

## Outdoor motion sensor and light sensor, multisensors with active and switching output

The room motion and light sensor KINASGARD® ABWF / LF is a combined instrument that detects motions and light intensity as well as the presence of persons and is used to recognize conditions. ABWF / LF issues a standard signal of 0 - 10V for light intensity and has a switching (changeover contact) output for the detection of motions. The motion sensor / presence detector detects the presence of persons and motions. It is used for the observation and recognition of conditions and for a motion-dependent control of room functions, e.g. as motion detector to lower temperatures in unused rooms. The motion sensor is applied in corridors, in outdoor areas, in industrial halls, in offices, residential rooms and business facilities. The light intensity sensor / twilight sensor with six switchable measuring ranges (six devices in one) measures the luminous intensity and is used to control luminaries, lighting systems, Venetian blinds and canvas blinds, etc., to monitor lighting conditions at workplaces, in greenhouses, storage halls, workshops, corridors, in outdoor areas, in industrial halls, in offices as well as in residential and business facilities, for daylight-dependant constant light control, as light intensity or twilight sensor and to control sunshade equipment avoiding unnecessary heating-up of rooms.

ABWF / LF



### TECHNICAL DATA:

Power supply: ..... at U variant: 24 V AC ( $\pm 20\%$ ); 15...36 V DC ( $\pm 10\%$ )

at I variant: 15...36 V DC ( $\pm 10\%$ ) depending on  
working resistance, stabilized, max ripple 0.5 Vpp

Power consumption: ..... < 1 W at 24 V DC; < 2 VA at 24 V AC

Sensor: ..... infrared motion sensor and light sensor  
(see beginning of this chapter)

Output, motion sensor: ..... without / with motion,  
potential-free normally open contact 24 V / 1 A

After-running time: ..... adjustable from 4 s to 16 min

Measuring ranges: ..... **multi-range switching** (via DIP switches)  
with 6 switchable measuring ranges  
**0...500 Lux / 1 kLux / 2 kLux / 5 kLux / 20 kLux / 60 kLux**  
(other individual ranges optional, e.g. 100 kLux)

Output: ..... 0-10V (linearised, active, 3-wire connection)

Measuring error: ..... < 5% of final value

Ambient temperature: ..... -30...+70 °C

Electrical connection: ..... 0.14 - 1.5 mm<sup>2</sup>, via terminal screws on circuit board

Enclosure: ..... plastic, material polyamide, 30% glass-globe-reinforced,  
with quick-locking screws (slotted / Phillips head combination),  
colour pure traffic white (similar RAL 9016)

Dimensions: ..... 72 x 64 x 37.8 mm (Tyr 1)

Cable gland: ..... M 16x1.5, including strain relief, exchangeable,  
max. inner diameter 10.4 mm

Installation: ..... on-wall

Protection class: ..... III (according to EN 60730)




Protection type: ..... IP 30 (according to EN 60529)




Standards: ..... CE conformity, electromagnetic compatibility according to  
EN 61326, EMC directive 2004 / 108 / EC

| Measuring ranges<br>(selectable) | DIP<br>1  | DIP<br>2  | DIP<br>3  | DIP<br>4 |
|----------------------------------|-----------|-----------|-----------|----------|
| 0...500 Lux                      | OFF       | OFF       | OFF       | —        |
| 0... 1 kLux                      | <b>ON</b> | OFF       | OFF       | —        |
| 0... 2 kLux                      | OFF       | <b>ON</b> | OFF       | —        |
| 0... 5 kLux                      | <b>ON</b> | <b>ON</b> | OFF       | —        |
| 0... 20 kLux                     | OFF       | OFF       | <b>ON</b> | —        |
| 0... 60 kLux                     | <b>ON</b> | OFF       | <b>ON</b> | —        |

### Connecting diagram

ABWF / LF

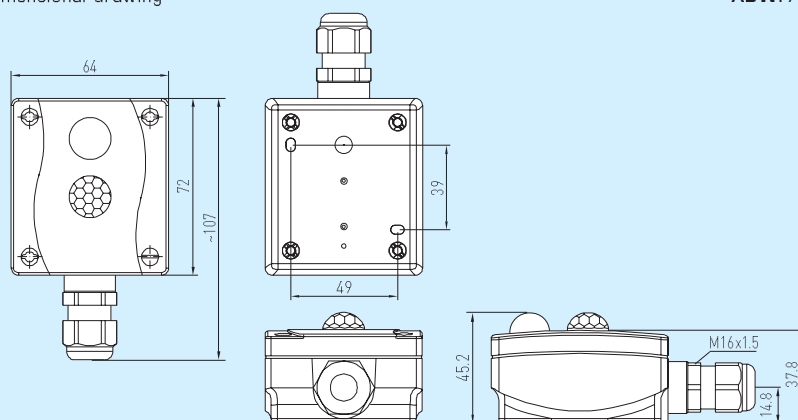
-  1 UB+ supply voltage 24V AC/DC
-  2 Output light intensity 0-10V (linearised)
-  3 UB- GND

-  13 Normally open contact
-  11 Breaker
-  12 Breaker

changeover  
[24 V]

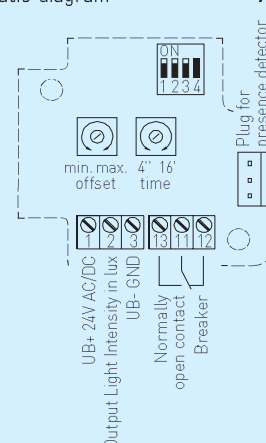
### Dimensional drawing

ABWF / LF



### Schematic diagram

ABWF / LF



### KINASGARD® ABWF / LF

| Type / WG1           | Detection,<br>Measuring Range                             | Output               | Item No.           | Price      |
|----------------------|---|----------------------|--------------------|------------|
| ABWF-LF              |   |                      |                    |            |
| 1. Presence / Motion | Yes / No  | Changeover contact   | 1401-1111-2100-000 | 169,00 €   |
| 2. Light Intensity   | 0...500 Lux / 1 / 2 / 5 / 20 / 60 kLux                    | 0 -10 V (linearised) |                    |            |
| Extra charge:        | Other individual measuring ranges optional, e.g. 100 kLux |                      |                    | on request |



S+S REGELTECHNIK

KINASGARD® RBWF/LF

Room motion sensor and light sensor,  
multisensors with active and switching output

RBWF/LF

The room motion and light sensor KINASGARD® RBWF-LF-UP is a combined instrument that detects motions and light intensity as well as the presence of persons and is used to recognize conditions. KINASGARD® RBWF-LF-UP issues a standard signal of 0-10V for light intensity and has a switching (normally open contact) output for the detection of motions. This multisensor is used in building automation, in corridors, at workplaces, in industrial halls, in offices and business facilities for the control of lighting as needed, e.g. to control sunshade equipment, for daylight-dependant constant light control, for activating Venetian blinds or luminaries, for automatic energy conservation, and to avoid unnecessary heating-up or cooling of unoccupied rooms for in-wall installation in connection with light switch programmes.

#### TECHNICAL DATA:

Power supply: ..... at U variant: 24V AC ( $\pm 20\%$ ); 15...36V DC ( $\pm 10\%$ )  
at I variant: 15...36V DC ( $\pm 10\%$ ) depending on  
working resistance, stabilized, max ripple 0.5 Vpp

Power consumption: ..... < 1 W at 24 V DC; < 2 VA at 24 V AC

Sensor: ..... infrared motion sensor and light sensor  
(see beginning of this chapter)

Detection range: ..... perimeter 360°, aperture angle 90° / 110°,  
reach ca. 10 m, circular

Motion detection: ..... of persons and objects, necessary temperature  
difference between subject and ambience  $\geq 5$  K

Output, motion sensor: ..... without / with motion,  
potential-free normally open contact 24 V / 1A

After-running time: ..... adjustable from 4 s to 16 min

Measuring ranges: ..... multi-range switching (via DIP switches)  
with 4 switchable measuring ranges  
**0...500 Lux / 1 kLux / 5 kLux / 20 kLux**  
(other individual ranges optional, e.g. 100 kLux)

Output, light sensor: ..... 0-10V (linearised, active, 3-wire connection)

Measuring error: ..... < 5 % of final value

Ambient temperature: ..... 0...+50 °C

Electrical connection: ..... 0.14 - 1.5 mm<sup>2</sup>, via terminal screws on circuit board

Enclosure: ..... plastic, material ABS, colour pure white (similar RAL 9010)

Dimensions: ..... 85 x 91 x 27 mm (Frijal)

Installation: ..... wall mounting or on in-wall flush box,  $\varnothing 55$  mm,  
base with 4-hole for mounting on vertically or horizontally  
installed in-wall flush boxes for cable entry from the back,  
with predetermined breaking point for on-wall cable entry  
from top / bottom in case of plain on-wall installation

Protection class: ..... III (according to EN 60 730)

Protection type: ..... IP20 (according to EN 60 529)

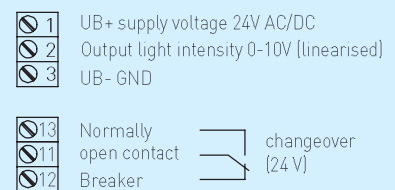
Standards: ..... CE conformity, electromagnetic compatibility according to  
EN 61 326, EMC directive 2004 / 108 / EC



| Measuring ranges<br>(selectable) | DIP<br>1 | DIP<br>2 | DIP<br>3 | DIP<br>4 |
|----------------------------------|----------|----------|----------|----------|
| 0...500 Lux                      | ON       | OFF      | OFF      | OFF      |
| 0... 1 kLux                      | OFF      | ON       | OFF      | OFF      |
| 0... 5 kLux                      | OFF      | OFF      | ON       | OFF      |
| 0... 20 kLux                     | OFF      | OFF      | OFF      | ON       |

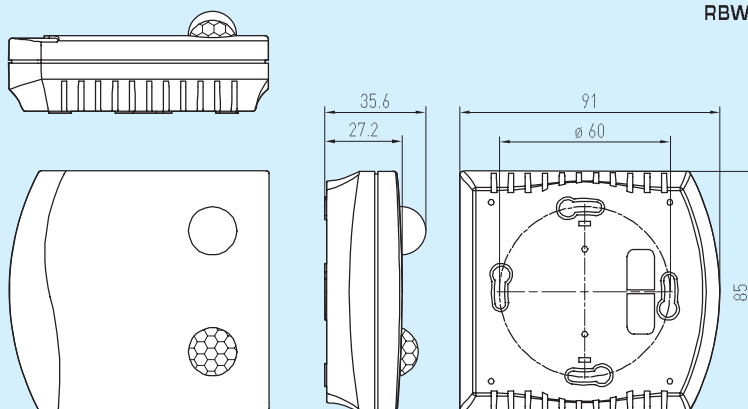
#### Connecting diagram

RBWF/LF



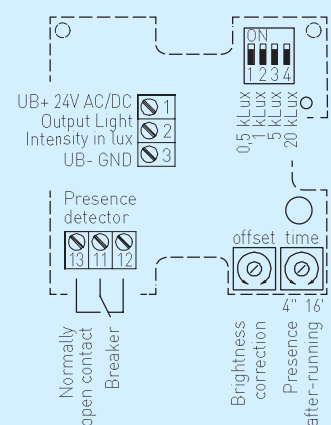
#### Dimensional drawing

Enclosure Frijal  
RBWF/LF



#### Schematic diagram

RBWF/LF



#### KINASGARD® RBWF/LF

| Type / WG1           | Detection,<br>Measuring Range                              | Output               | Item No.           | Price      |
|----------------------|--|----------------------|--------------------|------------|
| RBWF-LF              |  |                      |                    |            |
| 1. Presence / Motion | Yes / No   | Changeover contact   | 1401-4121-1100-000 | 169,00 €   |
| 2. Light Intensity   | 0...500 Lux / 1 kLux / 5 kLux / 20 kLux                    | 0 -10 V (linearised) |                    |            |
| Extra charge:        | Other individual measuring ranges optional, e. g. 100 kLux |                      |                    | on request |