or ModbusTCP.
- Direct login to the control unit via mobile phone with the LINDINSIDE app.

Technical Limitations

Number of motors: 2 motors in total, one motor per channel/motor connection.

Maximum power per motor: 250W

Motor output: 2 A fuse

Manual Control Buttons

The circuit board has three buttons (K1, K2, K3) for controlling the direction and wiring order for UP and DOWN on the terminal for motor connections to the circuit board. The buttons can also be used when setting the end position switches on each sunscreen. During the initial power-on of the circuit board, the travel time of the connected sunscreen is calculated and registered.

24 VDC motor control

SBMb can be ordered in a variant with incoming 24 VDC (24 VDC adapter included)

Number of motors: 2 motors in total.

One motor per channel/motor connection.

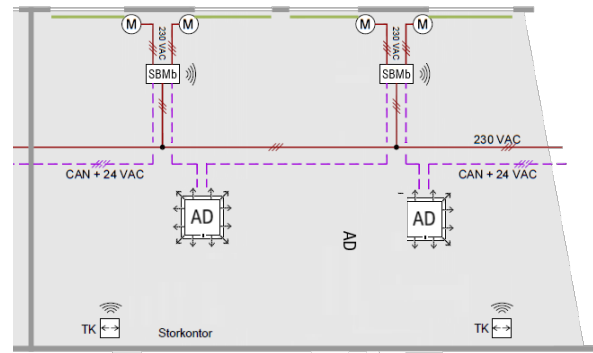
Max power per motor: 25W

Common: 2 A fuse

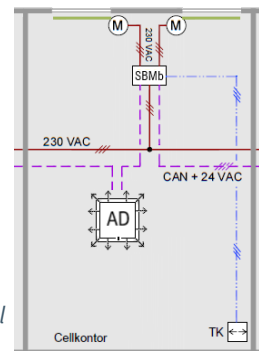
Example of Operation

SBMb in office landscapes and individual offices.

- SBMb is powered via 24 VAC.
- SBMb is connected to the CAN network via Lindinvent's shielded four-wire cable for 24 VAC and CAN communication.
- Active supply air devices (AD) with presence and room temperature sensors are connected to the same CAN network (CAN loop).
- The position of the sunscreen is calculated by the LINDINSHADE module, considering outdoor conditions (e.g., sunlight and temperature) and indoor conditions (e.g., presence and temperature deviation).
- Up to 2 motor-connected sunscreens (M) can be connected to one SBMb. Sunscreens are assigned to sun zones during commissioning via settings in LINDINSHADE. Settings allow whole facades or groups of motors to be controlled in parallel.
- Manual control is possible via wire- and battery-free push buttons (TK).
The sunscreens can also be controlled manually Up/Down via the LINDINSPECT® web interface.



SBMb in Office Landscapes



SBMb in individual offices

Example of Boundary Definitions

Below are examples of how boundary definitions between the Electrical Contractor (EE), Sunscreen Contractor (SAE), and Ventilation Contractor (VE) are typically divided. Lindinvent installations are usually part of the ventilation contract but can also be performed as a separate contract. The sunscreen contract is usually a subcontract to the building contract.

Responsibility Distribution Contractors

EE: Performs self-control of the installation when power is supplied for the first time by activating predefined self-control sequences in the SBMb.

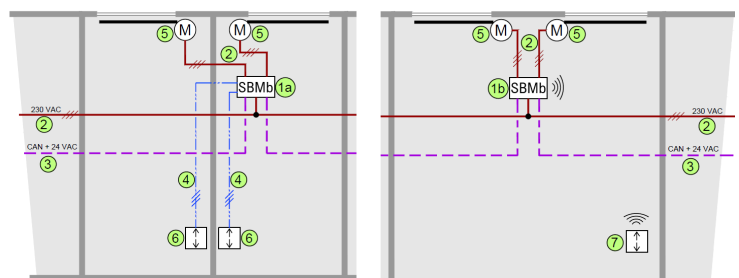
SAE: Performs self-control and setting of end position switches on motors.

VE: Sets Node-ID on control units and programs sequences and other system settings for sunscreen functions.

Control sequences and settings are activated via mobile and the LINDINSIDE app. Test and basic settings of motors can also be performed via buttons on the circuit board in SBMb.

Items	Delivery	Installation	Connection
1a. Control Box SBMb, wired switches	VE	VE	VE/EE
1b. Control Box SBMb, wireless switches (EnOcean transceiver)	VE	VE	VE/EE
2. Cabling 230 VAC	EE	EE	EE
3. Cabling 24 VAC + CAN	VE	VE	VE
4. Cabling for switches	EE	EE	EE
5. Sunscreen motors	SAE	SAE	EE
6. Spring-return switches	EE	EE	EE
7. EnOcean switches	VE	EE	-

Example of Boundary Definitions Between Electrical Contractor (EE), Sunscreen Contractor (SAE), and Ventilation Contractor (VE)



Technical Specifications

General

Dimensions (mm): 225 x 130 x 45 (LxBxH)

Material: Polystyrene casing

Net Weight: 0,8 kg

Color: RAL 9003

IP-Class: Casing is IP53

Temperature Limits:

Operation: 10°C to 40°C; <85% RH

Storage: -20°C to 50°C; <90% RH

Utförande:

Pre-installed glands for motor cabling and 230 VAC.

Breakable openings for other cables ~4 & ~6 mm.

External mounting holes. Cover with LED-pipe for exposing RGB-LED indicating operating status.

Equipped with Bluetooth® for communication via the LINDINSIDE mobile app.

Motor control 1 & 2 [SBMb version B06]

Input: 230 VAC

2A fuse per motor.

Output Maximum Power: 250W per motor

Commissioning of motor/sunscreen:

Supports manual process via buttons on the circuit board or via the LINDINSIDE mobile app.

Motor control 1 & 2 [SBMb version B51]

Input: 24 VDC

2A fuse.

Output Maximum Power: 25W per motor

Commissioning of motor/sunscreen:

Supports manual process via buttons on the circuit board or via the LINDINSIDE mobile app.

Electrical System

Power Supply Voltage: 24 VAC

Power: Maximum 4.2 VA (Normally 1.0 VA)

CE-Marking: Complies with EMC and low voltage directives.

Supplementary Product Documentation

Documents are available at www.lindinvent.com

Documents	Kommentar
Installation Instructions	For wall or ceiling mounting, use the external screw holes in the casing. The casing can also be fitted with magnets on the underside if you want to mount the SBMb on a metal plate. See the external connection diagram for connections.
Commissioning Instructions	Handling of the LINDINSIDE mobile application with support for commissioning.
Maintenance Instructions	Considered maintenance-free.
External Connection Diagram	Shows how equipment is connected to SBMb.
Environmental Product Declaration	For evaluation by the Bygghälsöversynsgruppen in Sweden.
Modbus List	Most recent modbus list for SBMb.
AMA-text	Sunscreen (collective document for Lindinvent's sunscreen products), AMA code SGC.
Project Planning Instructions	Solar shading - The system solution with LINDINSHADE.



LUND | GÖTEBORG | STOCKHOLM | LINKÖPING | UMEÅ