

Outdoor light intensity sensors / twilight sensors with multi-range switching and active output

The light intensity sensor / twilight sensor PHOTASGARD® AHKF 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. Therefore it minimizes your variety of types and stockkeeping while covering a greater range of universal applications. The sensor used in PHOTASGARD® light intensity sensors was specifically adapted to the sensitivity of the human eye. Its greatest sensitivity is in the range of 350 nm to 820 nm. Therefore with its special filter the sensor is predestined for exposure measurement of daylight and / or for measuring artificial light of high colour temperature (similar to sunlight).

TECHNICAL DATA:

Power supply: at U variant: 24 V AC (± 20%); 15...36 V DC (± 10%)
 at I variant: 15...36 V DC (± 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: light sensor (see beginning of this chapter)

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: 4...20 mA or 0-10 V
 (linearised, active, 2- or 3-wire connection)

Measuring error: < 5% of final value

Ambient temperature: -30...+70 °C

Electrical connection: 0.14 - 1.5 mm², 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), enclosure cover for **AHKF** is transparent!

Dimensions: 72 x 64 x 43.3 mm (Tyr 1)

Cable gland: M16x1.5, including strain relief, exchangeable, max. inner diameter 10.4 mm

Installation: on-wall

Protection class: III (according to EN 60730)

Protection type: IP 65 (according to EN 60529)

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

AHKF



Measuring ranges (selectable)	DIP 1	DIP 2	DIP 3	DIP 4
0...500 Lux	OFF	OFF	OFF	-
0... 1 kLux	ON	OFF	OFF	-
0... 2 kLux	OFF	ON	OFF	-
0... 5 kLux	ON	ON	OFF	-
0... 20 kLux	OFF	OFF	ON	-
0... 60 kLux	ON	OFF	ON	-

Connecting diagram

AHKF-U

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

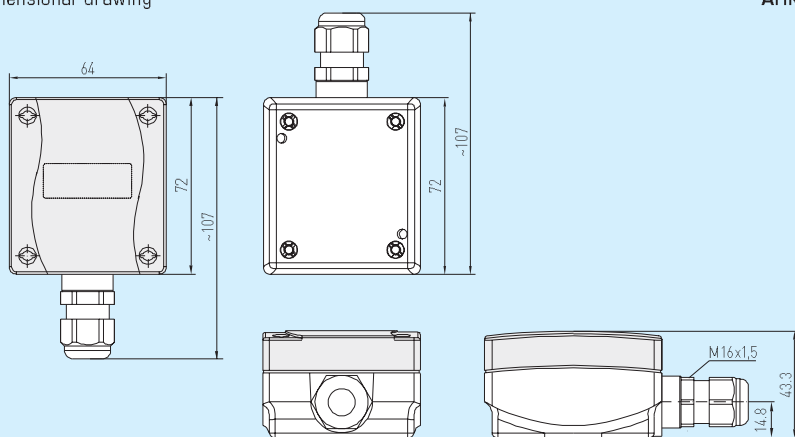
Connecting diagram

AHKF-I

- 1 UB+ supply voltage 24V AC/DC
- 2 Output light intensity 4...20mA (linearised)

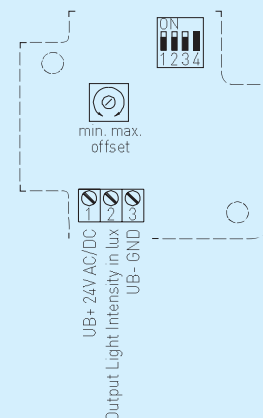
Dimensional drawing

AHKF



Schematic diagram

AHKF



PHOTASGARD® AHKF

Type / WG1	Measuring Range Light Intensity (adjustable)	Output Light Intensity	Item No.	Price
AHKF				
AHKF-I	0...500 Lux / 1 / 2 / 5 / 20 / 60 kLux	4...20 mA (linearised)	1601-1112-1000-000	80,00 €
AHKF-U	0...500 Lux / 1 / 2 / 5 / 20 / 60 kLux	0-10V (linearised)	1601-1111-1000-000	80,00 €
Extra charge:	Other individual measuring ranges optional, e.g. 100 kLux			on request



S+S REGELTECHNIK

Room light intensity sensors with multi-range switching and active output

The room light intensity sensor PHOTASGARD® RHKF with four switchable measuring ranges (four 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 storage halls, workshops and corridors, in indoor 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. Therefore it minimizes your variety of types and stockkeeping while covering a greater range of universal applications. The sensor used in PHOTASGARD® light intensity sensors was specifically adapted to the sensitivity of the human eye. Its greatest sensitivity is in the range of 350nm to 820nm. Therefore with its special filter the sensor is predestined for exposure measurement of daylight and / or for measuring artificial light of high colour temperature (similar to sunlight).

TECHNICAL DATA:

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

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

Sensor:light sensor (see beginning of this chapter)

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:.....4...20mA or 0-10V (linearised, active, 2- or 3-wire connection)

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

Ambient temperature:.....0...+ 50°C

Electrical connection:0.14 - 1.5 mm², via terminal screws on circuit board

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

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

Installation:wall mounting or on in-wall flush box, Ø 55mm, 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 60730)

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

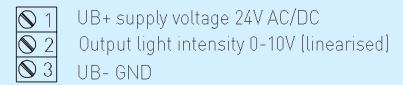
Standards:CE conformity, electromagnetic compatibility according to EN 61326, EMC directive 2004 / 108 / EC

RHKF

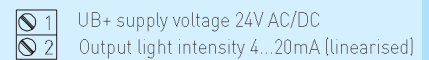


Table with 5 columns: Measuring ranges (selectable), DIP 1, DIP 2, DIP 3, DIP 4. Rows show ranges from 0...500 Lux to 0...20 kLux with corresponding DIP switch settings.

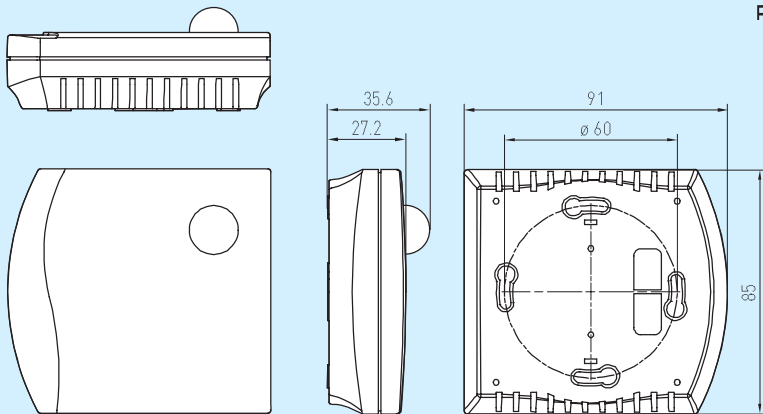
Connecting diagram RHKF-U



Connecting diagram RHKF-I

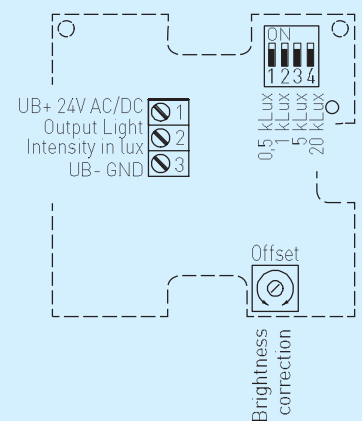


Dimensional drawing



Enclosure FrijaI RHKF

Schematic diagram RHKF



PHOTASGARD® RHKF

Product specification table with columns: Type / WG1, Measuring Range, Output, Item No., Price. Includes rows for RHKF-I and RHKF-U, and an extra charge section.