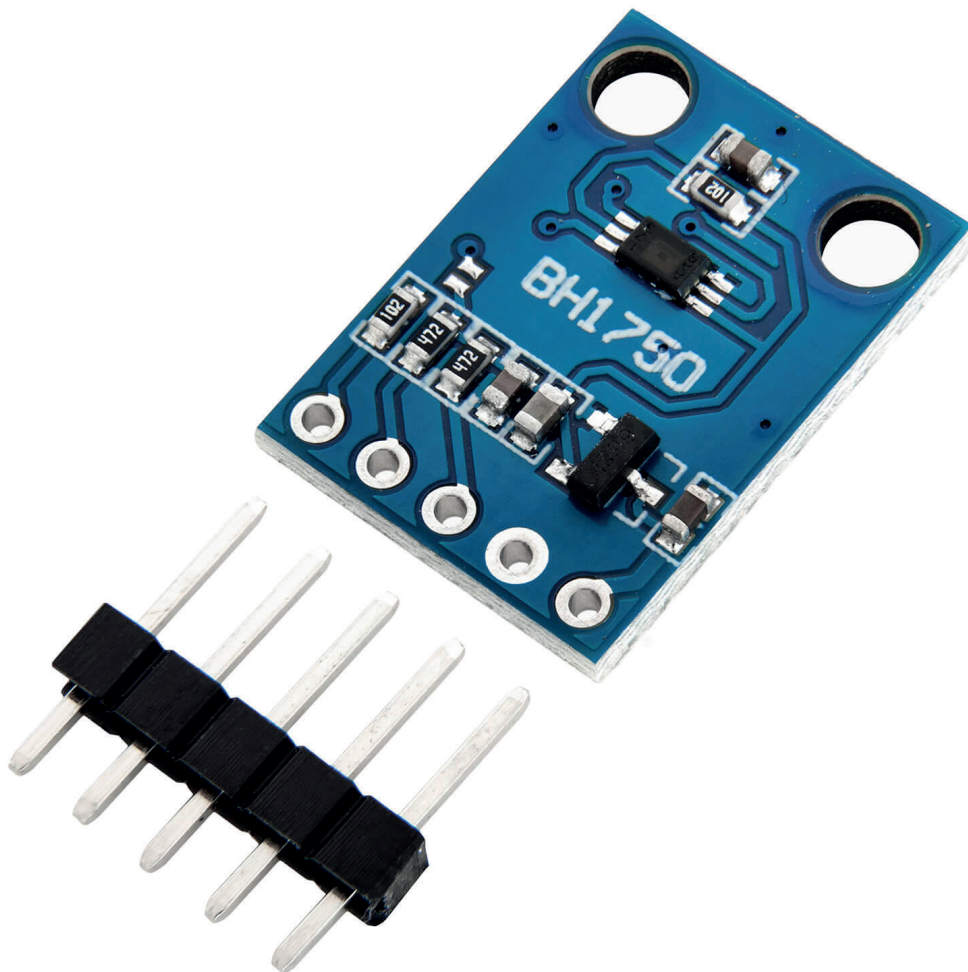


GY-302 BH1750 Licht Sensor Helligkeitssensor Datenblatt



Content:

[1. Specifications](#)

[2. Features](#)

[3. Pinout](#)

[4. Connection Diagram](#)

1. Specifications

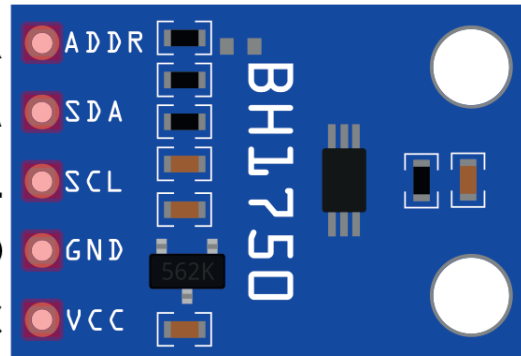
Operating Voltage Range:	From 3.3V to 5V DC
Max Operating Current:	190μA (max)
Sensor Resolution	16bits
Peak Wavelength	560nm
Measuring Range	From 1 to 65535lx
Accuracy	+/-20%
Interface	I2C (address 0x23 or 0x5C)
Operating Temperature	-40°C ~ 85°C
Dimensions	19mm x 14mm x 2mm [0.7in x 0.5in x 0.1in]

2. Features

- I2C bus Interface
- Spectral measurement is approximately human eye response
- Illuminance to Digital Converter
- Wide range and High resolution. (1 - 65535 lx)
- Low Current by power down function
- 50Hz / 60Hz Light noise reject-function
- 1.8V Logic input interface
- No need any external parts
- Light source dependency is little. (e.g. Incandescent Lamp, Fluorescent Lamp, Halogen Lamp, White LED, Sun Light)
- It is possible to select 2 different I2C slave-addresses
- Adjustable measurement result for influence of optical window (It is possible to detect min. 0.11 lx, max. 100000 lx by using this function)
- Small measurement variation (+/- 20%)
- The influence of infrared light is very small

3. Pinout

ADDRESS SELECT - ADDR
I2C SERIAL DATA LINE -SDA
I2C SERIAL CLOCK LINE - SCL
GROUND - GND
POWER SUPPLY - VCC



VCC - Power supply pin

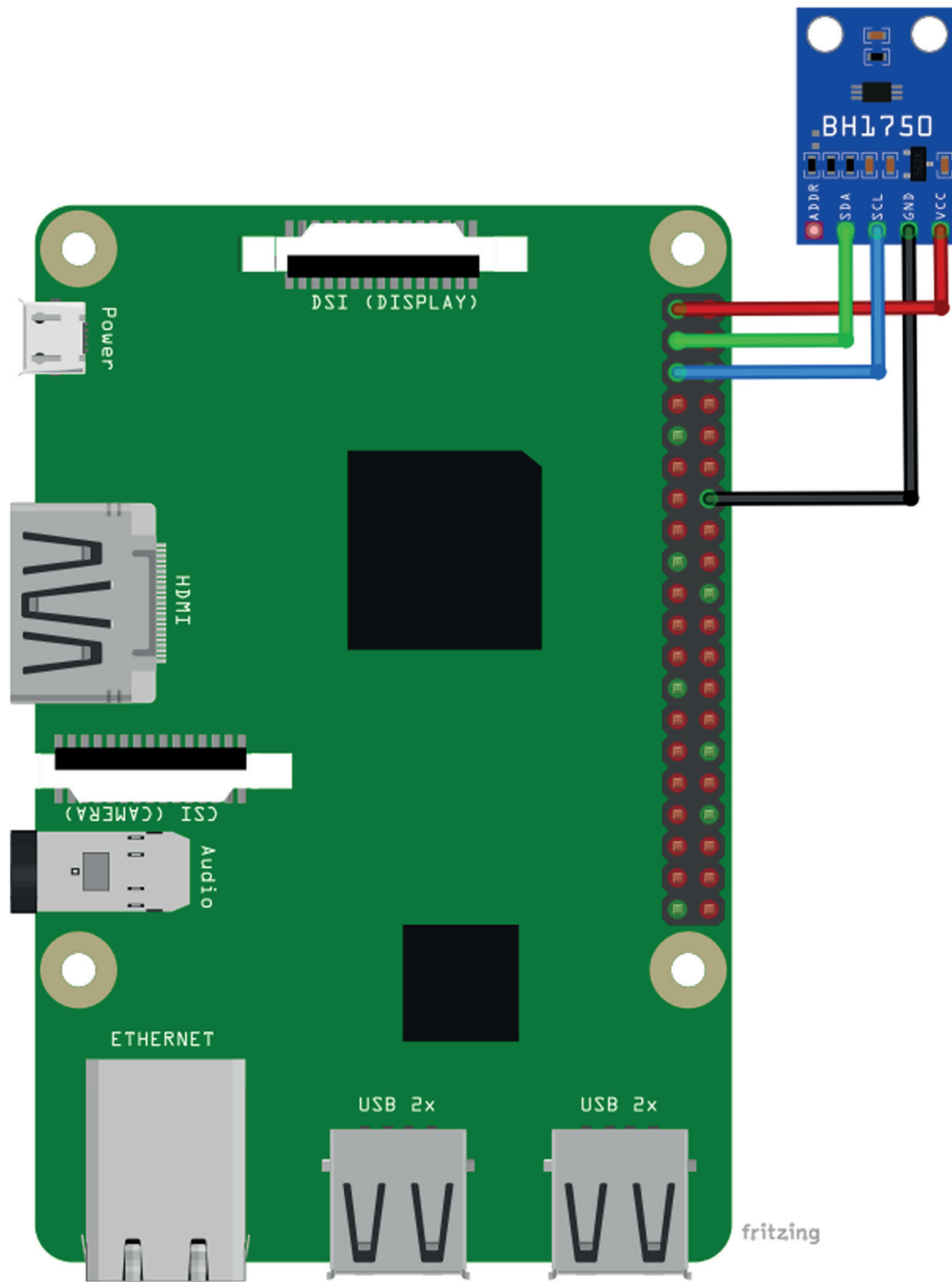
GND - Ground connection pin

SCL - I2C Serial clock line connection pin

SDA - I2C Serial data line connection pin

ADDR - Device address pin, used to select the address when more than one module is connected on the same I²C bus.

The ADDR pin is used to set the sensor I2C address. By default (if ADDR voltage less than $0.7 * VCC$) the sensor address will be 0x23. If it has voltage greater or equal to 0.7V voltage (connected to VCC) the sensor address will be 0x5C.



Module Pin	Microcontroller Pin	Physical Pin	Wire Color
VCC	3V3	1	Red Wire
SDA	GPIO2	3	Green Wire
SCL	GPIO3	5	Blue Wire
GND	GND	14	Black Wire

AZ-Delivery

Ihr Experte für Mikroelektronik!

For top quality microelectronics, we are your go to. We provide an array of application examples, full installation guides, eBooks, libraries, and all-round assistance. AZ-Delivery, your microelectronics expert!