



Smart lighting

Mira A2110F

Product sheet



Sustainer 

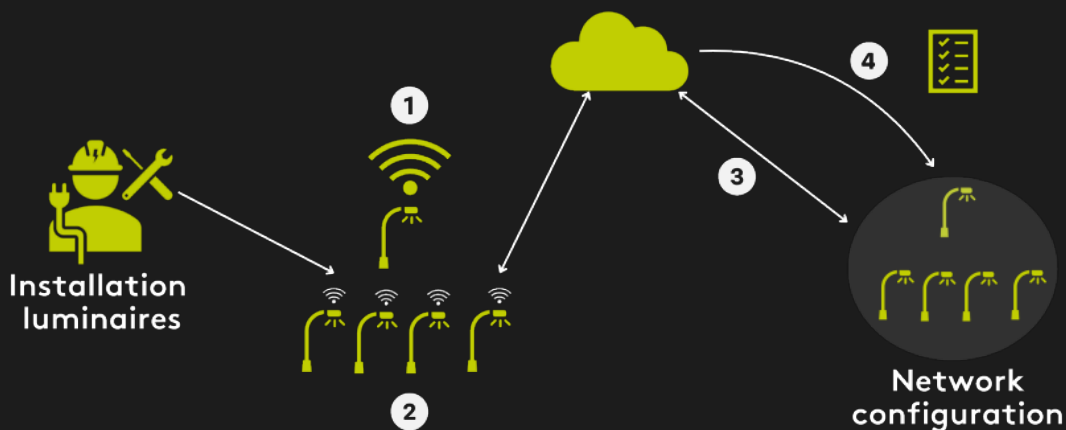
Sustainer Mira A2110F



Product description

The Mira A2110F Lighting Control Module is part of the Sustainer Lighting Control System.

The image below shows the system approach.



The Mira module will be installed inside the luminaire of the streetlight. The Mira A2110F module controls the light via the analog 1..10V interface.

All Miras are wirelessly connected with each other and form a wireless network that connects to a BackOffice by means of a Gateway. Via the BackOffice the system can be controlled and monitored.

See the datasheet of the Gateway and the BackOffice for more information about these items.

Features

New projects and retrofit

- Internal Antenna
- 868MHz RF Mesh Network
- Energy meter functionality
- Wired sensor interface (incl. power)
- Easy to install & configure

Applications

Public Lighting (E.g. Streetlight)

- Industry
- Petrol Stations
- Train/Bus Stations

Sustainer Mira A2110F

Technical data

| | Min. | Typ. | Max. | Unit |
|-------------------------------|---------|---------|---------|------|
| Mains In | | | | |
| Rated supply voltage | 220 | 230 | 240 | Vac |
| Input voltage | 198 | | 264 | Vac |
| Frequency | | 50 | | Hz |
| Current | | | 1.3 | A |
| Mains Out | | | | |
| Load power * | | | 250 | W |
| Load inrush energy | | | 1 | J |
| Load inrush current | | | 100 | A |
| Load inrush time | | | 1 | ms |
| Energy meter | | | | |
| Measurement range | 1 | | 250 | W |
| Resolution | | 0.1 | | W |
| Accuracy 1..10W | | ±0.5 | | W |
| Accuracy 10..250W | | ±5.0 | | % |
| 1..10V Interface | | | | |
| Control range | 1.0 | | 10.0 | Vdc |
| Voltage accuracy | -50 | | 50 | mV |
| Maximum current | | | 2.4 | mA |
| Sensor Input Interface | | | | |
| Logic high voltage | 5.0 | | 12.5 | Vdc |
| Logic low voltage | 0.0 | | 1.0 | Vdc |
| Voltage free high | 100k | | | Ohm |
| Voltage free low | | | 100 | Ohm |
| 12V Output | | | | |
| Output voltage | 10.5 | 12.0 | 12.5 | Vdc |
| Maximum current | | | 25 | mA |
| RF | | | | |
| Operating frequency | -30 ppm | 869.525 | +30 ppm | MHz |
| Output power | | 16 | | dBm |
| Sensitivity | | -110 | | dBm |
| RF range | | 126 | | dB |
| Power consumption | | | | |
| Module, Mains out on ** | | 0.90 | 1.0 | W |
| Module, Mains out off ** | | 1.50 | 1.70 | W |
| 12V Output efficiency | | 45 | | % |
| Environmental | | | | |
| Operating temperature | -25 | | +50 | °C |
| Storage temperature | -40 | | +85 | °C |
| IP rating | | IP20 | | |
| Impact rating | | IK06 | | |
| Impact energy IEC 62262 | | 1 | | J |
| Enclosure | | | | |
| Material | | PC/ABS | | |
| Weight | | 148 | | gram |

*) The system will report a lamp defect below 2W.

**) If the 12V Output is used, add the contribution of it using the "12V Output efficiency"-percentage (E.g. 12V Output @10mA = +0.27W).

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Technical data

| Complies with standards | | |
|-------------------------|--|---------------|
| ERM SRD | | EN 300220-2 |
| EMC | | EN 301489-1/3 |
| Safety | | EN61010-1 |
| RF range | | 126 |

Sensor input

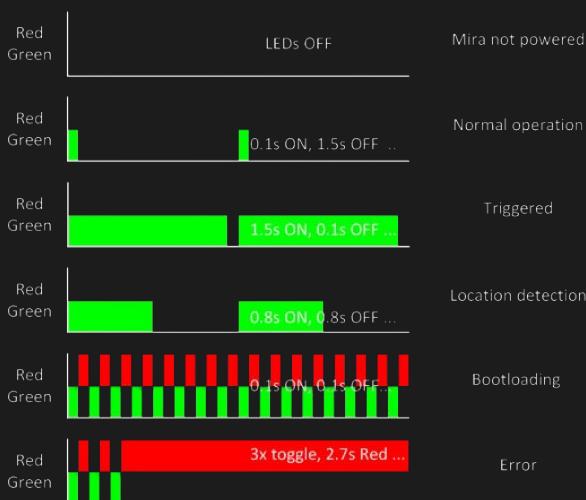
The module supports a wired sensor input. Voltage and voltage free sensor outputs can be connected to this interface. E.g. movement sensors (PIR or radar) can be included within the Sustainer Lighting Control System by using this input.

12V output

The 12V output interface from the Mira module can act as power supply for sensors. This means that no separate power supply module is necessary to power the sensor. The output is current protected and will be automatically recovered when the fault condition is removed.

Indicator functions

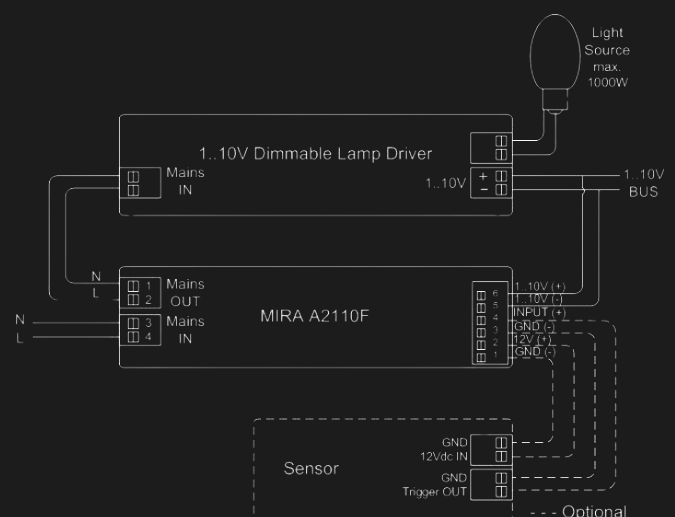
The LEDs are positioned next to pin 6 of the interface connector.



Wiring specifications

| | Min. | Typ. | Max. | Unit |
|---|------|----------------|------|-----------------|
| Mains In, Mains Out | | | | |
| Cable type | | Tri-rated | | |
| Cable wire cross section | 0.75 | | 2.50 | mm ² |
| | 18 | | 12 | AWG |
| Cable strip length | 10 | | 11 | mm |
| 1..10V Interface, Sensor Input, 12v Output | | | | |
| Cable type | | Solid/Stranded | | |
| Cable wire cross section | 0.2 | | 1.5 | mm ² |
| | 24 | | 16 | AWG |
| Cable strip length | 9 | | 10 | mm |
| Cable length | | | | |
| 1..10V, 12V Output | | | 1.0 | m |
| Input | | | 30 | m |

Wiring diagram



Sustainer Mira A2110F

Technical data

Installation instructions

Disconnect all power before installation and during servicing.

Do not open the MIRA enclosure; no user-serviceable parts inside.

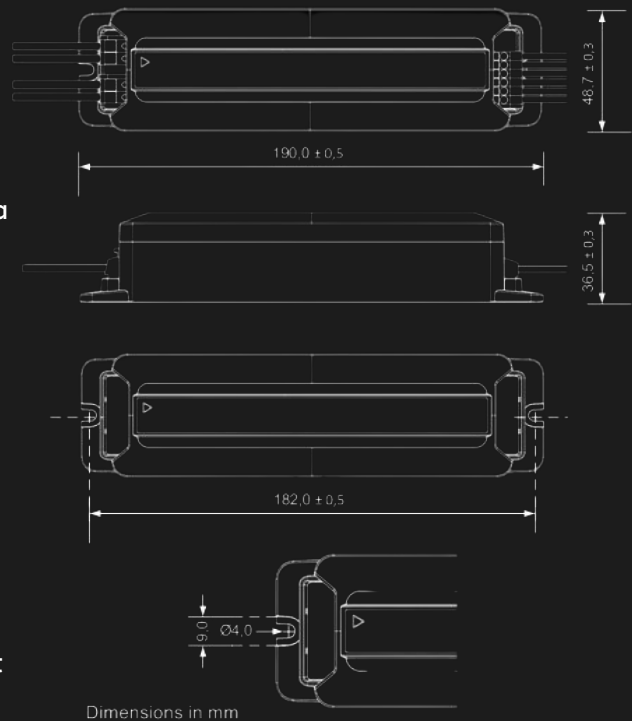
All installation and maintenance of line voltage equipment must be performed by a qualified electrician.

The MIRA must be installed in accordance with all local, state, and national electrical codes and requirements.

A switch or circuit-breaker must be included in the installation and has to be suitably located and easily accessible. It has to be marked as the disconnecting device for the Mira module(s). The recommended location for the switch or circuit-breaker is near the Mira module(s).

If the MIRA module is used in a manner not specified by Sustainer, the protection provided by the equipment may be impaired.

Dimensions



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