



Smart lighting

Mira D2110F

Product sheet



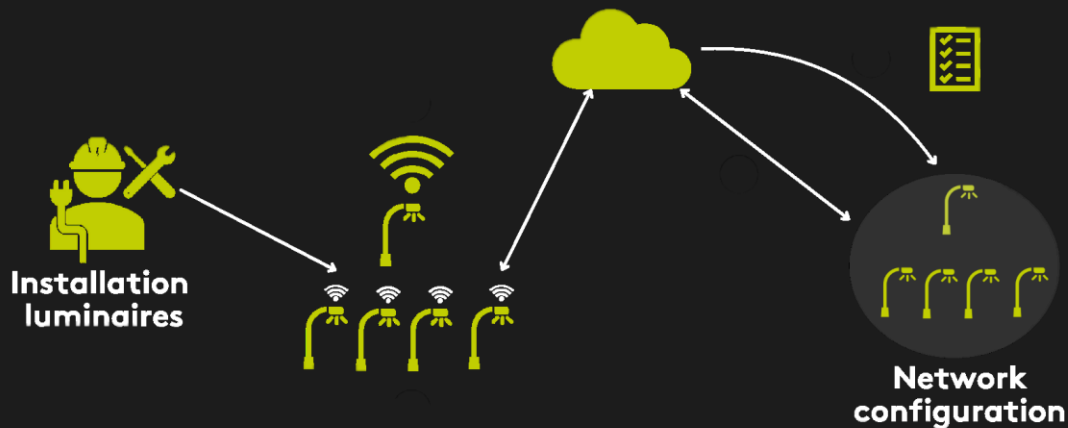
Sustainer Mira D2110F



Product description

The Mira D2110F 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 D2110F module controls the light via the DALI 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
- Works with 3rd party luminaires

Applications

- Public Lighting (E.g. Streetlight)
- Industry
- Petrol Stations
- Train/Bus Stations

Sustainder Mira D2110F

Technical data

	Min.	Typ.	Max.	Unit
Mains In				
Rated supply voltage	220	230	240	Vac
Input voltage	198		264	Vac
Frequency		50		Hz
Current			2.1	A
Mains Out				
Load power			450	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		%
DALI Interface				
Transmission rate	1080	1200	1320	baud
DALI voltage, logic high	10.0	11.0	11.5	Vdc
DALI voltage, logic low		0.0	0.5	Vdc
Trise	10	50	100	µs
Tfall	10	70	100	µs
Forward mode current		0.5	2.0	mA
Backward mode current		150	250	mA
Broadcast mode			1	devices
Individual Address mode	1		4	devices
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*		0.85	1.0	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

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

Sustainer Mira D2110F

Technical data

Enclosure			
	Material	PC/ABS	
	Weight	148	gram
Complies with standards			
	ERM SRD	EN 300220-2	
	EMC	EN 301489-1/3	
	Safety	EN61010-1	
	RF range	126	

DALI interface

The following DALI communication methods are supported:

- Broadcast mode, max. 1 device. Address is not used and therefore can be any.
- Individual Address mode, max. 4 devices, used addresses are 0x01, 0x02, 0x03 and 0x04. When this mode is used the connected devices must have the corresponding addresses.

Sensor input

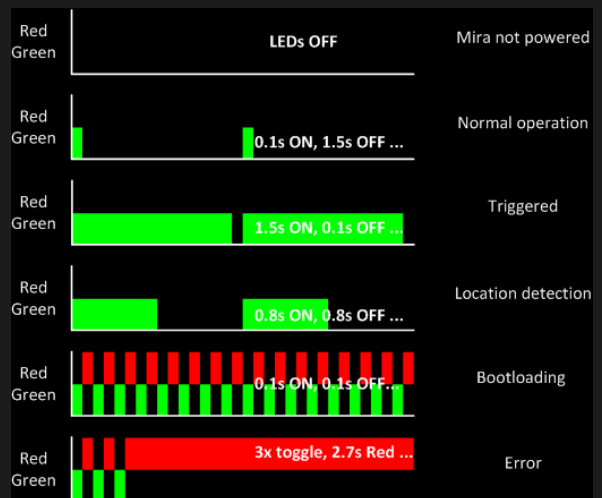
The module supports a wired sensor input. Voltage and voltage free sensor outputs can be connected to this interface. E.g. movement sensors (PIR or radar) can be included within the Sustainer Lighting Control System by using this input.

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.



Sustainer Mira D2110F

Installation

Installation instructions

Disconnect all power before installation and during servicing.

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

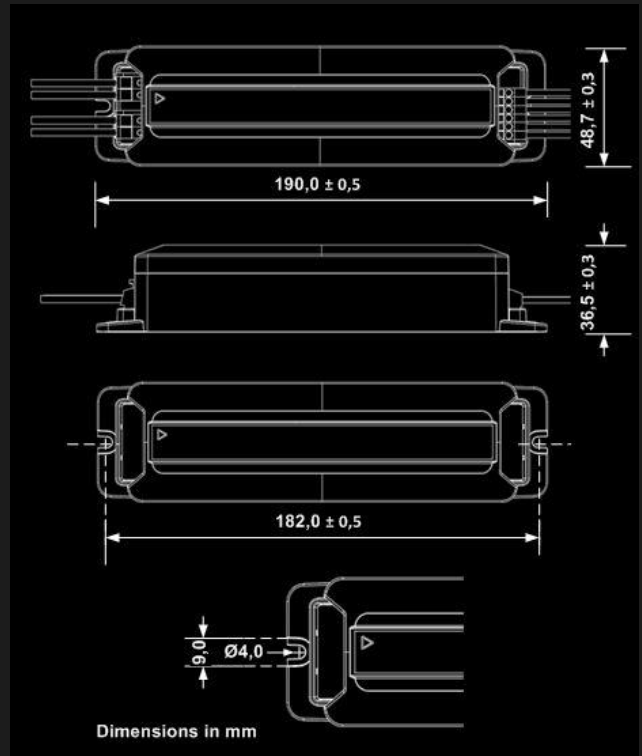
All installation and maintenance of line voltage equipment must be performed by a qualified electrician.

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

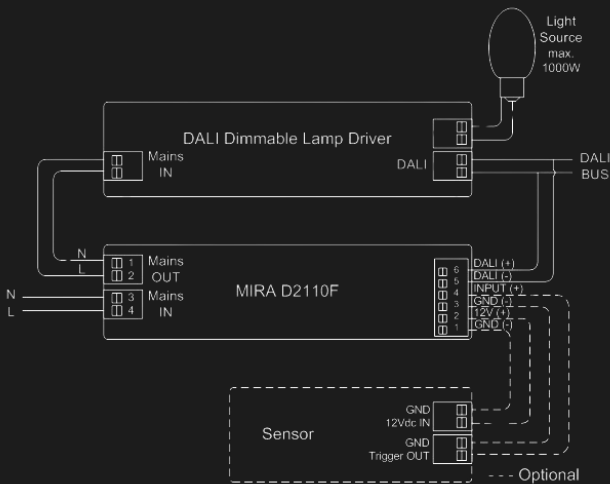
A switch or circuit-breaker must be included in the installation and has to be suitably located and easily accessible. It has to be marked as the disconnecting device for the Mira module(s). The recommended location for the switch or circuit-breaker is near the Mira module(s).

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

Dimensions



Wiring diagram



Wiring specifications

	Min.	Max.	Unit
Mains			
Cable type	Tri-rated		
Cable wire cross section	0.75	2.50	mm ²
Cable strip length	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
Cable strip length	24	16	AWG
Cable strip length	9	10	mm
Cable length 1..10V, 12V Output	1.0		m
Cable length Input	30		m

Contact

info@sustainer.com

+31 (0)85 047 11 75

sustainer.com

Emmen

Kapitein Grantstraat 9

7821 AP Emmen (NL)

Breda

Emmastraat 2A

4811 AG Breda (NL)

Grefrath

Weststraße 12

47929 Grefrath (DE)