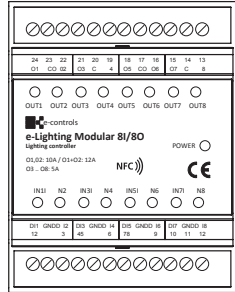


## Instruction sheet

### e-Lighting Modular

Inputs / outputs module for lighting control, blinds control, pulsecount and signal control in cabinets



INSTX18532XXX30

**e-Lighting Modular** is a module with digital inputs and relay type outputs with functions to monitor the state of contacts (switches), lighting control, curtains or blinds control, delay timers to switch off outputs and pulsecount inputs for water and energy monitoring. The device can be used also to monitor the state of signals in cabinets and actuate with its outputs over contactors to switch on and off different elements of an installation. The device has dry contact digital inputs and potential free relay outputs.

The device is connected to a **e-Room Modular** controller or to an **e-Bus Modular** that provide supply power and communication through the bus of the controller. Several input/output configurations are available depending on the model selected.

#### Main features

- Dry contact digital inputs to monitor potential free contacts.
- Inputs with shared ground every two inputs.
- Available configurations for every input: Contact type input, blinds control inputs, pulsecount input S0 type.
- Possibility to configure each input as NO or NC.
- Potential free relay outputs to control loads.
- Shared common terminal for every two output relays.
- Outputs 1 and 2 with biestable relay.
- Available configurations for every output: Switch on/off contact, blinds control.
- Possibility to configure each output as NO or NC and save its status in the event of a power failure (persistent).
- Side connector to connect several e-Lighting to one controller (read controller instruction sheets).
- Front panel with led indicators to signal inputs and outputs status.

#### Device configuration

The device is configured through the communication port of the e-Room Modular or the e-Bus Modular controller selected. Refer to the controller manual to read detailed information of the device configuration. If the communication used is Modbus, any changes in the configuration registers of the device, require a reset device to make the changes take effect.

#### 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, bus) 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:

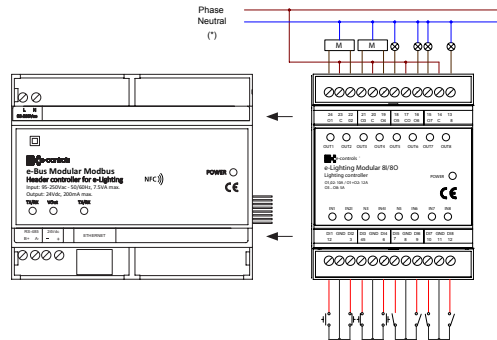
- Before installing or removing the device, make sure that there is no mains voltage present in the wiring to be connected or near the unit.
- Do not cut or roll up the wires to be connected to the device.
- Do not work on the wiring with wet hands.
- Do not open or drill through the device.
- Keep the 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. Insert the side connector provided, in the left handside female connector of the e-Lighting.
3. If more e-Lighting devices need to be connected, remove the right side label of the device.
4. Place the device on the right side of the e-Room Modular, or the e-Bus Modular or another e-Lighting device.
5. 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.
6. Verify that all the wires are installed following the constructive mounting diagram provided.
7. 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.



#### Device initialization

When power is applied to the controller, it takes 10 seconds to start up. During this time the biestable relays of outputs 1 and 2 stay in the same state as before the power failure. After this time the outputs will take the configured value.

#### Technical features

Supply	Through side connector "Modular Bus"
<b>Digital inputs (IN1 to IN8)</b>	
Type	Dry contact
Open circuit voltage	16 Vdc ± 5%
Shortcircuit current	0,9 mA
Maximum impedance with contact closed / Minimum impedance with contact open	< 2 KOhm / > 15 KOhm
Input impedance	> 25 KOhm
Pulsecount	Type S0
Input frequency	> 500 Hz
Sampling rate	1 ms.
Terminals	Common contact shared
<b>Outputs OUT1 and OUT2</b>	
Output type	Potential free biestable output
Steady state	Normally open (configurable)
Maximum operating voltage	> 250 Vac
Maximum current	10 A, resistive load
Contact type	80A, high inrush current
Maximum current OUT1+OUT2	12 A
<b>Outputs OUT3 to OUT8</b>	
Output type	Potential free relay output
Steady state	Normally open (configurable)
Maximum operating voltage	250 Vac / 30 Vdc
Maximum current	5 A, resistive load
<b>Wireless NFC interface</b>	
Standard	ISO/IEC 15693
Reading speed	Up to 53 Kbit/s
Data security	.64 bit passwords
<b>LED indicators</b>	
<b>Power</b>	
Device operating / Active	Green / Short blinking
Configuration error	Red, slow blinking
Modular Bus communication error	Red, fast blinking
Device failure	Solid red
<b>Inputs and Outputs</b>	
Activated	Green
Disabled	Grey
<b>Mechanical features</b>	
Dimensions	71 x 90,5 x 62 mm
Weight	200 g
Installation type	Carril DIN 43 880
Colour	RAL 7035
Protection degree	IP 20
<b>Temperature</b>	
Operating	0°C to +50°C (32°F to 104°F)
Storage	-20°C to +85°C (-4°F to +185°F)
<b>Humidity (no condensation)</b>	
Operating	10% to 90% RH to 50°C
Storage	95% RH to 50°C
<b>Product family standards</b>	
Automatic electrical controls for household and similar use	EN 60730-1:2013
<b>Conformity directives</b>	
CE Mark	
<b>Security</b>	
Standard	EN 60730-1:2013
IEC protection	Class III
Protection degree	IP20
<b>EMC</b>	
Emissions	EN 61000-6-3
Immunity	EN 61000-6-1

#### Ordering numbers

<b>e-Lighting Modular 4O</b> , Module 4 relay outputs	IO.000400-001
<b>e-Lighting Modular 8I/8O</b> , Module 8 digital inputs, 8 relay outputs	IO.008800-001

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.

