

GAMMA

Brightness Controllers UP 255/11 and AP 255/12

Description

The Brightness Controllers UP 255/11 and AP 255/12 are used for measurement and control of workplace and room lighting. The control can be set to either On/Off brightness control for switchable luminaires or continuous constant light level control for switchable and dimmable luminaires. Brightness Controller UP 255/11 is designed for flush mounting, and Brightness Controller AP 255/12 is designed for surface mounting. Both controllers have an integrated bus coupling unit with bus connection and power through a Bus Terminal block.

Each controller includes two white optical fiber rods (one with a flat light-sensitive surface and one with an oblique [30°] light-sensitive surface). One of the optical fiber rods is plugged in during installation. The optical fiber rod with the flat light-sensitive surface is used for most installations. If the direction of the light-collection cone needs to be shifted, the optical fiber rod with the oblique (30°) light-sensitive surface is used. See Figures 1 and 2.



The brightness sensor, the IR receiver and the red, blinking commissioning LED are underneath the optical fiber rod. The IR receiver brightness measurement is calibrated by using an IR remote control or through ETS (Engineering Tool Software).

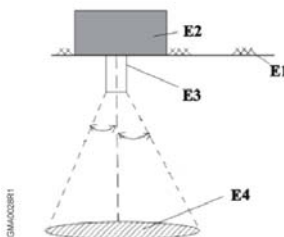


Figure 1. Collection Cone When Using the Optical Fiber Rod with a Flat Surface.

- E1 Ceiling
- E2 Controller Housing

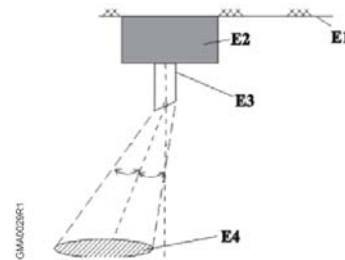


Figure 2. Collection Cone When Using the Optical Fiber Rod with an Oblique Surface.

- E3 Optical Fiber Rod
- E4 Measuring Surface (Work surface)

Application Programs

25 S1 Brightness Controller 909601

The following functions may be selected in ETS:

- Type of control (On only, Off only, On/Off or constant light level)
- When constant light level control is selected, the number of additional (slave) groups of luminaires which can be dimmed to different values
- If the measured brightness value is transmitted at a time interval or only after a change of value

- If the switching and dimming commands are transmitted at a time interval,
- If the setpoint value for brightness control is set using a parameter or a communication object,
- Controller behavior after a power loss.

The setpoint value calibration to the currently measured brightness value can be triggered through a special communication object.

Brightness control may be temporarily deactivated to permanently set the light level brighter or darker.

Specifications

Power Supply	Bus voltage: 21 to 30 Vdc (Class 2) provided through the bus line Bus current: Maximum 15 mA
Measuring Range	0 to 2000 Lux (with a reflection degree from the working surface of about 30%)
Control Elements	One mode button: for toggling between normal operating mode and addressing mode.
Display Elements	One red LED (beneath the optical fiber rod): for displaying normal operating mode (OFF) and addressing mode (ON), and for use during commissioning or user adjustment through an IR remote control.
Connections	Bus line: Bus terminal (red–black): 20 to 18 AWG solid copper wire (Ø 0.6 to 0.8 mm single core). Strip approximately 3/16" (5 mm) of insulation.
Physical Specifications	Brightness Controller UP 255/11 Housing and cover: Plastic Dimensions without cover (L x W x H): 1.97" x 1.38" x 0.55" (50 mm x 35 mm x 14 mm) Weight: Approximately 1.06 oz (30 g) • Installation: in a junction box that complies with DIN 49073–GB-T-M1E1 (02/90), Ø 2.36" (60 mm), depth 1.57" (40 mm). May also be attached directly to the mounting surface with screws. Brightness Controller AP 255/12 Housing: Plastic Dimensions: Ø 2.95" (75 mm), height 1.02" (26 mm) Weight: Approximately 1.76 oz (50 g) Installation: Surface mounting
Electromagnetic Compatibility	Complies with EN 50090-2-2.
Environmental Conditions	Ambient operating temperature: 23°F to 113°F (-5°C to 45°C) Storage temperature: -13°F to 158°F (-25°C to 70°C) Relative humidity (non-condensing): 5% to 93%
Certification	KNX/EIB certificate
CE marking	Complies with the EMC regulations (residential and commercial/industrial buildings), and low voltage regulations

Ordering Information

Part Number	Description
5WG12554AB11	Brightness Controller, Flush-mount
5WG12554AB12	Brightness Controller, Surface-mount

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