u::Lux Switch RJ45

Manual

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u::Lux Switch RJ45 – Manual

Contents

Installation

An *u::Lux Switch RJ45* consists of an *u::Lux NetLink RJ45* and an *u::Lux Display*.

The *u::Lux NetLink RJ45* is delivered in a pre-installed metal assembly frame.
The device fits into a 50mm flush-mounting where it has to be fixed (screwed tightly) with the metal assembly frame. We advise however to use a deep flush-mounting (65mm) or even better the application of a so-called electronic flush-mounting (see image below), to comfortably store the network cable/s which is/are connected to the *u::Lux Switch RJ45*.

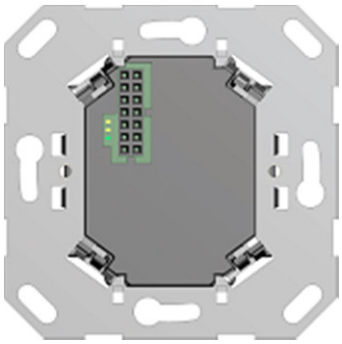
Electronic flush-mounting

Before mounting, please ensure that the used flush-mountings are vertical and flat (plane) to the wall.

Flush-mounting installed correctly

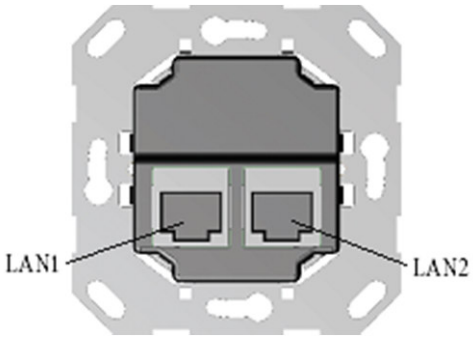
Flush-mounting incorrectly installed

Please note the correct mounting position according to the sketch.



u::Lux NetLink RJ45 – front view (installation position)

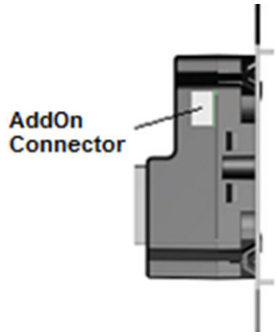
The network cables are conntected to the designated *RJ45 sockets* on the back side. The two ports (LAN1 and LAN2) have the same function and correspond electrically to an “Ethernet Switch”.



u::Lux NetLink RJ45 – back view

The wiring of the system works with a normal network cable, at least category 5e (CAT5e). Please note that the plug connectors have to be mounted carefully to the cable. On our homepage, under the heading of “DOWNLOADS”, in the document “Installation of a RJ45-plug”, you will find more information about the correct mounting of a RJ45 plug connector and the selection of a network cable. It’s not necessary to apply the spout of the cable protector (one-time installation).

Optionally there are extensions (e.g. temperature sensor) available. For this reason there is a plug connector provided laterally on the *u::Lux NetLink RJ45*. Please inform yourself on our website about the possibilities with our *u::Lux AddOn* modules.



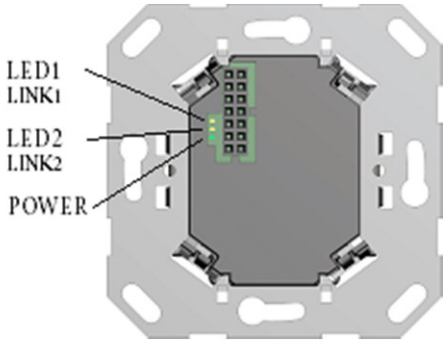
u::Lux-Net Link RJ45 – side view

Installation order

1. Draw in the network cable and cut to length.
2. Attach the network plug connector.
3. Connect the *u::Lux NetLink RJ45* to the network cable.
4. Connect extensions (optionally).
5. Fix the *u::Lux NetLink RJ45* with bolts to the flush-mounting.

Startup

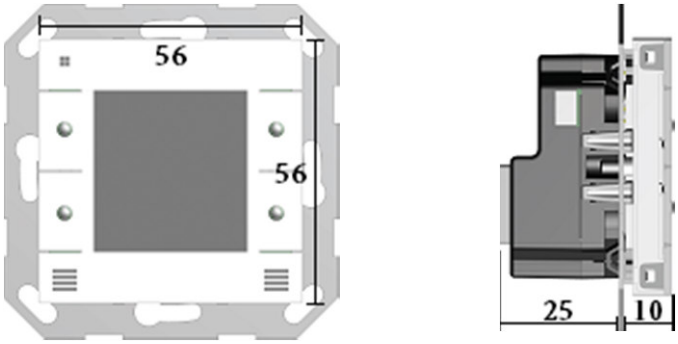
There are three LEDs visible (for diagnostic purposes) in the installed status The lower LED illuminates as soon as the *u::Lux NetLink RJ45* gets provided with energy. Therefore a connection to a power supply, e.g. *u::Lux NetCon Power,* is required.



u::Lux NetLink RJ45 – front view

The both upper LEDs have the function of "LINK" or "AKTIVITY". That means, as soon as an efficient network connection is established, the respective LED (LED1 or/and LED2) illuminates and at network traffic the respective LED starts to flash.
Thereby LED1 indicates the status of the socket LAN1 and LED2 indicates the status of the socket LAN2. Therefore with these LEDs the network wiring and the network traffic can be checked.

The *u::Lux Display* has to be placed in an appropriate frame cover before it gets attached to the *u::Lux NetLink RJ45*. The frame cover is not included in the scope of delivery from the *u::Lux Switch*. Matching frame systems are frame covers in the so-called frame system 55 (opening approx. 56mm). On our homepage you will find a preliminary list of individual manufacturers and model designations. Then the *u::Lux Display* combined with the frame cover has to be attached to the *u::Lux NetLink RJ45*.



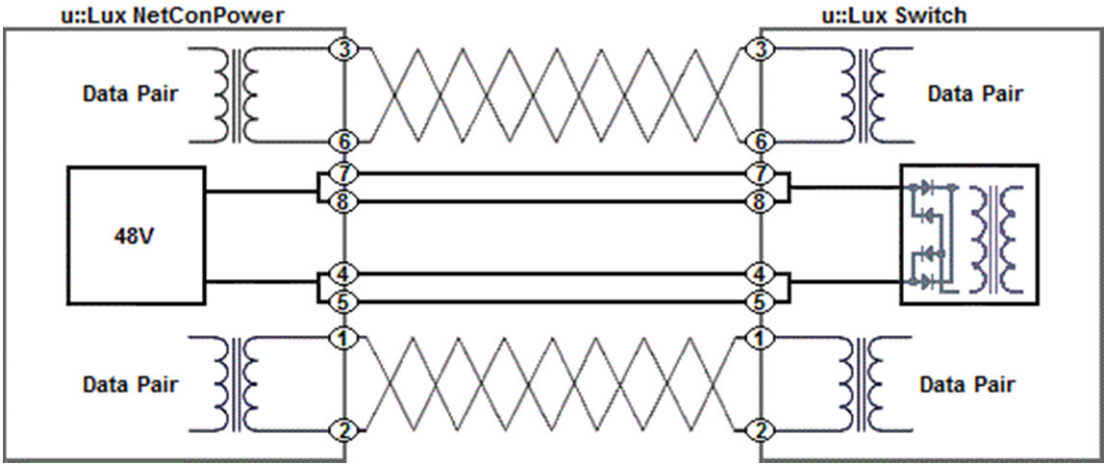
u::Lux Switch RJ45 – front view, side view and measurements (without aperture system)

Startup order

1. Connect the *u::Lux Switch RJ45* via network cable with the *u::Lux NetCon Power* (max. 10 *u::Lux Switches* to an *u::Lux NetCon Power* line. That means that one *u::Lux NetCon Power* can provide up to 20 *u::Lux Switches RJ45*).
2. Provide the *u::Lux NetCon Power* with voltage (VCC).
3. Check the LEDs on the *u::Lux NetLink RJ45.*
4. Place the *u::Lux Display* in an appropriate frame cover and attach both to the *u::Lux NetLink RJ45*.

Energy supply

The energy supply of the *u::Lux Switch RJ45* is provided through the "free" lines of the network connection (network cable) with 48 volts. For that purpose lines 4+5 (are connected) and lines 7+8 (are connected) are used. According to the PoE standards the *u::Lux Switch RJ45* is no terminal device.



Internal components

The *u::Lux Display* contains the following functional groups:

Display

High-resolution graphic display with a visible resolution of 176x184 pixels and 262.144 colours, currently 65.536 colours are used.

Keys

All 4 keys have a mechanical pressure point. Basically they serve to transmit the switching commands (e.g. light on, light off), and the setting of parameters (e.g. temperature specifications for heating regulation) or they also serve to select a submenu.

RGB LED

One LED is assigned to each push button. By using the RGB LED there can be created mixed colours like yellow, magenta, cyan and white, additionally to the 3 basic colours red, green and blue.

Infrared receiver / infrared sensor

The *u::Lux Switch* includes an infrared transmitter (emitter) and an infrared receiver (detector).
The infrared transmitter is basically needed as a source of infrared for the proximity sensor. The infrared receiver detects signals of an infrared remote control and is used as detector for the proximity sensor.

Brightness sensor

Valid until u::Lux Switch serial number 2699: The brightness sensor detects light intensity of more than 500 lux in the wavelength range from approx. 450nm until approx. 850nm (visible light).
Valid from u::Lux Switch serial number 2700: The brightness sensor detects light intensity until 65536 Lux (also depending on the installation situation) in the wavelength range from approx. 450nm until approx. 850nm (visible light).

Microphone

The microphone is principally designed for the recording of speech. The sensitivity can be selected in 2 levels.

Loud speaker

The loud speaker or amplifier of the loud speaker is designed for a maximum power output of 0,5W.

Technical data

The data refer to the *u::Lux Switch RJ45* which consists of the *u::Lux NetLink RJ45* & *u::Lux Display*.

Supply:	48V, with *u::Lux NetCon Power*
Power consumption:	min. 1,5 W, max. 2,4 W, type 2 W (display switched on)
Connection (NetLink RJ45):	2 Ethernet RJ45 sockets, 1 expansion connector
Notification (NetLink RJ45):	1 x LED (green) for energy supply, a LED (yellow) for LAN-port 1 and 2 for the display of „LINK“ and „AKTIVITY“
Network:	100BaseT
Display:	TFT, 184x176 pixels, 262.144 colours, therefrom used 65.536
Ambient temperature:	-10 °C to +40°C
Storage temperature:	-30 °C to +80°C
Protection type:	IP30
Protection class:	III
Installation depth:	suitable for 50mm flush-mounting
Installation dimensions:	suitable for 56mm x 56mm aperture systems

Hazard warnings

Attention! Assembly and installation of electrical devices may only be performed by a qualified electrician. Strictly observe the prevailing accident prevention measures. Failure to observe the installation instructions may result in damage to the device, fire or other dangers.

CE marking

The CE marking is exclusively addressed to the governmental supervising authorities of the Member States and facilitates the free movement of goods. The CE marking does not represent any guarantee of specific features.

Guarantee

The guarantee complies with the statutory requirements. Technical changes and error reserved.

Ordering information

u::Lux Switch RJ45	order number 10200
u::Lux Switch RJ45 without microphone	order number 10205

Version Management

Version	Date	Name	Note
1.00	02.05.2012	KH	creation of the document
1.01	04.10.2012	THSI	correction/release
1.02	18.12.2012	AK	correction/release
1.03	07.01.2013	THSI	editorial modification
1.04	21.01.2013	KH	extension of „Energy supply“
1.05	18.03.2013	THSI	update of the ordering information
1.06	30.04.2013	THSI	extension of electronic flush sockets, ordering information of *u::Lux Switch Set* with *u::Lux AddOn Temp*
1.07	19.08.2013	AK	text of LED has been revised and colours of LED have been defined
1.08	14.01.2013	THSI	new order numbers have been supplemented
1.09	05.02.2014	AK	frame system 55 has been inserted in the description
1.10	11.02.2014	AK	new item numbers
1.20	26.05.2014	KH	changed to -> *u::Lux Switch RJ45* (*u::Lux NetLin RJ45*). AddOn removed!
1.21	01.10.2014	AK	contact has been updated
1.22	26.03.2021	CB	Update brightness sensor, ordering information
1.23	30.03.2021	CB	Anti-theft screws deleted