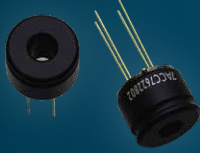


Digital infrared thermometer IC reading through ceramic surface

Lorem ipsum

MLX90617



The MLX90617 is an infrared thermometer that provides precise, non-contact temperature measurements. Its specialized wavelength filter enables accurate readings through specific ceramic surfaces.

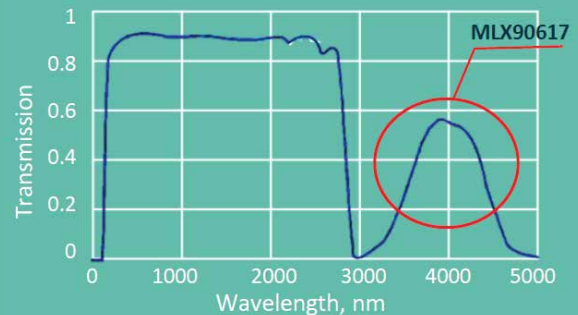


pot emissivity -----> processing -----> pot temperature calculation

Key features



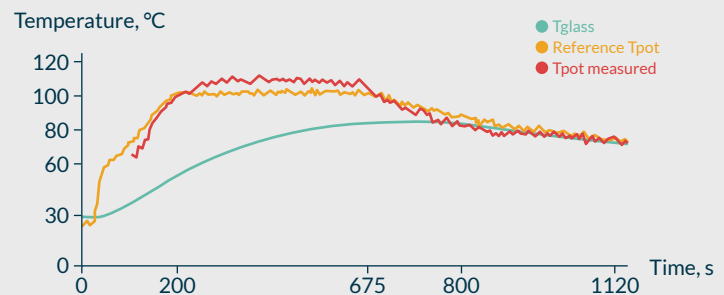
- ✓ Measure pot temperature through cooktop ceramic surface
- ✓ Factory calibrated in wide temperature range
 - -0°C...+125°C for sensor temperature
 - 70°C...+250°C for object temperature
- ✓ Narrow wavelength filter
- ✓ Single zone
- ✓ SMBus compatible digital interface
- ✓ Customizable PWM output for continuous reading in EMC difficult surroundings
- ✓ 5V supply voltage
- ✓ RoHS compliant TO39 package



The MLX90617 detect the radiations emitted by the bottom of a cooking pot transmitted through the ceramic surface. It also detects the energy coming from the ceramic surface itself.

How it works

To determine the cooking pot's temperature, the system measures the radiation emitted from the bottom of the pot. To ensure accuracy, it compensates for any radiation coming from the ceramic glass plate and the sensor itself. This is achieved by using two sensors, the MLX90617 and MLX90614. Additionally, the system calculates the pot's emissivity based on reflection measurements, potentially using a sensor like the MLX75308.



Measurement example: boiling water

Applications

- ✓ Cooking pots temperature monitoring through ceramic glass
 - Safety temperature monitoring
 - Automated recipe cooking



www.melexis.com/MLX90617

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