TENTATIVE DATASHEET LIGHTING CONTROL MANAGEMENT SYSTEM

Control box CB2.0

Control box family

TYPICAL APPLICATION

The AAA-LUX LED floodlight luminaires are suitable to illuminate large areas like sports fields and industrial large terrains according the relevant norms. These luminaires are a retrofit replacement for the current Metal Halide floodlighting.
The WSxxxx, ALxxxx and JTxxxx family can be wirelessly controlled with the AAA-LUX Lighting Control Management System (LCMS) via the proprietary LEDxLINK. By using the LCMS in a correct way, user experience will be largely enhanced, and power savings will be optimized.
The LCMS family has a user interface based on Touchscreens or Switchboxes. External inputs will be connected to the system. These user input devices usually will communicate with the LED luminaires via the control box. This datasheet is related to the control box.

Typical applications for the control box family are in the sports field complexes and/or security rooms. The LEDxLINK wireless signal needs to be received by the LED luminaires. The functionality for the control of the luminaires will need to be defined by the (end) customer. The functionality will be implemented by AAA-LUX or its customers via the Lighting Installation Tool (LIT). The LIT will be described in detail in a separate document.
More information can be found on www.AAA-LUX-lighting.com

FEATURES AND BENEFITS

Main features and benefits are:

- Robust industry grade design
- Low power, fanless design
- LEDxLINK compliant
- Programmable for specific software for light scenes via the AAA-LUX Lighting Installation Tool

DESCRIPTION

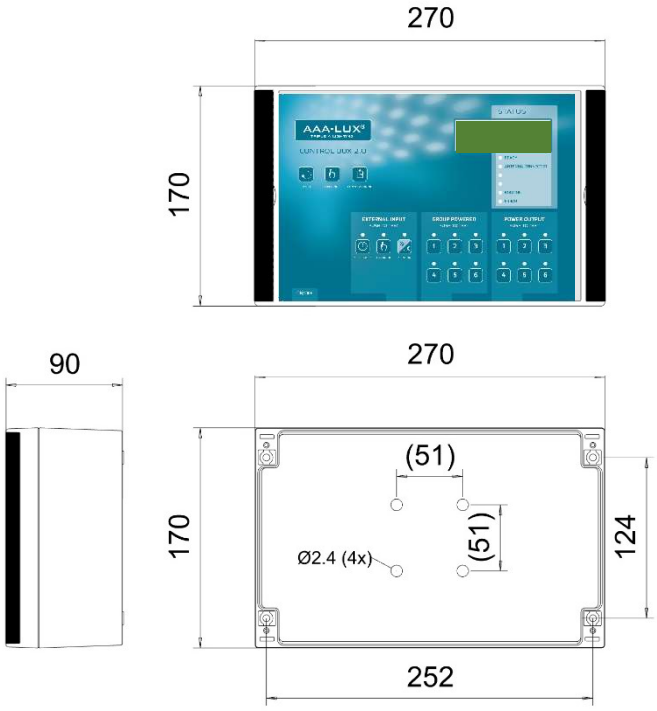
The user interface for the AAA-LUX Lighting Control Management System consists of Control Box, Switchboxes and Touchscreens. Typically the LED luminaires will be controlled from the Control Box with the proprietary LEDxLINK protocol. The control box receives its inputs from the Touchscreen and/or switchboxes. This input will be either via the LEDxLINK or via a wired Ethernet connection.

The control box is designed for indoor use in for example the sports complexes or industrial control rooms, and needs to be placed in a cabinet.
The control box has interfaces/connections for:
- 230VAC power supply
- Ethernet connection
- Sensor inputs and outputs
- Relais outputs for control of 400VAC contacters
- Antennabox for the proprietary AAA-LUX system

To setup a controlled network with the AAA-LUX control box, can be delivered with an AAA-LUX router to establish its own Ethernet network.

TECHNICAL DATA

Dimensions (in mm) 270 x 170 x 90mm, for reference only.



Back panel with mounting options

Mechanical – electrical data

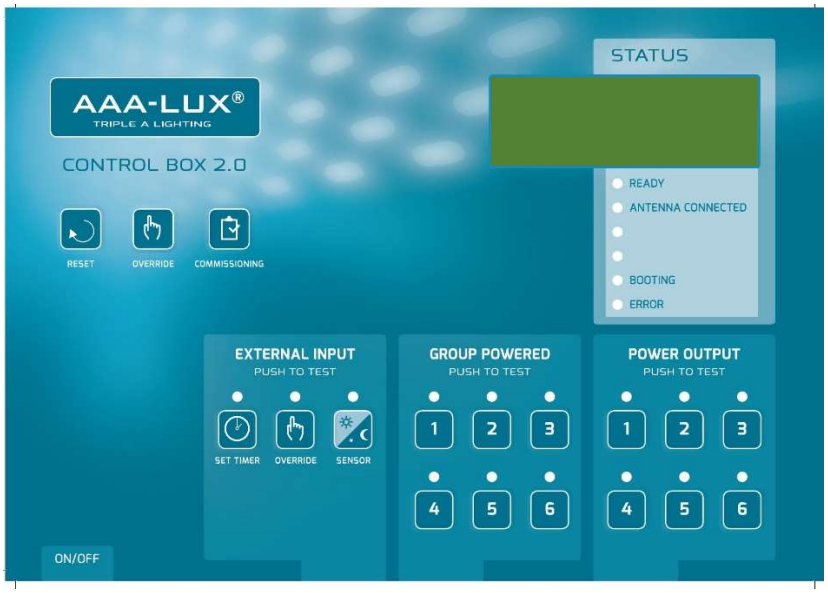
Specification	Min	Typ	Max	Unit
Power consumption			60	W
Voltage input		230		VAC
Frequency	50		60	Hz
Operating temperature	0		+40	°C
Weight		1.5		kg

Electrical data – inputs - outputs

Specification	Min	Typ/Descr.	Max	Unit
Relay outputs			24	VAC
Sensor Inputs		Potential free		
Ethernet		RJ45		
USB		Standard type A		

For detailed external connections see paragraph “External connections side panel”

Front panel description



Display and general buttons

Description	Function
Status display	Give status information
Reset	Restarts the software
Override*	Releases the system for usage e.g. testing
Commissioning	Loads TIF data from USB when pressed

External Inputs (for system release)

When one or more of the three contacts is closed the system is released for use. The LED will lit up when closed and contact can be closed manually to test the system.

Description	Function
Set Timer Normally used for allowing system usage at certain periods of the day	When contact is closed,e.g by a timer clock the system is released for use
Override * Normally used for allowing system usage in special circumstances	When contact is closed,e.g by a manual switch the system is released for use
Sensor Normally connected to a daylight sensor, releasing the system when its darkens	When contact is closed,e.g by a light sensor the system is released for use

* NOTE: When using the override please assure that the luminaires are not power during full sun load, preventing thermal damage.

Group Powered

When the contacts are closed of the corresponding group, this group is released for usage, **provided that the system is released**. Normally, this contact is closed with a relay that is powered when the group is powered, e.g. when a field is manually powered with the 400VAC, the corresponding relay is powered and closed the contact. The LED will lit up when closed and contact can be closed manually to test the system.

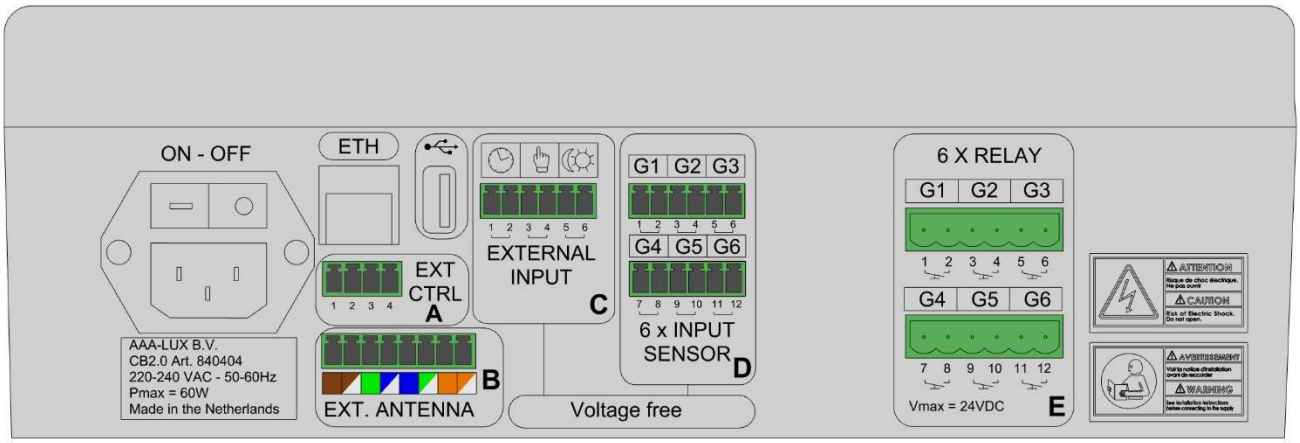
Power Output

When system gets user input, or a third party system gives input, that the user wants to use that group, the built-in relay contacts are closed of the corresponding group. This group is now powered, **provided that the system is released**.

Normally, the relay is closed and the input signal (max. 24VAC) will now be send to the electrical system to close the 400VAC relay to power the group. When not used for a certain time the relay will de-power the group and luminaires are disconnected from the grid.

This means that the system automatically powers and de-powers the luminaires, based on the system input and no further actions are needed.

External connections side panel



Description	Electrical	Function	Zone	Connector
Power input	220-250VAC	Power connection for control box	-	Euro C13
External control	N.A.	Future connection of external wired controls	A	
External antenna	CATx cable	Connection for external antenna box	B	
External inputs	Voltage free contact	Release for use of the system with a timer, external switch or daylight sensor	C	
Input sensor	Voltage free contact	Release for use of LIT group number	D	
Output relay	Max. 24VAC	Relay closes the connection normally used to send a signal to the electrical system to close a 400VAC contactor. This will put the voltage on the luminaires of that LIT based group	E	

ORDERING CODES

Typenumber	Description
CB2.0	Standard Control box, incl AAA-LUX antenna box and 20m CAT5e cable