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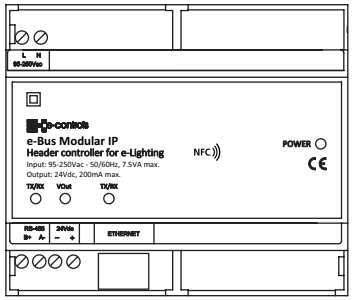
Instruction sheet

EN

e-Bus Modular IP

Header controller for e-Lighting Modular devices
Ordering number: BM.550000-001



INS1018526111030

e-Bus Modular is a controller for e-Lighting devices that has a communication port to monitor the inputs status and actuate remotely over the outputs of the devices connected to it. The device has an Ethernet port to connect to the structured wiring of the building to be able to remotely control the e-Lighting devices over the Modbus TCP protocol.

The device has a side connector called "Modular Bus" through which up to 3 e-Lighting devices of any input/output configuration can be connected. It also has several led indicators to signal the inputs and outputs status, and an NFC interface through which it is possible to configure several parameters of the device, like the IP address, using the EConfigurator APP for mobile phone.

Functional description

The device has a Modbus register map with all the registers necessary to configure, monitor and control the e-Lighting devices that are connected to the unit. The Modbus map of the device is divided in three parts: Configuration registers, input registers and output registers. Through these registers it is possible to configure the device, to know the state of the inputs and actuate over the outputs of the e-Lighting devices. The device can control up to 3 e-Lighting devices of any combination of inputs/outputs.

Device configuration

The device can be configured through the Modbus communication port accessing to the configuration registers, or through the wireless NFC interface and the EConfigurator APP. Configuration through the NFC interface can be done with the device plugged or unplugged, facilitating the maintenance tasks. If the applied configuration does not match the connected devices, the power led with light up in orange colour. An operating system in the device allows the possibility to update the device with new software versions through the ethernet port, using an application provided by E-Controls.
The device has a label with the purchase product reference, the serial number and the MAC IP address.

Installation instructions

The product is designed to be installed in a DIN EN 60715 cabinet. It must not be installed over shelves, behind curtains, over or near to heat sources or exposed to direct solar radiation.

Important:

- For a correct operating of the system it is necessary to install the device separating the very low voltage wires (inputs) from the mains wires (device supply and outputs) in the cabinet.
- Use shielded wire for the communication bus of the BMS system.
- Use the correct wires as specified in the installation drawing of the device.

Caution:

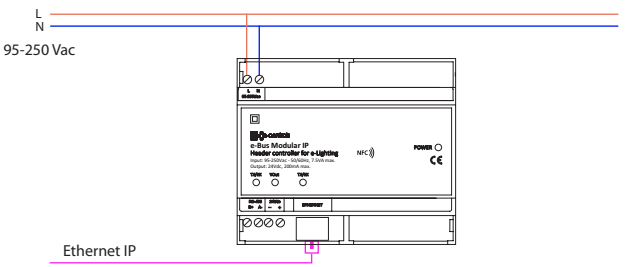
- Before installing or removing the device, make sure that there is no mains voltage present in the wiring to be connected or near the unit.
- Do not cut or roll up the wires to be connected to the device.
- Do not work on the wiring with wet hands.
- Do not open or drill through the device.
- Keep the device and the supply wires away from moisture and dust.
- Use a damp cloth to clean the device.

Installation steps:

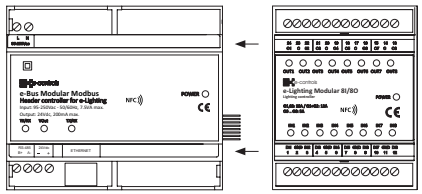
1. Disconnect the supply voltage of the cabinet.
2. Open the cabinet and install the device in the DIN rail placing the black clip at the bottom. Pull down the clip and press the device to insert it into the rail. Release the clip and check the device is correctly fitted.
3. Verify that all the wires are installed following the constructive mounting diagram provided.
4. Remove the side label to connect the e-Lighting devices to the unit.
5. Connect the power supply and verify the correct operating of the device.

Installation drawing

Install electrical protections and required cabling according to the standards of every country.



e-Bus Modular connection to e-Lighting Modular



Technical features

Supply power . . . . . 95-250Vac / 50-60 Hz
Maximum nominal power . . . . . 10 VA

Output supply connector
Voltage . . . . . 24 Vdc ± 5%
Maximum current. . . . . .200 mA
Protections . . . . . Against overcurrent

Communications
BMS Bus
Interface. . . . . Ethernet IEEE 802.3
Connector. RJ45
Communication speed. . . . . 10 / 100 Mbps
Communication protocol . . . . . Modbus TCP
Default IP address. 192.168.1.250
Default IP port 502
Field bus
Interface. RS-485
Terminals . . . . . A-, B+
Protocol . . . . . Modbus RTU
Speed . . . . . 1200..115200 Baud
Communication configuration 8E1, 8O1, 8N1, 8N2

Concector "Modular Bus"
e-Lighting Modular maximum devices connected 3

Wireless NFC interface
Standard . . . . . ISO/IEC 15693
Readin speed . . . . . Up to 53 Kbit/s
Data security . . . . . .64 bit passwords

LED indicators
Power LED
Device operating . . . . . .Green
Device unplugged . . . . . .Gray
Configuration error . . . . . .Orange
Device failure. . . . . Red
Inicialization . . . . . Red blinking
TCP/IP communication
Receiving data . . . . . TX/RX green
Sending data . . . . . TX/RX yellow
Link Ethernet . . . . . Yellow
Activity Ethernet. . . . . .Green

Mechanical features
Dimmensiones . . . . . 106 x 90,5 x 62 mm
Weight. . . . . 230 g
Type of installation . . . . . DIN 43 880
Colour . . . . . RAL 7035
Protection degree. . . . . IP 20

Temperature
Operating. . . . . 0ºC to +50ºC (32ºF to 104ºF)
Storage . . . . . -20ºC to +85ºC (-4ºF to +185ºF)

Humidity (no condensation)
Operating . . . . . 10% to 90% RH to 50ºC
Storage . . . . . 95% RH to 50ºC

Product family standards
Automatic electrical controls for household and similar use . . . . . EN 60730-1:2013

Conformity directives
CE Mark

Security
Standard . . . . . EN 60730-1:2013
IEC protection . . . . . Class II
Protection degree. IP20

EMC
Emissions . . . . . .EN 61000-6-3
Immunity . . . . . .EN 61000-6-1

Ordering numbers

e-Bus Modular IP, Header controller for e-Lighting Modular devices BM.550000-001

Related products

e-Lighting Modular 8I/8O, 8 digital inputs / 8 relay outputs module IO.008800-000
e-Lighting Modular 4O, 4 relay outputs module. IO.000400-000

The package of this product is considered as industrial packaging intended for professional use only.
The manufacturer is not responsible of the incorrect installation or use of the product.
Specifications are subject to change without notice.