

**In-ceiling light intensity sensors,  
with multi-range switching  
and active output**

The light-intensity sensor **PHOTASGARD® DHKF** with six switchable measuring ranges (six devices in one) for installation in suspended ceilings. The connecting head is pluggable for quick and easy mounting. The measuring transducer is accommodated in a separate housing.

The sensor used was specifically adapted to the sensitivity of the human eye. Its greatest sensitivity is in the range of 400nm to 700nm. With its special filter, the sensor is therefore ideally suited to exposure measurement of daylight and/or for measuring artificial light of high colour temperature (similar to sunlight).

It is used for daylight-dependent constant light control, to control luminaires, lighting systems, Venetian blinds and canvas blinds, and to control light intensity and sun protection hoods to avoid unnecessary heating-up of rooms. It is used in greenhouses, storage halls, industrial halls, workshops, corridors, residential and commercial buildings.

**DHKF**  
Connecting head,  
pluggable



**TECHNICAL DATA**

Power supply:	24 V AC (±20%); 15...36 V DC for U variant 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ±0.3 V
Working resistance:	$R_a \text{ (ohm)} = (U_b - 14 \text{ V}) / 0.02 \text{ A}$ for I variant
Load resistance:	$R_L > 5 \text{ kOhm}$ for U variant
Power consumption:	< 1 W at 24 V DC; < 2 VA at 24 V AC
Sensor:	light sensor (see beginning of this chapter)
Measuring ranges:	<b>multi-range switching</b> (via DIP switches) <b>0...500 Lux / 1 kLux / 2 kLux / 5 kLux / 20 kLux / 60 kLux</b> (optional other individual measuring ranges, e. g. 100 kLux)
Output:	4...20 mA or 0-10 V
Deviation:	typically < 5 % of final value
Ambient temperature:	-30...+70 °C
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016)
Housing dimensions:	72 x 64 x 37.8 mm (Tyr 1)
Electrical connection:	2- or 3-wire (see connecting diagram), 0.14 - 1.5 mm <sup>2</sup> , via terminal screws
Cable connection:	<b>cable gland</b> , plastic (M 16 x 1.5; with strain relief, exchangeable, inner diameter 10.4 mm) <b>or</b> <b>M12 connector</b> according to DIN EN 61076-2-101 (optional on request)
Connecting cable:	PVC, LiYY, 4 x 0.14 mm <sup>2</sup> , cable length (KL) = approx. 2 m
Connecting head:	made of plastic, material polycarbonate (PC), colour white, <b>pluggable</b> , Ø = approx. 35 mm, H = approx. 29 mm
Mounting (sensor):	in the suspended ceiling, ceiling cut-out Ø = 30 mm, cover Ø = < 35 mm
Protection type:	<b>IP 67</b> (according to EN 60529) Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1) <b>IP 30</b> (according to EN 60529) Sensor in the built-in state
Protection class:	III (according to EN 60730)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, EMC directive 2014 / 30 / EU

Measuring ranges (adjustable)	DIP 1	DIP 2	DIP 3
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... <b>20 kLux</b> (default)	OFF	OFF	<b>ON</b>
0... 60 kLux	<b>ON</b>	OFF	<b>ON</b>

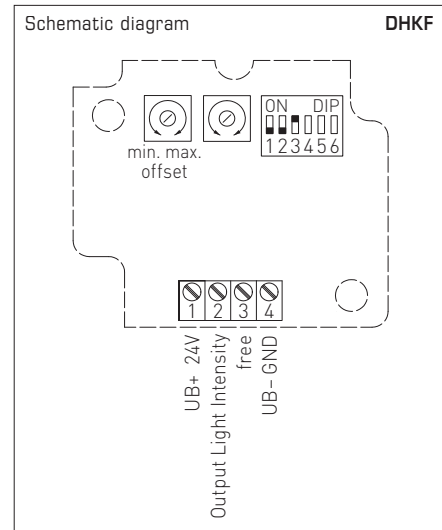
Note: **DIP 4, 5, 6** are not assigned!

**Connecting diagram DHKF-U**

1	UB+ supply voltage 24V AC/DC
2	Output light intensity 0-10V
3	free
4	UB- GND

**Connecting diagram DHKF-I**

1	UB+ supply voltage 24V DC
2	Output light intensity 4...20mA





S+S REGELTECHNIK

PHOTASGARD® DHKF

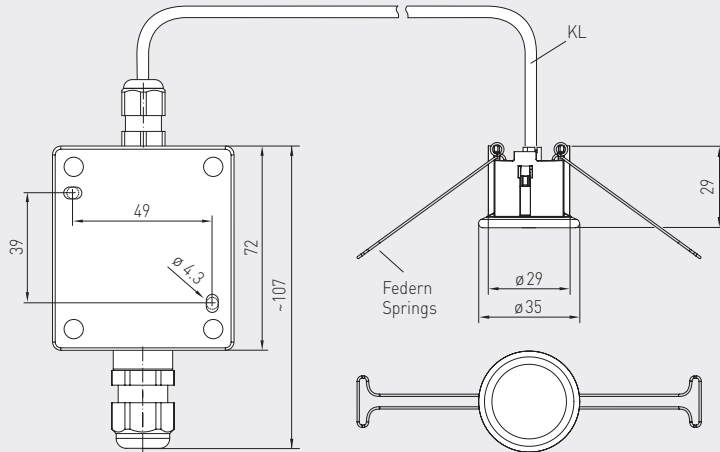
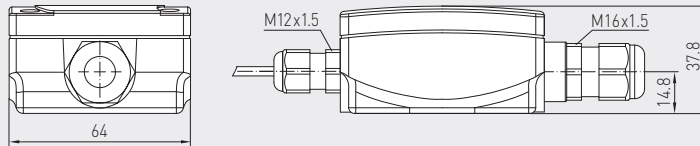
In-ceiling light intensity sensors,  
with multi-range switching  
and active output



Dimensional drawing

DHKF

DHKF



M12 connector  
(optional on request)



PHOTASGARD® DHKF In-ceiling light intensity sensors

Type / WG01	Measuring Range Light Intensity (adjustable)	Output Light Intensity	Item No.	Price
<b>DHKF</b>				
DHKF I	0...500 Lux / 1 / 2 / 5 / 20 / 60 kLux	4 ... 20 mA	1601-6122-1000-000	<b>148,21 €</b>
DHKF U	0...500 Lux / 1 / 2 / 5 / 20 / 60 kLux	0-10 V	1601-6121-1000-000	<b>148,21 €</b>
Extra charge:	Other individual measuring ranges optional, e. g. 100 kLux		on request	
Optional:	Cable connection with <b>M12 connector</b> according to DIN EN 61076-2-101		on request	