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Infrared Thermometer - MLX90614

SEN-09570 ROHS ✓

★★★★★ 3

DESCRIPTION FEATURES DOCUMENTS

Melexis' MLX90614ESF-BAA is an infrared thermometer designed for non-contact temperature sensing. An internal 17-bit ADC and a powerful DSP contribute to the MLX90614's high accuracy and resolution. It has a huge number of applications including body temperature measurement and movement detection.

The MLX90614 provides two methods of output: PWM and SMBus (i.e. I2C, 1-Wire). The 10-bit PWM output provides a resolution of 0.14°C, while the I2C interface has a resolution of 0.02°C. The MLX90614 is factory calibrated in wide temperature ranges: -40 to 85°C for the ambient temperature and -70 to 382.2°C for the object temperature. The measured value is the average temperature of all objects in the Field Of View of the sensor. The MLX90614 offers a standard accuracy of 0.5°C around room temperatures.

This device comes in an industry standard TO-39 package. We're carrying the 3V version of this sensor.

Infrared Thermometer - MLX90614 Product Help and Resources

TUTORIALS VIDEOS SKILLS NEEDED



MLX90614 IR Thermometer Hookup Guide

OCTOBER 29, 2015

How to use the MLX90614 or our SparkFun IR Thermometer Evaluation Board to take temperatures remotely, over short distances.

COMMENTS 90 REVIEWS ★★★★★ 3

Customer Reviews

★★★★★ 5 out of 5

Based on 3 ratings:

| | | |
|--------|------------------------|---|
| 5 star | <div><div></div></div> | 3 |
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Currently viewing all customer reviews.

2 of 2 found this helpful:

★★★★★ Remarkably easy to use and accurate

about 3 years ago by **Member #71615** ✓ verified purchaser

I was able to get readings from the sensor over I2C in the course of a day and was able to confirm its accuracy with an ice cube and boiling water. I'm adding a Fresnel lens so it can measure temperature accurately from a distance. Gonna have a lot of fun with this little guy!

★★★★★ Exactly what I needed

about 3 years ago by **threadzless** ✓ verified purchaser

Wide temperature range, steady output under steady temperature conditions, and surprisingly resistant to spilling soda on the lense. Repeatedly.

★★★★★ Worked right out of the box.

about 2 years ago by **Ezrec** ✓ verified purchaser



Does exactly what it says on the tin.

Be aware that this is a 3v device, and not suitable for use with 5v Arduinos.

Also, the imaging angle is rather wide - make sure to account for that in your application.

In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

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