GAMMA

Dual Sensor for Brightness and Temperature AP 254/02

Description

The Dual Sensor AP 254/02 sends ambient light level and outdoor temperature values to the bus.

The sensor is designed for use in the following applications:

- Multi-staged lighting controls

- Temperature controls. For example, control of electric heat for frost protection

- Awning/blind/shutter controls

- Systems with visualization of light level and outdoor temperature

The device offers four universal channels (A, B, D, E), and one solar protection channel (C), which evaluate the light level and temperature based on their configured function.

Each universal channel provides the following threshold switches:

- Light level only

- Temperature only

- Light level and temperature combined

The threshold switches control switching, dimming, and solar protection actuators based on ambient light level and/or temperature.

Depending on whether or not the threshold condition is met, a corresponding telegram is sent to the bus through the associated channel. If required, a second object can also be activated to send a second telegram.

Each universal channel can be deactivated by an associated blocking object. A brightness threshold may be set for each channel.

The solar protection channel is used for automatic control of solar protection equipment. The automatic control can be started and stopped by an object, such as sun control, or by a dusk/dawn ambient light level threshold. Up to three light level thresholds control the height of the blinds and the angle of the slats. The light level thresholds may be set by the user during runtime. The solar protection channel can be deactivated by an associated blocking object.

Application Program

21 S2 Brightness and Temperature 909712

- Send temperature value/brightness value cyclically and/or on change of value.

- Use separate settings for each threshold.

- Control up to four shading systems based on combined temperature and light level values.

- Automatic solar protection control based on dusk/dawn threshold and up to three additional brightness thresholds.

- Use the current light level to set any of the brightness thresholds.

Specifications

Power Supply	Bus voltage: 21 to 30 Vdc (Class 2) provided through the bus line
	Power consumption: Maximum 150 mW
Measurement Range	• Light level: 1 to 100 000 Lux ± 5 Lux resp. ± 20%
	• Temperature: -22°F to 140°F (-30°C to 60°C) ± 1 Grad resp. ± 5%
	The higher value of tolerance is applicable.
Aperture	Horizontal: +/- 60°
	Vertical: –35° to 66.5°
Control Elements	One mode button: for toggling between normal operating mode and addressing mode.
Display Elements	One red LED: for displaying normal operating mode (OFF) and addressing mode (ON).
Connections	Bus line: Bus Terminal (red-black): 20 to 18 AWG solid copper wire (Ø 0.6 to 0.8 mm single core).
Physical Specifications	Housing: plastic
	Dimensions: (H × W × D) 4.33" × 2.83" × 2.24" (110 × 72 × 57 mm)
	Weight: Approximately 5 oz. (145 g)
	Installation: Surface-mounted
Electromagnetic Compatibility	Complies with EN 50090-2-2.
Environmental Conditions	Ambient operating temperature: -13°F to 131°F (-25°C to 55°C)
	Storage temperature: -13°F to 158°F (-25°C to 70°C)
	Relative humidity (non-condensing): 5% to 93%
Certification	KNX/EIB, CE certificate
CE marking	Complies with the EMC regulations (residential and commercial/industrial buildings), and low voltage regulations

Ordering Information

Part Number	Description
5WG12543EY02	Light and Temperature Sensor, Indoor/Outdoor

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sbt_technical.editor.us.sbt@siemens.com