u::Lux AddOns

Manual

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u::Lux AddOns - Manual

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General Information

The *u::Lux AddOns* are sensor modules which are connected via 4-pole cable (included in scope of delivery of the *u::Lux AddOn*) to the *u::Lux NetLink RJ45, u::Lux NetLink KNX, u:.Lux NetLink dS* or *u::Lux NetLink IDC*. The AddOns are divided into the groups AddOn with measuring sensors and AddOn without measuring sensors.
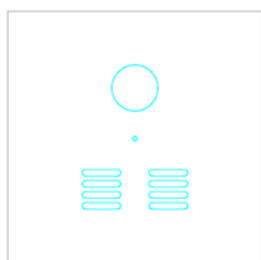
AddOn with measuring sensors

The following *u::Lux AddOns* have built-in measuring sensors (temperature, humidity, CO2) and the same mechanical dimensions like the *u::Lux Switch* (approx. 56mm x 56mm). Therefore they can be installed in the same frame systems:

- *u::Lux AddOn RH+Temp*
  detects humidity and temperature

- *u::Lux AddOn MD+RH+Temp*
  detects motion, humidity and temperature

- *u::Lux AddOn CO2+RH+TEMP* -> **Attention! Can't be used with KNX version!**
  detects CO2 content, humidity and temperature (Order Nr. 11103, 11104)

- *u::Lux AddOn Multisensor* (Currently not compatible with KNX and digitalSTROM version
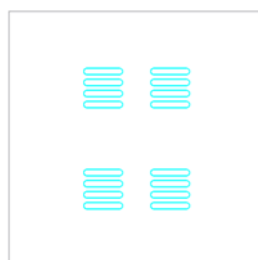) detects motion, CO2 content, humidity and temperature (Order. Nr. 11381)

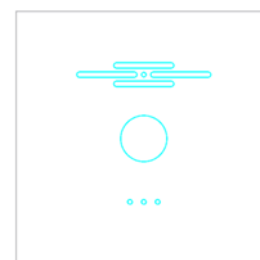These *u::Lux AddOns* differ in the following versions in appearance:

| AddOn RH+TEMP | AddOn MD+RH+TEMP | AddOn CO2+RH+TEMP | AddOn Multisensor |

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Assembly

The mechanical assembly of the *u::Lux AddOns* is always done near an *u::Lux Switch*. The best results have been achieved with the use of two single-flush-mountings assembled below each other or one double-flush-mounting in which the *u::Lux Switch* with the *u::Lux AddOn* is mounted and a double frame is attached.

The *u::Lux AddOn* is connected to the *u::Lux NetLink* with the supplied cable. The pre-assembled connector has a reverse polarity protection. Nevertheless, please make sure that the connector is plugged in correctly!

! Attention !
For a useful detection of the indoor climate the sensors intended for this purpose have to be mounted at the right place.
We recommend the use of air-tight flush-mounting boxes so that measurement results will not be falsified.
Moreover, there are some parts of the room which do not reflect the real indoor climate (heating pipes, ventilation grilles, radiators…). Please note that you have to mount the room climate sensors at an appropriate distance from these parts.

The extension of the AddOn cables is not permitted (EMC, data transfer)!

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Assembly order

1. Install the mounting frame for the *u::Lux Switch* in the upper flush-mounting.
2. Install the mounting frame for the *u::Lux AddOn* in the lower flush-mounting.
3. Disconnect the cable (4-pole – white) from the *u::Lux AddOn*.
4. Depending on the used *u::Lux NetLink,* connect the cable either (laterally) to the corresponding socket of the *u::Lux NetLink RJ45, NetLink KNX, NetLink dS* or connect the cable to the *u::Lux NetLink LSA/IDC* (before possibly disconnect the *u::Lux NetLink* from the *u::Lux* Display).
5. Install the *u::Lux NetLink* in the upper flush-mounting. (Please avoid jamming the cable)
6. Thread the cable from the upper flush-mounting to the lower one.
7. Attach the double frame/trim to the mounting frame of *u::Lux NetLink* and *u::Lux AddOn*.
8. Mount the *u::Lux Display* on the *u::Lux NetLink*.
9. Connect the *u::Lux AddOn* to the cable and insert it into the mounting frame/trim (press slightly).
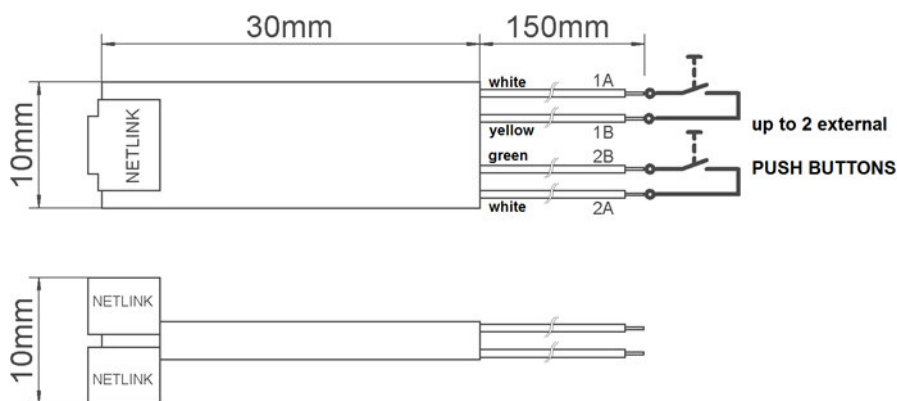
AddOns without measuring sensors

The following *u::Lux AddOns* have no in-built measuring sensors (e.g. digital inputs and outputs) and are installed generally in a hidden way (because of their small mechanical measurements).

- *u::Lux AddOn IN2*
  has 2 digital inputs for connecting up to 2 push buttons or 2 switches.

The *u::Lux AddOn* IN2 has the following mechanical measurements and connection possibilities:

Assembly

Generally there are connected one or two push buttons or switches to the *u::Lux AddOn* IN2. One push button or switch is connected to the connection pair 1A-1B or 2A-2B. The best results have been achieved with the use of two single-flush-mountings assembled below each other or one double-flush-mounting. The *u::Lux Switch* is placed into the upper flush-mounting. The switch/push button is mounted into the lower one. Also the *u::Lux AddOn* IN2 has to be placed in the lower flush-mounting.

The connection to the *u::Lux NetLink* (connection cable included) is established through one of the connectors (referred to as NETLINK). Only one additional sensor AddOn can be connected to the free NETLINK connector. The connection of another *u::Lux AddOn* IN2 is not permitted and causes malfunction!
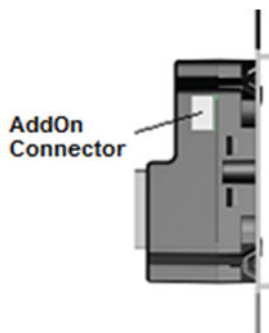
! Attention !
No further voltages are necessary for the operation of AddOn IN2. The connection of the AddOn IN2 to additional external voltages, such as 230V AC, is not permitted! The cable extension of the AddOn IN2 is not permitted (EMC, data transfer)!

Assembly order

1. Install the mounting frame for the *u::Lux Switch* in the upper flush-mounting.
2. Install the mounting frame for the push button or the switch in the lower flush-mounting.
3. Disconnect the cable (4-pole – white) from the *u::Lux AddOn*.
4. Depending on the used *u::Lux NetLink* connect the cable either (laterally) to the corresponding socket of the *u::Lux NetLink RJ45 or NetLink KNX or* connect the cable to the *u::Lux NetLink LSA/IDC* (before possibly disconnect the *u::Lux NetLink* from the *u::Lux Display*).
5. Install the *u::Lux NetLink* in the upper flush-mounting. (Please avoid jamming the cable).
6. Thread the cable from the upper flush-mounting to the lower one.
7. Insert the *u::Lux AddOn* into the lower flush-mounting and connect the switch or push button.
8. Attach the double frame/trim to the mounting frame of *u::Lux NetLink* and the push button or switch.
9. Insert and fix the push button or switch into the mounting frame/trim.
10. Mount the *u::Lux Display* to the *u::Lux NetLink*.

Connection to u::Lux NetLink RJ45, NetLink KNX or NetLink dS

At the version *u::Lux Net LINK RJ45, NetLink KNX and NetLink dS* the connector (plug) for the *AddOn* cable is located on the side of the housing. The connector has a reverse polarity protection.

Nevertheless, please make sure that the connector is plugged in correctly!

Connect to u::Lux NetLink LSA/IDC

At the version *u::Lux Net Link LSA/IDC* the connectors for the *AddOn* cable are located at the LSA/IDC ring.

At this ring there are imprinted the colours of the *u::Lux AddOn* cable (red, violet, yellow, black). Please connect the four cables according to the colours on the ring (see illustration). The *AddOn* cable must of course be inserted before (same as the Ethernet cable) at the rear side of the LSA/IDC-socket.
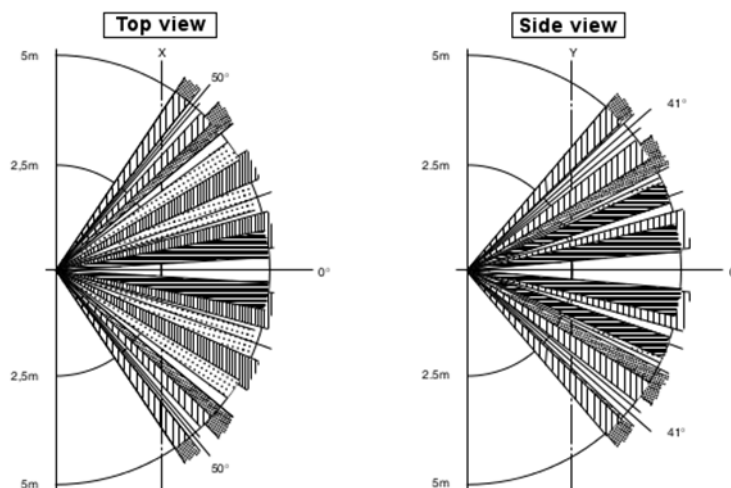
Technical data for AddOn with measuring sensors

Energy supply:	via *u::Lux NetLink (typ. 3,3V)*
Power consumption:	*AddOn RH+TEMP*: max. 3mA@3,3V (~10 mW)
	AddOn MD+RH+TEMP: max. 5mA@3,3V (~20 mW)
	AddOn CO2+RH+TEMP: max. 120mA@3,3V (~400mW)
	AddOn Multisensor: max. 80mA@3,3V (~300mW)
Connections:	4-pole connecting cable with connector or free wires to connect to *u::Lux NetLink*
Ambient temperature:	-10°C to +40°C
Storage temperature:	-20°C to +60°C
Protection type:	IP30
Protection class	III
Installation dimensions:	55mm x 55mm x 20mm
Housing materials:	*ABS synthetic pure white (similar to Gira blind cover 0268 03)*
Housing temperature range:	up to +70°C
Temperature measurement range:	Sensor -55°C to +125°C, accuracy at 25°C +/- 0,5°C, in the range from -10°C to +85°C +/- 1°C
Humidity measuring:	Sensor 0% to 100% (non-condensing), accuracy +/- 2%
CO2 measuring (11103):	400ppm to 4000ppm (0,040 Vol.-% to 0,4 Vol.-%)
CO2 measuring (11104):	360ppm to 5000ppm (0,036 Vol.-% to 0,5 Vol.-%) accuracy $\pm$(50ppm+3%)
CO2 measuring (11381):	400ppm bis 2000ppm (0,040 Vol. % bis 0,2 Vol. %) accuracy: $\pm$(50 ppm + 5%)
CO2 calibration:	All the CO2 sensors used are pre-calibrated, but require weekly recalibration with fresh air (e.g. through forced ventilation). The CO2 sensors are recalibrated automatically as soon as the sensor detects low CO2 values (approx. 400ppm).

Motion detection:	distance (to the sensor) 5m, angle horizontal 94°, angle vertical 82°. A RGB Led can be used for signalisation (freely programmable)

Technical Data for AddOn without measuring sensors

Energy supply:	via *u::Lux NetLink*
Power consumption:	*u::Lux AddOn IN2*, max. 4mA@3,3V (~15 mW)
Connections NetLink:	4-pole connection cable with connector or free wires to connect to *u::Lux NetLink*
Connections push button / switch:	2 pairs of wires (1A-1B and 2A-2B), 150mm long, to connect to one or two standard push buttons or switches
Ambient temperature:	-10°C to +40°C
Storage temperature:	-20°C to +60°C
Protection type:	IP20
Protection class:	III
Installation dimensions:	30mm x 10mm x 5mm (20mm)
Housing materials:	electronic board welded in black heat shrink tube
Housing temperature range:	up to +70°C

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 AddOn RH+TEMP	order number 10952
u::Lux AddOn MD+RH+TEMP	order number 11092
u::Lux AddOn CO2+RH+TEMP	order number 11103, 11104
u::Lux AddOn Multisensor	order number 11381
u::Lux AddOn IN2	order number 11001

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Version Management

Version	Date	Name	Notes
1.00	04.11.2013	KH	Creation of the document
1.01	17.11.2013	THSI	Correction/Release
1.02	17.12.2013	KH	Addition of u::Lux AddOn RH+TEMP, u::Lux AddOn MD+RH+TEMP, u::Lux AddOn CO2
1.03	11.02.2014	AK	Name change and new article number
1.04	21.05.2014	KH	Addition (images)
1.10	27.05.2014	KH	new structure, IN2 added
1.11	17.06.2014	KH	Addition image motion detector
1.12	26.08.2014	KH	Connection to …
1.13	01.10.2014	AK	Contact updated
1.14	03.02.2015	KH	Addition AddOn with measuring sensors assembly Addition connection to u::Lux LSA
1.15	17.11.2015	KH	Addition technical data
1.16	29.09.2016	KH	Addition NetLink KNX
1.17	12.10.2016	KH	Addition AddOn CO2+RH+TEMP
1.18	10.07.2019	CB	Addition NetLink dS
1.19	15.11.2022	AK	Addition AddOn CO2+RH+TEMP (11104)
1.20	15.06.2023	AK	Addition AddOn Multisensor (Order. Nr. 11381), technical data updated