

Outdoor light intensity sensors/twilight sensors with multi-range switching and active output, series Thor I

The light intensity sensor/twilight sensor PHOTASGARD® AHKF 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 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). The case of the sensor is hermetically tight, the vision panel is protected by a glass plate.

TECHNICAL DATA:

Power supply: 24V AC/DC,
current consumption max. 10mA at 24V DC

Sensor: photodiode with glass case (see beginning of this chapter)

Measuring ranges: **0...500 Lux / 1 kLux / 20 kLux / 60 kLux,**
multi-range switching (via DIP switches) see schematic diagram
(other individual ranges optional, arbitrarily selectable, e.g. 100 kLux)

Output: 4...20mA (active) or
0-10V (linearised)

Ambient temperature: -10...+50 °C

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

Measuring error: < ± 10% of final value

Temperature drift: < ± 5% of final value / 10K

Enclosure: plastic, material polyamide, 30% glass-globe-reinforced,
with quick-locking screws,
colour pure white (similar RAL9010)

Dimensions: 72 x 64 x 39.4 mm

Installation: on-wall

Cable gland: M16, including strain relief

Protection class: III (according to EN 60730)

Protection type: IP 65 (according to EN 60529)

Standards: CE conformity, electromagnetic compatibility
according to EN 61326 + A1 + A2,
EMC directive 2004 / 108 / EC

AHKF



Connecting diagram

AHKF-U

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

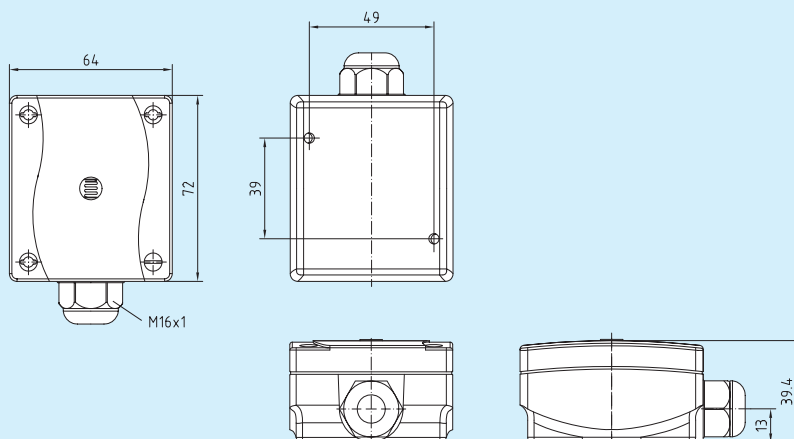
Connecting diagram

AHKF-I

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

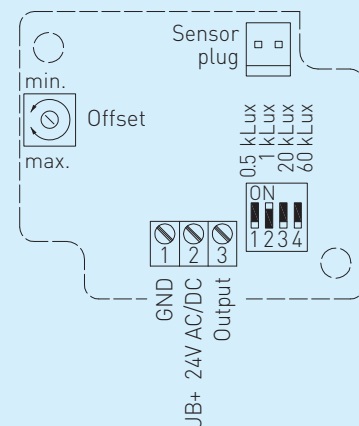
Dimensional drawing

AHKF



Schematic diagram

AHKF



PHOTASGARD® AHKF

Type/WG1	Measuring Range Light Intensity (selectable)	Output Light Intensity
AHKF-I	0...500 Lux / 1 kLux / 20 kLux / 60 kLux	4...20mA (linearised)
AHKF-U	0...500 Lux / 1 kLux / 20 kLux / 60 kLux	0-10V (linearised)
Optional:	Other individual measuring ranges	