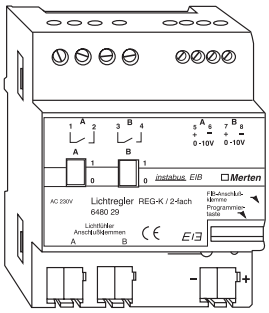
Lighting controller/control unit 0-10 V REG-K/2-gang



Article no.

648029

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1. Function

The lighting controller/control unit 0-10 V is a DIN rail mounted device for insertion in the distribution board. The connection to the EIB is established via a bus connecting terminal.

It is used for switching and dimming lamps with electronic ballasts with 0 to 10 V control inputs. It has two independent channels available.

The device operates passively, i.e. its 0...10 V output behaves like a controlled resistor while the controlled ballast supplies the control voltage.

In connection with the light sensor, the device can be used as a 2-gang lighting controller for constant lighting control in offices.

The device does not require an additional auxiliary voltage. A relay contact per channel is used for switching the lighting circuit on/off.

2. Installation

The lighting controller/control unit 0-10 V REG-K/2-gang is a DIN rail mounted device (REG) and is mounted on a DIN rail EN 50022-35. A data rail is not required. The bus connection is carried out via the bus connecting terminal supplied with the device. The cable cover is then placed over the bus connecting terminal to guarantee the safety clearance of the bus cable to the 230 V cables. A maximum of 4 core pairs can be connected to the bus connecting terminal.

3. Commissioning

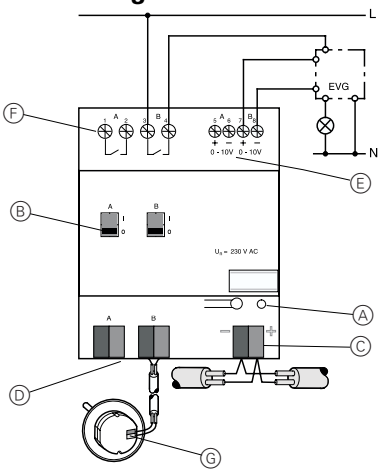
Caution:
Before programming, Service Release A of ETS2 V1.1 or higher must be installed on the commissioning PC. If this is not observed, the device cannot function and is no longer programmable.

4. Technical Data

Power supply from the bus:	24 V DC
Operating and display elements:	
Red LED and push-button:	Assignment of the physical address
2 switch position displays (also used for manual operation):	ON/OFF
Inputs	
Signal input:	2, for light sensor, art. no. 663690

Effective control range:	typ. 200 ... 1200 lux
Outputs:	
Signal output:	2, passive 0 ... 10 V DC for ballast
Loading capacity:	< 30 mA
Cable length:	max. 100 m
Load circuit	
Switching voltage:	230 V AC
Switching capacity:	16 A/AC 1; 10 A/AC 3
Connections	
Signal 0 ... 10 V:	2 x 2 screw terminals
Relay contacts:	2 x 2 screw terminals
Wire range:	0.5 - 2.5 mm2 single-core 0.5 - 2.5 mm2 finely stranded
EIB:	1 bus connecting terminal red/black
Light sensor:	2 connecting terminals white/yellow
Type of protection:	IP 20, EN 60 529
Protection class:	II
Ambient temperature	
Operation:	-5° C to +45° C
Storage:	-25° C to +55° C
Transport:	-25° C to +70° C
Design:	DIN rail mounted REG-K
Housing, colour:	Plastic housing, grey
Installation:	on 35 mm mounting rail, DIN EN 50022
Dimensions:	90x72x64 mm (HxWxD)
Mounting depth/width:	68 mm/4 modules at 18 mm
Weight:	0.190 kg
Certification:	EIB-certified
CE mark:	in accordance with the EMC guideline and low voltage guideline

Circuit diagram



Ⓐ Programming LED, push-button
Ⓑ Switch position displays
Ⓒ Bus terminals
Ⓓ Light sensor connection
Ⓔ 0 ... 10 V signal for ballast
Ⓕ Load circuit
Ⓖ Light sensor

Hinweis:
When calculating and planning artificial lighting in rooms, the usage must take into account the technical requirements for office lighting DIN 5035 and the workplace guidelines 7/3, as well as further guidelines.
With his expert knowledge, the lighting technician ensures that the lighting meets these requirements.

5. Settings in the EIB Tool Software (ETS)

Selection in the product database

Manufacturer:	Merten	
Product family:	4.7	Control unit 1-10 V
Product type:	4.7.01	DIN rail mounted REG-K
Program name:	Dim Switch Control Limits 3260/1.0 Dim Switch Control 3261/2.1 Dim Switch Slave 3262/1.1	
Product name:	Lighting controller/control unit 0-10 V REG-K/2-gang	
Order number:	648029	

6. Application overview

The following applications can be selected:

Application	Vers.	Function
Dim Switch Control Limits 3260/1.0	1.0	Group addresses: Number = 18/Associations = 18, dynamic
		Function of the dimmer
		Status feedback via switch object
		Adjustable initial brightness
		Behaviour on bus voltage failure
		Make/break contact
		Function of constant lighting control
		Control can be disconnected
		Unique or common sensor
		Setpoint adjustment
		Control limit values
Dim Switch Control 3261/2.1	2.1	Group addresses: Number = 18/Associations = 18, dynamic
		Functions same as application "Dim Switch Control Limits 3260/1.0" but without control limit values
		Switches off if too bright
Dim Switch Slave 3262/1.1	1.1	Group addresses: Number = 30/Associations = 30, dynamic
		Status feedback via switch object
		Adjustable initial brightness
		Behaviour on bus voltage failure
		Make/break contact
		2xpreset per channel
		Slave function
		Control limit values