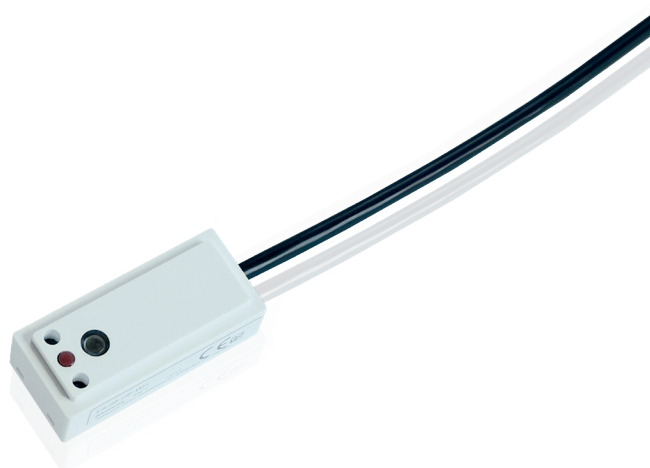


## Technical Data / Instruction Manual

### LS-05-HF-WH

### Article no. 80085064

### Digital Light Sensor with integrated HF Motion Sensor



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## 1. Notes on documentation

These instructions are intended for qualified personnel who are familiar with the assembly, installation and operation of the ISYGLT system. It is essential that you read these operating instructions through before commissioning and keep them accessible for further use.

SEEBACHER cannot accept any liability for damage or malfunctions resulting from failure to observe these instructions.

### 1.1. Retention of documents

These instructions and all other applicable documents are part of the product. They must be handed over to the device operator. The operator will store the documents so that they can be made available if necessary.

### 1.2. Symbols used

Observe the following safety and other instructions in the manual:



Handling instruction

The hand indicates that you should carry out an act.



Danger!

Immediate danger to life!



Attention!

General notes, useful information and special features

## 2. Safety instructions



Observe the following general safety instructions when installing and commissioning the device:

Assembly and installation of the ISYGLT module may only be carried out by a qualified electrician. Other activities in connection with the ISYGLT module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYGLT module may only be carried out by trained staff.

Observe the electrical installation regulations of the country in which the device is installed and operated as well as its national accident prevention regulations. In addition, observe internal company regulations (work, operating and safety regulations).



Before working on the ISYGLT module system, it must be disconnected from the power supply and secured against being switched on again. After completion of the assembly, installation and maintenance work, an electrical check must be carried out! Check all protective conductor connections and the voltages at all connection plugs as well as at each individual module slot.

### 2.1. Intended usage

The module is exclusively suitable for regulation (control) in conjunction with ISYGLT system components. Any other use is not intended. The limit values stated in the technical data must not be exceeded under any circumstances. This applies in particular to the permissible ambient temperature range and the permissible IP protection type. For applications with a higher required IP protection type, the ISYGLT module must be installed in a housing or a cabinet with a higher IP protection type.

### 2.2. Predictable mishandling

The module must not be used in the following cases in particular:

- explosive area

When operating in explosive areas, sparking can lead to deflagration, fire or explosions.

### 2.3. Safe handling

This module corresponds to the state of the art and the recognised safety regulations. Each device is tested for function and safety before delivery.

Only operate this module in perfect condition in accordance with the operating instructions, the applicable regulations and directives of the country in which the device is installed and operated, and the applicable safety and accident prevention regulations.

The module is intended for installation in luminaires or profiles. It can be mounted in any position, but care must be taken to ensure a useful detection direction of the light. Extreme environmental conditions impair the function of the product.

- Protect module from shocks
- Use module indoors only
- Protect module from humidity

In addition to these safety instructions, you must also observe the special safety instructions listed in the individual chapters for the individual acts.

### 2.4. Qualification of staff

Assembly, commissioning, operation, maintenance, decommissioning and disposal may only be carried out by qualified staff. Work on electrical parts may only be carried out by a trained electrician in accordance with the applicable regulations and directives. Other activities in connection with the ISYGLT module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYGLT module may only be carried out by trained staff.

### 2.5. Changes to the product

Unauthorized modifications to the ISYGLT module which are not described in this or the other applicable instructions can lead to malfunctions and are prohibited for safety reasons.

### 2.6. Use of spare parts and additional equipment

The module may be damaged if unsuitable spare parts and additional equipment are used. Only use original spare parts and additional equipment from the manufacturer.

### 2.7. Liability notes

SEEBACHER accepts no liability or warranty whatsoever for damage and consequential damage caused by non-compliance with the technical regulations, instructions and recommendations. SEEBACHER shall not be liable for any costs or damage incurred by the user or third parties as a result of the use of this equipment, in particular improper use of the equipment, misuse or malfunction of the connection, malfunction of the equipment or connected devices.

SEEBACHER accepts no liability for printing errors.

### 3. Warranty



We provide warranty within the framework of the statutory provisions. These are limited to the intended use of the module and refer to the repair or replacement of the ISYGLT module. Please send the device with an attached error description to our company address given below.

### 4. Declaration of Conformity



The valid declaration of conformity for the module can be requested from us free of charge by stating type and article no. as follows:

By phone: +49(0)8041/77776

By fax: +49(0)8041/77772

By mail: info@seebacher.de

### 5. Service address

#### Seebacher GmbH

Marktstrasse 57  
83646 Bad Tölz  
GERMANY

Phone: +49 (0) 80 41 / 77 77 6

Fax: +49 (0) 80 41 / 77 77 2

www.seebacher.de  
info@seebacher.de

### 6. Maintenance / Care / Disposal



The product is maintenance-free. It is sufficient from time to time to remove any dust deposits. This may only be done in a power-free state.

#### Disposal (European Union)

Do not dispose of product in household waste! Products with this symbol



must be disposed of according to the EU directive WEEE 2012/19/ EU on waste electrical and electronic equipment at the local collection points for waste electrical and electronic equipment!

### 7. Storage



The product must be stored in a dry place, protected from dirt and mechanical stress. After damp or dirty storage, the product may only be operated after a condition check by an authorised electrician.

### 8. Assembly



(Only by certified electrician!)

Mount the product only when it is in a power-free state!

Switch off the power supply, check that there is no voltage, secure against being switched on again!

Only use suitable equipment that meets the electrical requirements of the device!

Check that there are no loose parts in the product. If this is the case and the presence of such parts is not explicitly described, do not install or commission the product.

Only use suitable cables and fixing screws.

#### Assembly site

- The product is intended for installation in luminaires or profiles.

#### Assembly steps

(Read completely before assembly!)

- Mount the device in a way that the light sensor looks into the area to be measured. The sensor works with the reflection measurement method, so direct light irradiation by the luminaire must be avoided.
- Make the electrical connections according to the wiring diagram.
- Only after a complete connection and a visual test by a qualified electrician, the system may be put under voltage.

## 9. Product description

The LS-05-HF-xx is a digital light sensor with HF motion sensor for indoor applications. The sensor is connected directly to the ISYGLT BUS. The light sensor supplies a 16-bit brightness value that can be calibrated. This light value can be used to implement daylight controls, regulations and switching thresholds. The measured spectrum corresponds to the standardised V lambda curve ( $\lambda$ ).

The HF motion sensor is based on 4 internal, separately adjustable sensor units. The sensitivity as well as the minimum and maximum detection speed of each unit can be parameterised. Thus, individual adjustments to customer requirements and local conditions are possible. With one of the sensor units, the direction of movement (towards or away from the sensor) can also be evaluated for control functions.

### Connections

- miniature plug Molex 51021-0400, 4-pole cable to RJ10 incl. terminal adapter

### Design

- miniature plastic housing for installation in luminaires / profiles, further housing variants on request

## 10. Technical data

Type designation	LS-05-HF-WH (compact housing white)	LS-05-HF-BK (compact housing black)	LS-05-HF-SI (compact housing silver)
Article no.	80085064	80085065	80085066
Operating voltage	12V to 35V DC		
Current consumption	at 24V DC max. 18mA		
Subnet (RS-485)	max. 5.6V limitation by Z-diodes		
Dimensions (LxWxH)	46.4mm x 20.4mm x 14mm		
Weight	12g (sensor unit only)		
Measuring range illuminance	0 to 4500 lx (depending on mounting)		
HF sensor	SMR-313, frequency 24.150 to 24.250 GHz		
Connection	miniature plug Molex 51021-0400, 4-pole cable to RJ10 incl. terminal adapter		
Delivery scope	sensor, 250mm connection cable, RJ10 adapter		
Operating temperature ta	-20°C to +45°C		
Storage temperature	-25°C to +70°C		
Humidity	0-90% r. h. non condensing		
Protection class	IP20		
CE mark	yes		

## 10.1. Pin assignment

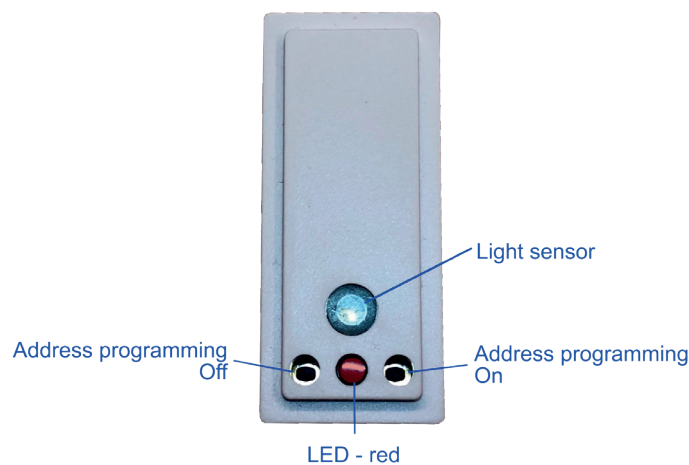
Terminal	Designation
+	Operating voltage
-	Operating voltage
A	Subnet BUS A
B	Subnet BUS B

## 10.2. Address setting

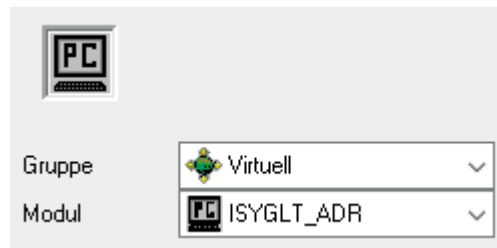
Due to its design, the sensor does not provide space for the usual DIP switch for address setting. At this sensor, the address is set via software parameterisation with the ISYGLT ProgramDesigner.

### Display and buttons at the sensor

	State	Meaning / Function
LED red	slow flashing	Sensor has no address
	fast flashing	Sensor is in programming mode
	Off	Sensor has a BUS address
	individual	In BUS operation, the LED is freely programmable, e.g. motion active.
Button right		Activating the programming mode, actuation with a small screwdriver or plastic, e.g. small cable tie
Button left		Deactivating the programming mode



In the ProgramDesigner (from version 8.00.13.1002 R095) the sensor must be created as a module. Additionally a virtual module „ISYGLT\_ADR“ is required.



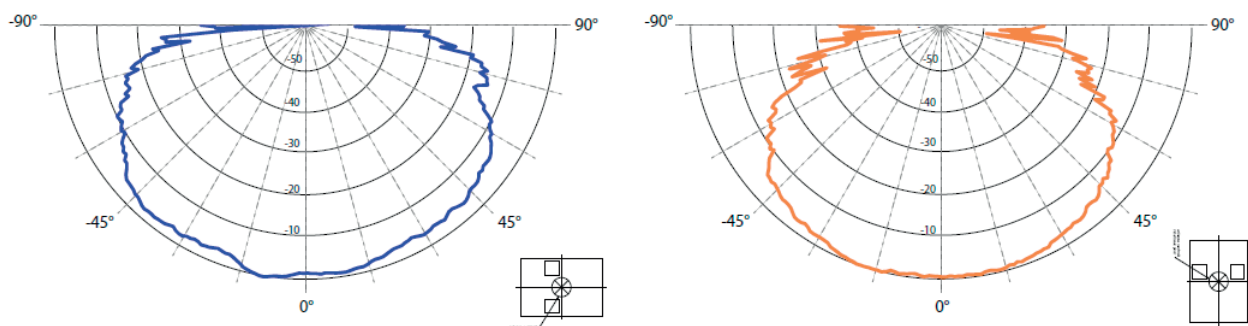
To set the BUS address, the desired address must be entered in the register **Parameter**.

Basiswerte			Parameter			Zurück zur Liste		
Einstellung		Beschreibung		Wert				
ADR 128 = keine Adresse								
		ISYGLT-ADR		16				

Now the sensor to be addressed must be put into addressing mode - the red LED now flashes quickly. Click on „Sende Parameter“ in the ProgramDesigner - the red LED on the LS-05-HF-xx turns off and the sensor now reports to the BUS.

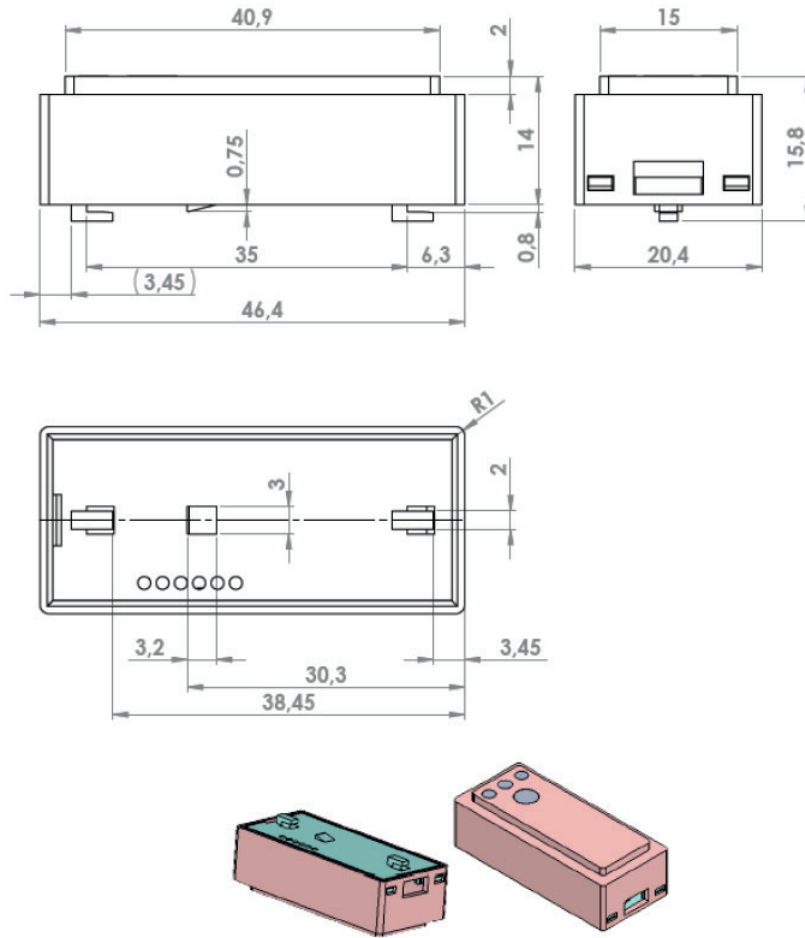
### 10.3. Detection range HF sensor

System Pattern SMR-313:



system pattern (-10dB)	azimuth	system_az	121	°
	elevation	system_el	111	°

View



## 11. Wiring diagram

