

Light-sensitive Controller for DIN Rail Mounting

Functional principle

The light-sensitive controller with integrated timer is designed to dim and switch illuminated advertising signs depending on the ambient daylight level.

This helps to reduce the energy consumption and extend the lifetime of the installation.

At dusk, the controller switches the sign on when a specific minimum ambient brightness level (lux value) is reached. With increasing darkness, the brightness of the sign is reduced.

In the morning, when the ambient light level rises, the brightness of the sign is increased until the sign is finally switched off when a specific ambient brightness level is reached (optionally, the sign can be programmed to remain switched on).

Controller

The controller is designed for DIN rail mounting and features connecting terminals for the operating voltage, sensor cables and control cables. The controller settings can be changed via four push-buttons on the housing.

Light sensor

The light sensor is a small electronic component (see picture on the right), which is sensitive to natural and artificial light. The sensor is hermetically sealed in a plastic housing and provided with a 2 m four-core connecting cable.

Operational behaviour

The controller supplies an output voltage of 0–10 V to the terminals 1 to 4. This voltage can be used to dim electronic converters.

The magnitude of the voltage depends on:

- the ambient light level
- the controller settings

Independent of the light sensor, the controller can also be used as a permanent dimmer.

Installation and positioning

The controller can be installed in converter boxes, converter cabinets or electrical distribution boards.

The cable length between the controller and the light sensor must not exceed 100 m when using a shielded network cable.

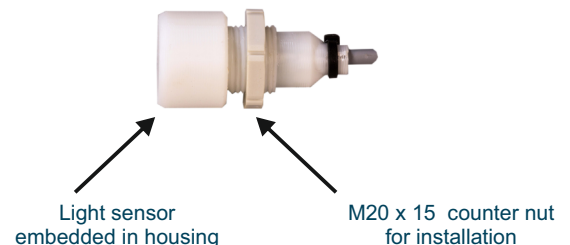
Installing the light sensor

The light sensor must be installed in such a way that direct exposure to a light source is avoided and an unobstructed view towards the sky is ensured.

Controller



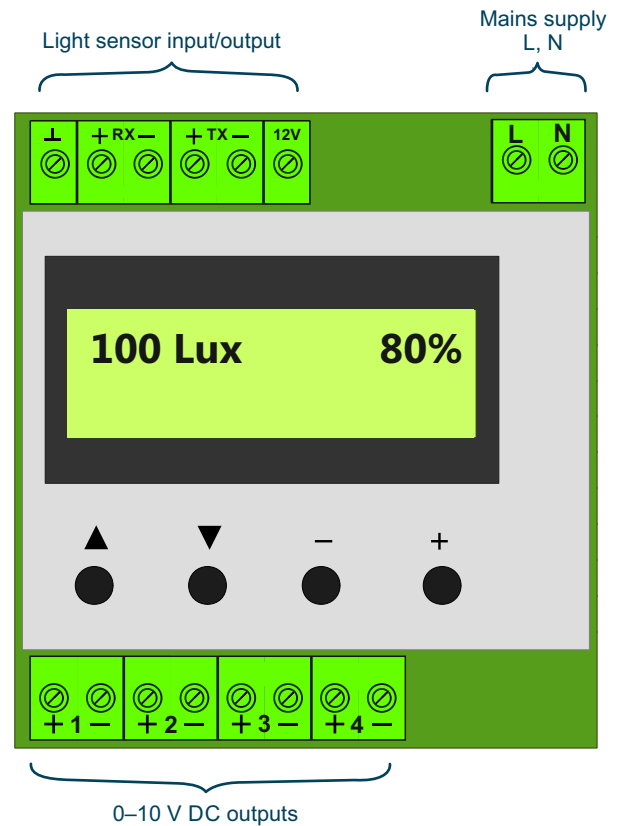
Light sensor



Light-sensitive Controller for DIN Rail Mounting

General data:	
Degree of protection	IP20
Protection class	II
Conformity	CE
Operating temperature	-25 °C to +65 °C
Article number	5 1201 130
Electrical data:	
Input voltage	180–230 V (+/- 10%) 50/60 Hz
Current consumption	max. 0.05 A
Output voltage 1–4	0–10 V DC
Output current 1–4	max. 35 mA (max. 50 converters)
Light sensor cable length	max. 100 m
Light sensor measuring range	1–600 lx
Input protection fuse	yes
Galvanic isolation	yes
Short-circuit protection	yes
Mechanical data:	
Weight	240 g
Housing material	polycarbonate
Fire protection class	UL94-V0
Size (L x W x H)	71 x 90 x 58 mm
Housing colour	grey

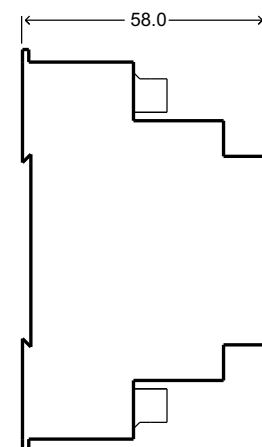
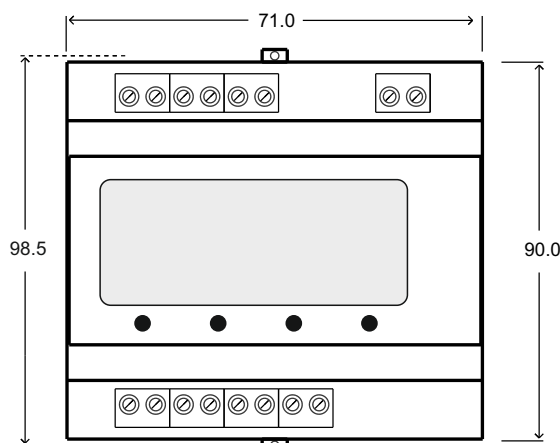
All values refer to an ambient temperature of +25 °C.



Housing dimensions:

Article no. 5 1201 130

Distance between mounting holes in DIN rail clip for wall mounting

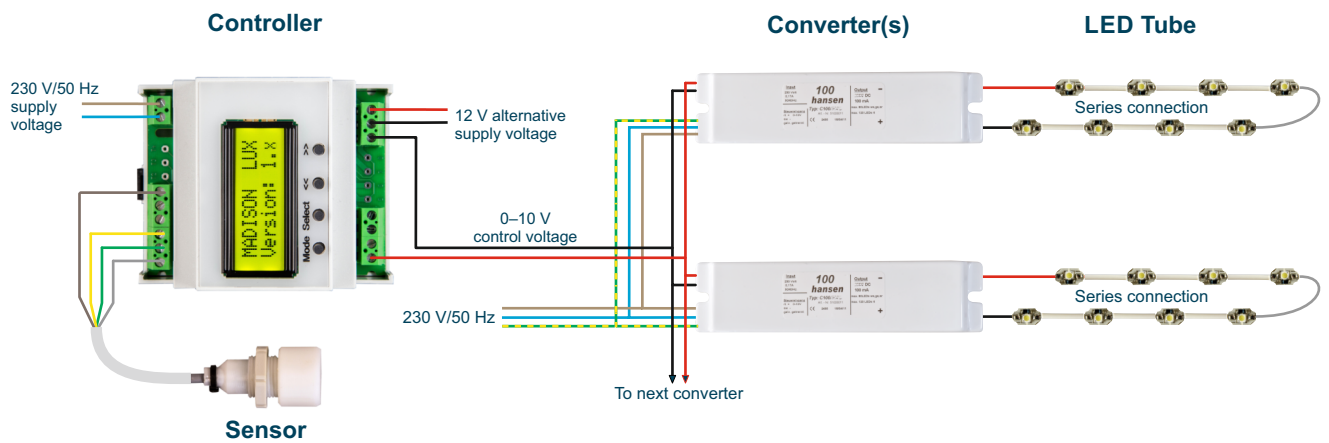


Housing colour: grey
All dimensions in millimetres

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Connection scheme for LEDs in series connection



Connection scheme for LEDs in parallel connection

