

RF-Controller ZG M

RF luminaire controller

Art. no. 96632785

Application

The RF-Controller ZG M is a wireless controller for monitoring and controlling outdoor lighting fixtures. It is designed for the standardized Zhaga interface, ensures a quick installation and works smoothly together with the different variants of the UrbaSens RF luminaire controller and the UrbaSens Gateway. Together they are building up a reliable, self-healing wireless mesh network suitable for outdoor luminaires located in different applications like "Roads and Streets", "Cityscape", "Carparks" and others. The remotely programmable step-less dim and switch on/off schedules are suitable for luminaires with LED technology as well as for classic light sources connected to a standard DALI driver.

When combined with a smart driver, the RF Controller ZG M delivers advanced information about component status, power usage and the power grid.

Furthermore, the controller provides the possibility for remote updating the installed firmware with the RF communication network without the need for technicians being onsite.

In case of a non reachable UrbaSens Gateway, the RF Controller ZG M works independently as a stand-alone Controller by using the settings stored in the device itself after commissioning. The integrated twilight sensor allows to switch on and off the connected luminaire if necessary.

Design notes

The device is designed for luminaires with a standardized ZHAGA socket on top (ZHAGA book 18). So it could be connected easily directly onsite or already in the factory.

Start up after power connection without commissioning. The powered Controller automatically starts communication with other reachable UrbaSens Controllers and Gateways. The default settings can be changed using UrbaSens CMS connected to the Gateway.

Through an integrated LSI pin it is possible to connect additional devices like switches, pushbuttons or sensors.

This component is also possible to order in a package with 12 pieces (96632787).



Functional description

This controller sends data and receives instructions from the Gateway via radio frequency signals. Current status, including malfunctions such as failed light sources, is reported over the radio frequency network to the Gateway and to the web where the details can be visualized using the UrbaSens CMS on a laptop, PC or other browser-based device.

The RF-Controller ZG M has a DALI output through which drivers (and the light sources connected to them) can be switched on or off and continuously dimmed.

The built-in clock ensures that programmed switching points are executed autonomously even if communications are interrupted. In addition to absolute switching times (using the 24-hour clock) it is also possible to set relative switching times (before/after sunrise/sunset).

Label/connections



Technical data

Supply	.
Nominal input voltage	24 V DC
Permitted input voltage	18 - 30 V DC
Current consumption	Max. 125 mA
Power dissipation	Approx. 1.5 W
Interfaces	.
DA+/DA- (DALI)	Max. 25 DALI loads in broadcast mode Max. 1 D4i DALI load for dedicated data transfer
LSI (Logical System Input)	0 - 30 V DC
LSI low level	0-6 V DC
LSI high level	7 - 30 V DC
Environmental conditions	.
Permissible ambient temperature	-30 - 60°C
Permissible relative humidity	10 - 90%, non-condensing
Storage	-40 - 60°C, 5 - 95% relative humidity, non-condensing
Housing	.
Material	Polycarbonate (PC), flame-retardant (UL94V0)
Dimensions	Ø84 x 51.5 mm
Weight	88 g
Port	Compatible with Zhaga Book 18
Protection class	Class II electrical
Degree of protection	Max. IP65 (depending on the luminaire)
Wireless communication	.
Network	2,4 GHz IEEE 802.15.4 self-organising, self-healing wireless mesh network
Transmitting power	Max. +9.5 dBm
Signal range	Max. 150 m
Integrated twilight sensor	.
Default setting	Luminaire switches on at 30 lx Luminaire switches off at 45 lx