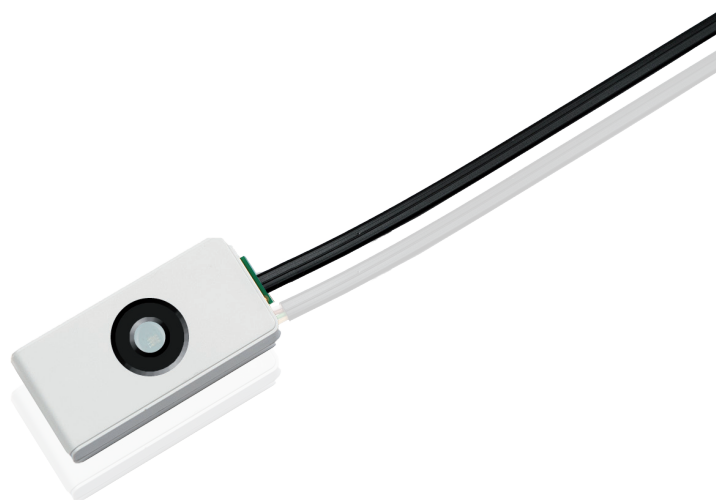


Technical Data / Instruction Manual

LS-04

Article no. 80085063

Digital Light and Colour Temperature 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 surface mounting, e.g. on a wall. 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!

The device may only be operated at voltages according to the technical data and loaded with the currents defined therein. Only use suitable equipment (system modules).

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 surface mounting.

Assembly steps

(Read completely before assembly!)

- Mount the device in any position, but in such a way that the incoming of light is not affected.
- 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-04 digital light and colour temperature sensor is used for measuring brightness and colour temperature and can be used to optimise „Human Centric Lighting“ (circadian lighting control) in schools or museums, at workplaces or in private homes. The sensor can be used to evaluate daylight and artificial light. Optionally, measurements can be recorded very conveniently in conjunction with IPMS visualisation. The measured brightness spectrum corresponds to the standardised V lambda curve. The colour temperature is output as CCT value in Kelvin. In addition, information about the X and Y CCT coordinates and the raw values of the individual sensor chips can be called up. Thanks to extensive parameter settings, the sensor can be individually adapted to local conditions. Transmission to the Master is carried out with 1 to 3 digital 16-bit values. Due to its compact design, the sensor can be universally integrated into the architecture.

Inputs

- none

Function displays

The function displays are intended for commissioning and service purposes and should be switched off during regular operation.

- 1 red LED, optionally OFF
 - Permanent lighting indicates „Voltage “ or „Overflow“ (parameterisable)
- 1 yellow LED, optionally OFF
 - Permanent lighting indicates that the BUS signal has been detected, but no valid address
 - Flashing indicates that the BUS signal has been detected with correct address

Connections

- 4-pole cable for the subnet (BUS A and B, RS-485) and the operating voltage (Ub, 0V)

Design

- miniature plastic housing

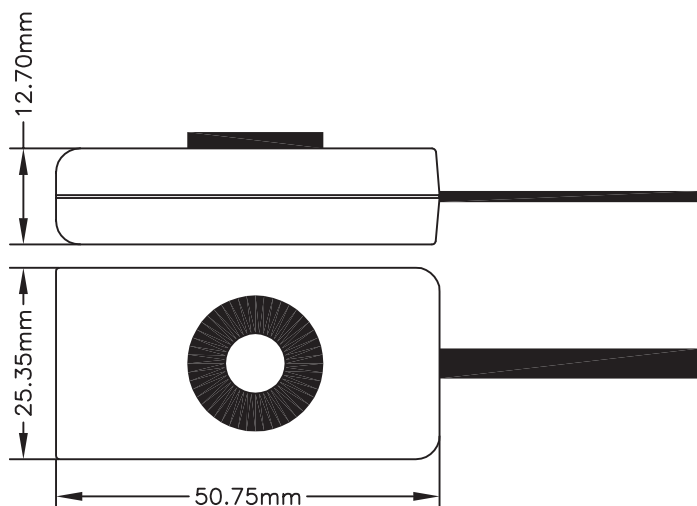
10. Technical data

Type designation	LS-04
Article no.	80085063
Operating voltage	12-35V DC
Current consumption	at 24V DC max. 20mA
Subnet (RS-485)	max. 5.6V limited by Z-diodes
Dimensions	LxWxD 50.8 x 25.3 x 12.7mm
Weight	16g
Connection	4-pole cable
Operating temperature	-10°C to +50°C
Storage temperature	-25°C to +70°C
Humidity	0-85% r. h. non condensing
Protection class	IP 20
CE mark	yes

10.1. Pin assignment

Connection	Designation	Option RJ10
Ub	Operating voltage	RJ10 pin 4 (yellow)
0V	Operating voltage	RJ10 pin 3 (green)
A	Subnet (BUS A, RS-485)	RJ10 pin 2 (brown)
B	Subnet (BUS B, RS-485)	RJ10 pin 1 (white)

View



11. Wiring diagram

