LOGIC MODULE EX-11
Lighting control with presence detection

Ord. number: 13161

Description

EX-11 is a logic module for controlling of one or two lighting groups with i.e. presence detector PD-2200. Module is used where the requirement is for the lighting to be switched on and off manually. If there is no one in the room, the lighting goes out automatically. Normal functioning for lighting is when light is switched on by pressing a button when light is needed.
When leaving the premises you can switch of the light by pressing the button again.
When someone leave the light on, it will automatically be switched of by the presence detector.

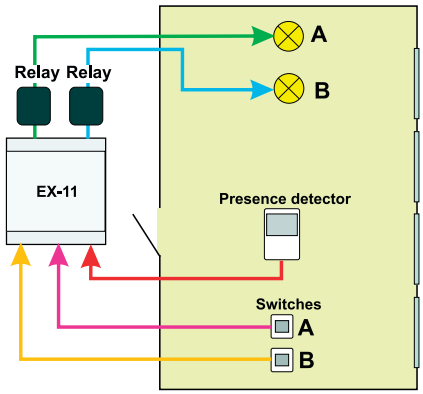
EX-11 can be used for two separate rooms.

A One premises with two lighting groups and manually switching.

I.e. lecture hall with main lighting and board lighting.

Group A and B are switched on manually by pressing a button.

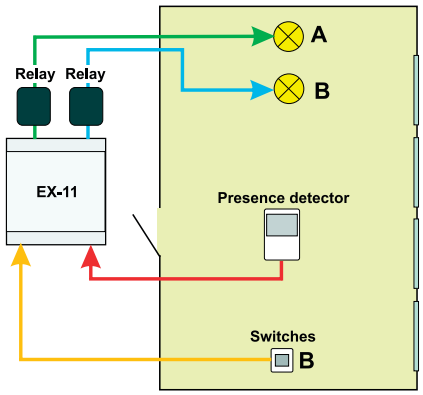
If light is left on, the presence detector will automatically switch it of.



One premises with two lighting groups and manually switching.

B. One premises with main light switched on manually and automatically switching of step and emergency lighting.

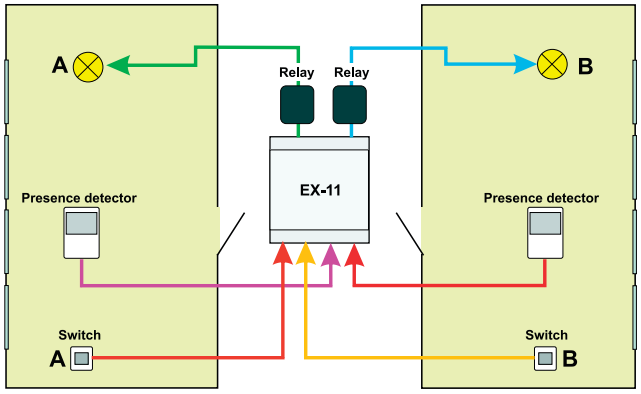
I.e. an assembly-hall or conference room.
Group A will be switched on and off automatically.
Group B will be switched on and off by a button.
If light is left on, the presence detector will automatically switch it of.



En lokal med manuell huvudbelysning och automatisk stegbelysning.

C. Two premises with manual switching groups in both of them (EV-11D)

I.e. two group-rooms or offices.
Group A and B will be switched on and off by a button.
If lights not switched of manually, presence detector will automatically switch of.



Två lokaler med manuell tändning.

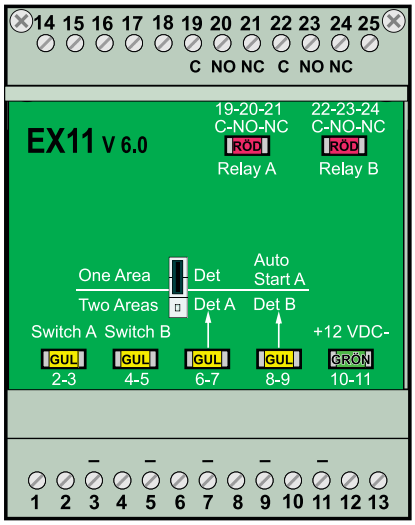
Memory

Memory function is active for 20 seconds after automatically switched of. If lighting is switched of due to lack of movements, so will just movement switch on the light again.
When lighting has been out for more than 20 seconds, the logic module will be blocked and new activation by pressing the button is necessary, to switch on the light again.

“Bought time”

“Bought time” function can be used when the detector is unable to see the entrance off premises.
By pressing the button, lighting will be switched on before presence detector has a possibility to detect presence.
This function is active in 20 seconds.

Inputs



Note position of jumper for either one or two premises!

Terminal 2 – 3:

Input for button to group A. NO pulse gives lighting ON/OFF.
When function “Bought time” is active, yellow LED will flash.
When button is pressed LED gives a steady light (input closed).

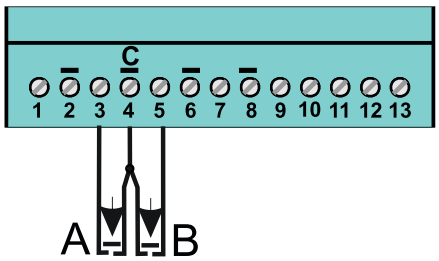
If button is only for switching light on, a 4.7 kΩ resistor shall be connected in series with button.

Terminal 4 – 5:

Input for button to group B. NO pulse gives lighting ON/OFF.
When function “Bought time” is active, yellow LED will flash.
When button is pressed LED gives a steady light (input closed).

If button is only for switching light on, a 4.7 kΩ resistor shall be connected in series with button.

When connecting pushbutton switches with a common negative lead, connect the negative leads to terminal 3.



Connection of pushbutton switches with a common negative lead.

Terminal 6 – 7:

Detector input for group A and B when used in one premises.
Detector input for group A when used in two premises.
Closure of input represents presence. When relay in presence detector is released, light will go out.
Yellow LED has a steady light when input is effected (closed).

Terminal 8 – 9:

Automatic lighting of group A/ Detector input group B
When used in one premises:
Automatics lighting of group A. If this input will be short circuit with a cable the lighting will be switched on in group A as soon as the detector is effected by presence. Can for ex. be used for step and emergency lighting.

Used in two premises:
Detector input for group B.
Yellow LED has a steady light when input is effected (closed).

Terminal 10 – 11:

Supply voltage for logic module. 10 – 16VDC, 10+ and 11-.
LED (green) lights when supply is connected and flashes when voltage is lower than 11 V or more than 15 V.

Terminal 19-20-21 (C-NO-NC):

Relay output for group A. 19= C, 20= NO and 21= NC.
Relay output for supply by 12 V or 230 VAC contactor.

When memory function is active LED flashes with short pulse.

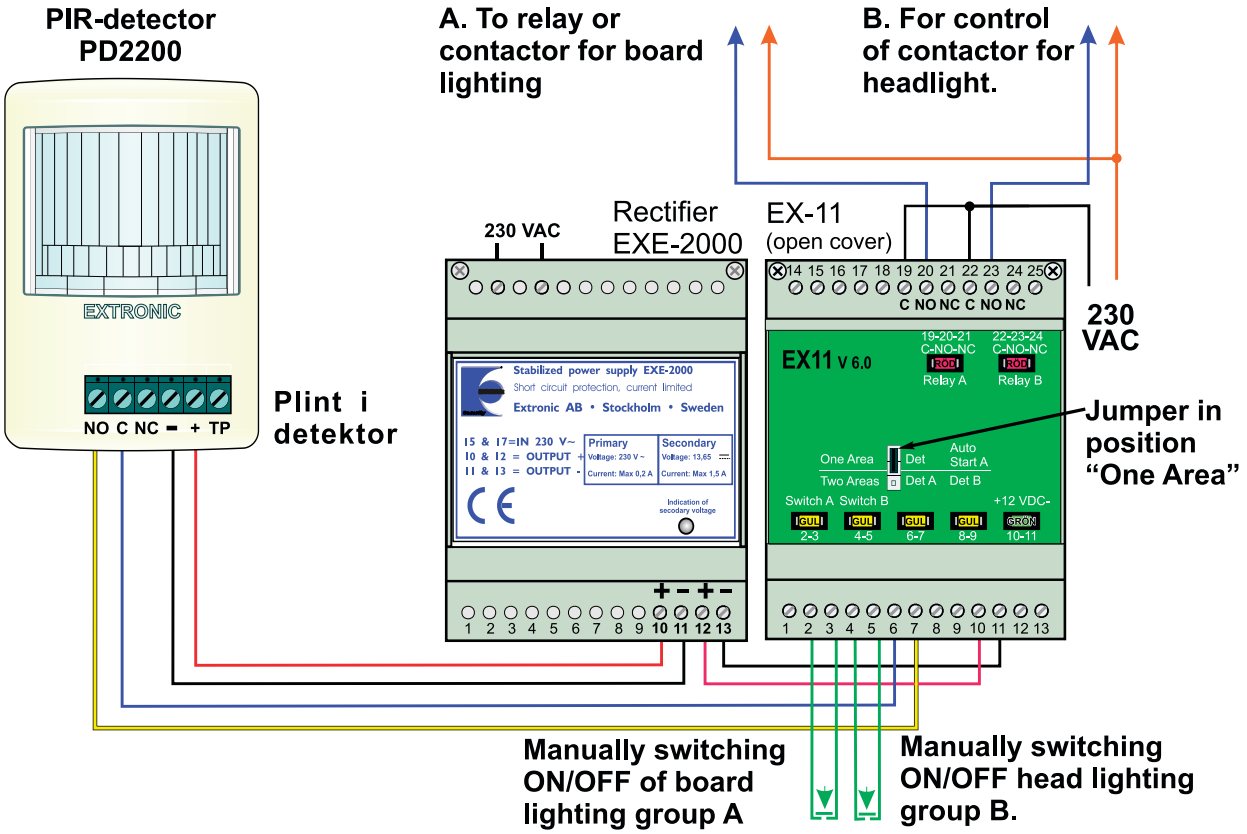
Terminal 22.23.24 (C-NO-NC):

Relay output for group A. 22= C, 23= NO and 24= NC.
Relay output for supply by 12 V or 230 VAC contactor.
When memory function is active LED flashes with short pulse.

Connections

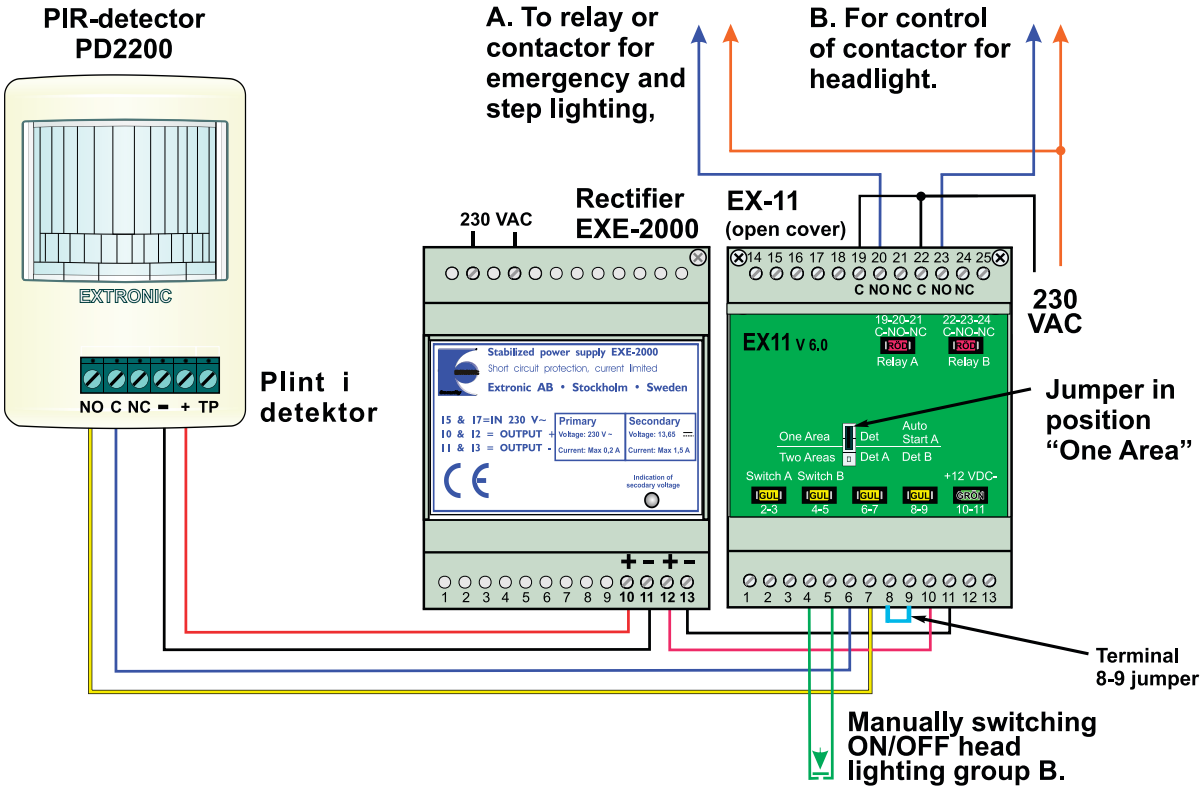
A. One premises with two lighting groups manually switched on.

For ex. Lecture hall with main lighting and board lighting.
Note: Jumper in position “One Area”)



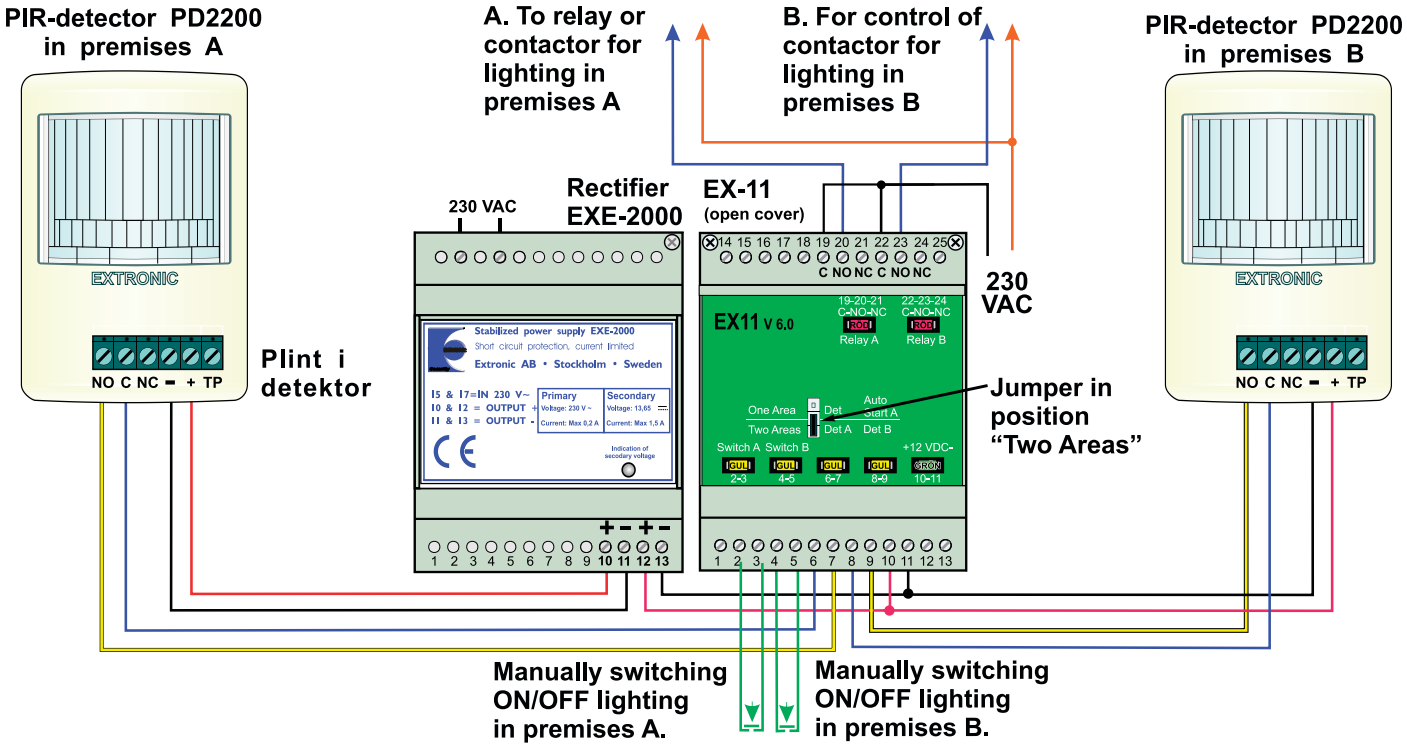
B. One premises with headlight switched on manually and emergency and step lighting will be switched on automatically.

For ex. an assembly-hall.
Note: Jumper between terminal 8 and 9 and jumper in position “One Area”)



C. Two premises with manually switching on, in each of them

For ex. two group room or office..
Note: Jumper in positions “Two Areas”



Accessories

Rectifier EXE-2000

Order No: 18108.
A 13,65 V (12V) rectifier for mounting on DIN rail and fits in NORM-module, current-limited and short-circuit proof.

Presence Detector PD-2200

Order No: 13140
PD2200 is a passive infrared detector for presence detection. It has a very sensitive dual-element, low-noise pyroelectric detector. Electronics and software in PD2200 microprocessor is specially constructed for presence detection.

Acoustic help-detector AD-350

Order No: 13130
AD-350 is an acoustic detector used for controlling lights in combination with PIR-detector.
It operates within a certain frequency between 3 to 7 kHz and will switch on light when a sound within this frequency is detected, before a PIR-detector will notice presence.

Level switches NV-2 / NV-2DSI

NV-2: Order No: 13168,
NV-2DSI: Order No: 13169A,
Level switches NV-2 is intended for use with HF fittings with 1 – 10 V low-level input and for control by a presence detector. With the level switch one can alternate between two preset lighting levels e.g 3% and 80% light. This provides selectable basic light and savings during normal operation.

NV-2DSI as above, but with digital communication, compatible with DSI-Standard.

Technical specification:

Voltage:	10 - 16 VDC
Current at rest::	20 mA @ 13,8V
Current active relay::	120 mA @13,8V
Load:	Max 5 A / 250 VAC per reläutgång vid resistiv belastning.
Size:	91 x 72 x 76 mm (4 moduler)