



Melexis Contact-less Infrared Sensor - MLX90614 3V

PRODUCT ID: 1747

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[DESCRIPTION](#)[TECHNICAL DETAILS](#)

DESCRIPTION

This cyber-tronic looking sensor hides a secret behind it's glimmering eye. Unlike most temperature sensors, this sensor measures infrared light bouncing off of remote objects so it can sense temperature *without* having to touch them physically. Simply point the sensor towards what you want to measure and it will detect the temperature by absorbing IR waves emitted. Because it doesn't have to touch the object it's measuring, it can sense a wider range of temperatures than most digital sensors: from -70°C to +380°C It takes the measurement over an 90-degree field of view so it can be handy for determining the average temperature of an area.

This sensor comes in an easy-to-use metal can. You can easily solder it or plug it into a breadboard. The four pins are used for power, ground, i2c clock and i2c data. There are two versions, one for 3V power and logic levels and one for 5V power and logic levels. **This item is the 3V version!** - good for use by most modern microcontrollers. You'll also want two 10K pull-up resistors for the I2C data lines, which we thoughtfully include.

Of course, we wouldn't just hand you a datasheet and wish you luck, [we've written an easy-to-use tutorial & Arduino library with an example that will have you up and running in 5 minutes.](#)

The code can also be ported to any microcontroller with i2c support.

TECHNICAL DETAILS

The datasheet for this part has pinouts, diagrams, dimension and even more details

- Factory calibrated
- -40°C to +125°C for sensor temperature
- -70°C to +380°C for object temperature
- $\pm 0.5^\circ\text{C}$ accuracy around room temperatures
- High accuracy of 0.5°C over wide temperature
- 90° Field of view
- 2.7 to 3.6V power
- I2C interface, 0x5A is the fixed 7-bit address



LEARN



[Using Melexis MLX90614 Non-Contact Sensors](#)
Tell temps without touching!



[DIY Thermal Light Painting - Heat Map Photography](#)
Make a low-budget, thermal camera for scientific analysis, or just some awesome cosplay.



[I2C addresses!](#)
I2C addresses from 0x00 to 0x7F (inclusive)

MAY WE ALSO SUGGEST...



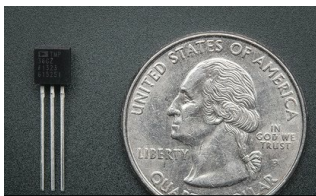
Contact-less Infrared



Melexis Contact-less



DS18B20 Digital



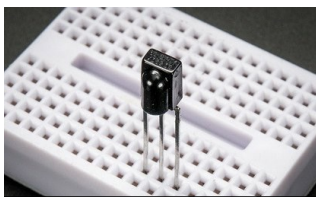
TMP36 - Analog



High Temp Waterproof



Waterproof DS18B20 Digital



IR (Infrared) Receiver



Heart Rate Educational

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"A good scientist is a person with original ideas. A good engineer is a person who makes a design that works with as few original ideas as possible. There are no prima donnas in engineering" - [Freeman Dyson](#)



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