

Datasheet

FORTEC Integrated

IF440-00

Light Sensor

ZU-02-509



Version 1.0

18.09.2024

Table of Contents

1	Revision History	3
2	Overview	4
3	General Features	4
4	Absolute Maximum Ratings	4
5	Electrical Specification	4
6	APDS-9306-065 read and write address	5
7	Mechanical Specification	6
8	Connector Overview	7
8.1	CON1: Power and I ² C Connector	7
9	Ordering Information	7

1 Revision History

Date	Rev.No.	Description	Page
18.09.2024	1.0	Initial version	All

2 Overview

The Light Sensor with the " APDS-9306-065-Sensor" is suitable for adjustment the backlight to reduce energy consumption, prolong the life of the battery and ensure optimum visibility at different light conditions. The Light Sensor APDS-9306-065 is designed to detect spectral range in the same way as human eyes do.

3 General Features

- Power Supply: 1.7 to 3.6V
- Optimized to mimic the human eye's perception of ambient light
- Wide Lux Range from 0.01 to 18,000 Lux
- Light sensing or backlight sensing for DICOM Preset
- Interface: I²C

4 Absolute Maximum Ratings

Item	Symbol	Min.	Max.	Unit	Note
Supply Voltage	V _{IN}	-0.3	3.8	VDC	1, 2
Storage Temperature	T _{ST}	-30	+85	°C	-
Operating Temperature	T _{OP}	-25	+85	°C	-

Note (1): Within operating temperature range.

Note (2): Permanent damage to the device may occur if maximum values are exceeded.

5 Electrical Specification

Item	Symbol	Min.	Typ.	Max.	Unit	Remarks
Supply Voltage	V _{IN}	1.7	3.3	3.6	VDC	
Supply Current	I _{IN}	-	85	-	μA	
Serial-Clock Frequency	F _{SCL}	-	-	400	kHz	

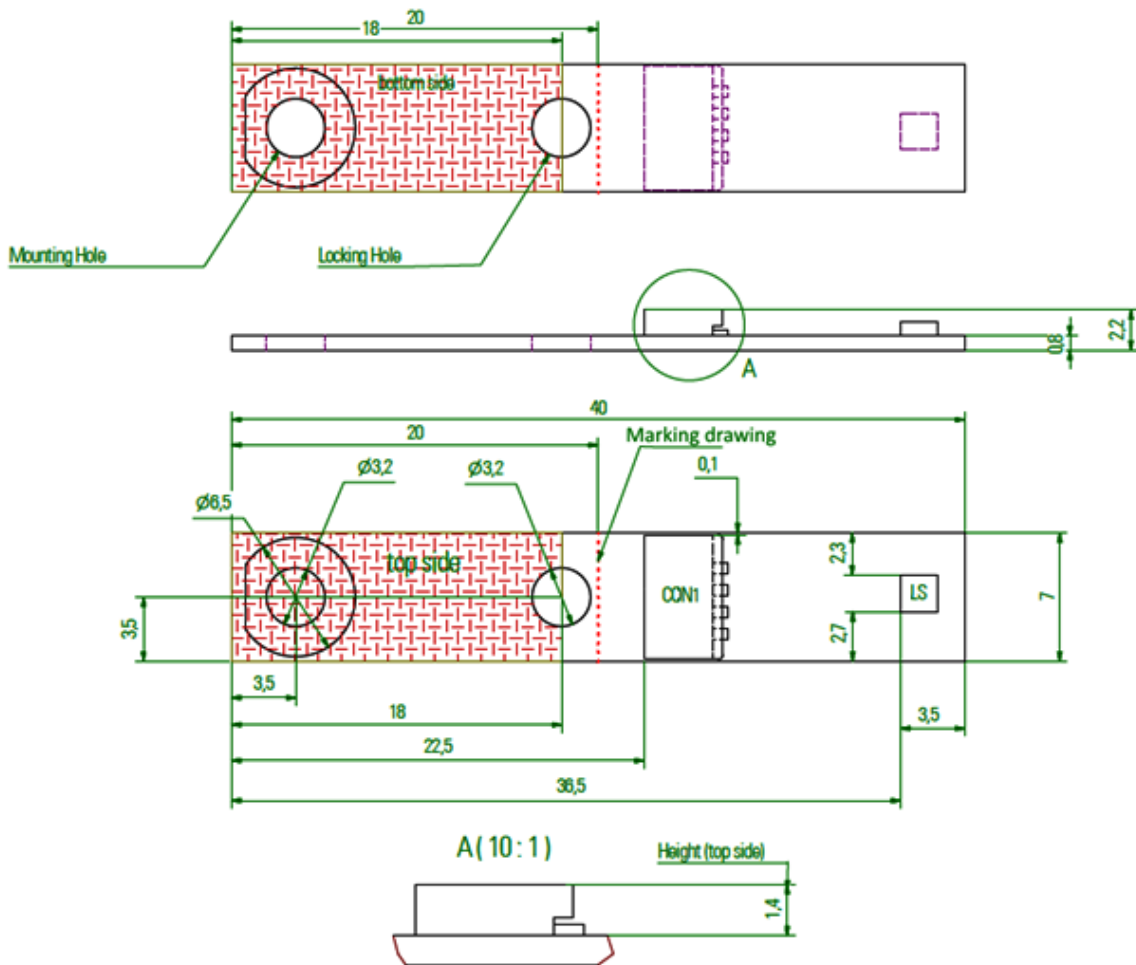
6 APDS-9306-065 read and write address

SLAVE ADDRESS FOR WRITING	SLAVE ADDRESS FOR READING
10100100	10100101

Note: The device supports a single slave address of 0X52 hex using 7-bit addressing protocol.

7 Mechanical Specification

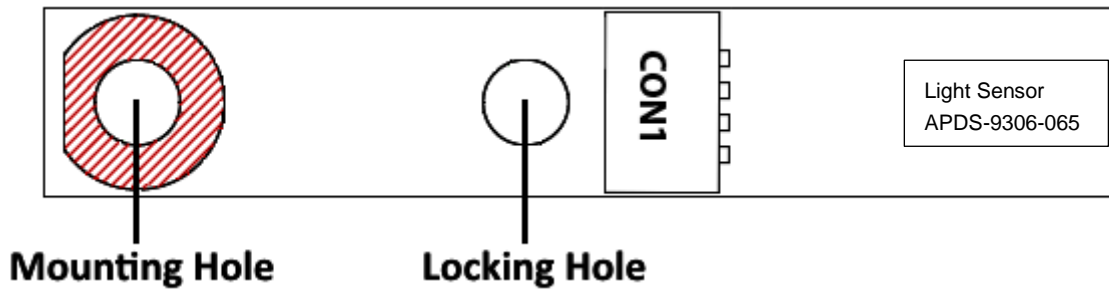
The Light Sensor Board is a PCB with a mounting hole and an additional locking hole to prevent the sensor PCB from rotating when the screw is fastened. Alternatively, the sensor PCB can be glued on a flat surface with double-sided adhesive tape. There are no components on the bottom side.



Item	Description	Remarks
Length	40 mm	± 0.2 mm
Width	7.0 mm	± 0.2 mm
Height (top side)	CON1	1.4 mm + 0.3 mm
	LS	0.6 mm + 0.3 mm
Height (PCB)	0.8 mm	± 0.1 mm
Height (bottom side)	0 mm	No components on bottom side, to be mounted on flat surface
Weight	5 g	

8 Connector Overview

Connector	Description	Type	Matching Part	Manufacturer
CON1	Power and I ² C Connector	BM04B-ACHSS-A-GAN-TF(LF)(SN)	ACHR-04V-A-S	JST



8.1 CON1: Power and I²C Connector

CON1: Power and I ² C Connector		
Pin	Signal	Description
1	V _{IN}	Power Supply Input
2	GND	Ground
3	SCL	Serial Clock
4	SDA	Serial Data

9 Ordering Information

Part Number	Description
ZU-02-509	IF440-00 Light Sensor
KA-30-786	Cable Prisma / IF4 12 800 mm

FORTEC

GROUP

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA. For more information please contact:

FORTEC

GROUP

FORTEC Elektronik AG | Augsburgener Straße 2b | 82110 Germering
+49 89 894450-0
info@fortecag.de | www.fortecag.de

FORTEC

INTEGRATED

FORTEC Integrated GmbH | Augsburgener Straße 2b | 82110 Germering
+49 89 894363-0
info@fortec-integrated.de | www.fortec-integrated.de

FORTEC

POWER

FORTEC Power GmbH | Lise-Meitner-Straße 3 | 64560 Riedstadt
+49 6158 8285-0
weborder@fortec-power.de | www.fortec-power.de

FORTEC

EGYPT

FORTEC Electronic Design and Solution Egypt SMLC | Linx Business Park
Unit B318 | Smart Village | Giza Governorate
info@fortec-integrated.de | www.fortec-integrated.de

Autronic Steuer- und Regeltechnik GmbH | Siemensstraße 17
74343 Sachsenheim
+49 7147 24-0
vertrieb@autronic.de | www.autronic.de

FORTEC

CZECH REPUBLIC

FORTEC Czech Republic s.r.o. | Přátelství 275 | 330 02 Dýšina
+49 89 894363-0
info@fortec.cz | www.fortec.cz

FORTEC

UNITED STATES

FORTEC United States, Corp. | 87 Raynor Avenue Unit 1 | Ronkonkoma
NY | 11779 | +1 631 5804360
info@fortec.us | www.fortec.us

FORTEC

SWITZERLAND

FORTEC Switzerland AG | Bahnhofstraße 3 | 5436 Würenlos
+41 44 7446111
info@fortec.ch | www.fortec.ch

FORTEC

UNITED KINGDOM

FORTEC Technology UK Ltd. | Osprey House | 1 Osprey Court
Hinchingsbrooke Business Park | Huntingdon | Cambridgeshire | PE29 6FN
+44 1480 411600
info@fortec.uk | www.fortec.uk