

BOW-LUX

For daylight regulation applications

Supplied by smart-house

For ceiling mounting

Channel coding by BGP-COD-BAT

OPUS housing



INPUT SPECIFICATIONS

Signal input	Visible light	25 Lux measured by the sensor, depending on the reflection factor and the distance
Spectral range	330 – 720 nm	
	Infrared rejection filter	
Spectral peak	580 nm	
Viewing angle	26°	
Optical range	0 – 100 Lux	
	400 – 500 Lux at table height is approximately	
		Response time
		9 cycles
		≤ 1224 ms @ 128 channels

GENERAL SPECIFICATIONS

Power-on delay	≤ 1 s	Material	OPUS 66 housing 66 x 66 x 35 mm
Environment		Weight	60 g
Degree of protection	IP 20	Standards	IEC 60669, EN 55022/ EN 50081-1 and EN 55024/ EN 50082-1
Pollution degree	3 (IEC 60664)		
Operating temperature	0 to 50 °C (32 to 122°F)		
Storage temperature	-20 to 85°C (-4 to 185°F)		
Humidity (non condensing)	≤ 85%		

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Current consumption	≤ 4 mA

TYPE SELECTION

Supply	Color	Ordering no.
By smart-house	White	BOW-LUX

MODE OF OPERATION

Coding

With the BGP-COD-BAT programming unit, each channel can be assigned any address between A1 and P8 via the programming connection on the PCB. For connection of BGP-COD-BAT to a module, the cable GAP-TPH-CAB must be used. The allocation of the channels is as follows:

Channel	Default address	Description
1	A7	Sync. input for light level data
2	A2	Light level output

The coding of the sensor can be carried out without smart-house signal. It is retained permanently, but may be overwritten at any time.

Functions and programming

For transmission of light levels from the light sensors, channel 2 (A2) is used as output for serial data. Channel 1 (A7) is also used for transmitting data. The channel is used as an input for synchronizing the serial data. In the configuration software for the Controller, the channel must be selected as a "Daylight sync." channel. The Controller will then automatically generate the sync. signal used for the controller and the light sensor. Only one channel in the smart-house system needs to be configured as sync. channel, independently of the number of light controllers and light sensors. All sync. channels of the modules just have to be configured to the same channel selected in the Controller

Mounting

The sensor must be mounted in the ceiling and directed towards the floor. It is important to place the sensor where it will not be hit by any direct sunlight during the day. It is also important that the sensor is placed correctly in the room. Since it can be difficult to find the ideal place the first time, it may be necessary to change the placement of the sensor if the regulation during the day is not optimum. As a starting point, the sensor should be placed in the area, where the sunlight contributes least to the total light in the room. This means that in most cases it will be recommended to place the sensor at the back of the room in relation to the windows.

It is advantageous to split up a room in several light groups: one area (light group) close to the windows is regulated by a sensor placed within this area, while an area away from the windows is regulated by its own sensor. In this area, a larger amount of lighting will usually be needed to maintain a homogeneous light level in the room.

The sensors must be placed so that they have a free view. This means that no large objects, like big flowers, shelves etc. must be placed under the sensors. In addition, it is important that no kind of up-light is placed near the sensor, or that the area around the sensor is not lit up with for example table lamps, which are not connected to the Daylight controller.