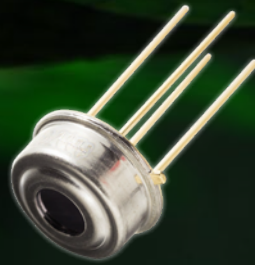


MLX90614

INFRARED

**TEMPERATURE
SENSOR**



Pit viper snakes have a cool heat sensing system to find prey in the dark. The pit is a special organ that senses body heats from animals and gives an infrared heat vision which accurately judges distance and size.

DIGITAL PLUG & PLAY INFRARED THERMOMETER

The Melexis MLX90614 is an innovative infrared thermometer for non-contact temperature measurements. The optics, IR sensitive thermopile detector chip, and the signal conditioning are integrated in the same TO-39 can. Coming factory calibrated MLX90614 thus provides a full plug & play solution for a variety of applications, with high accuracy and optimized noise performance in thermally challenging environments. Not surprisingly MLX90614 is the sensor of choice for numerous automotive, medical, consumer and industrial market leaders.

KEY FEATURES

- ✓ Standard Factory Calibration over wide temperature range: -40 to 125°C for ambient temperature, -70 to 380°C for object temperature
- ✓ $\pm 0.5^{\circ}\text{C}$ accuracy between 0-50°C, Medical version with $\pm 0.2^{\circ}\text{C}$ accuracy
- ✓ SMBus, PWM, and Thermal Relay Output modes
- ✓ Available in 3V and 5V Versions
- ✓ Multiple Field of View Options: 90°, 35°, 12°, 10°, 5°
- ✓ Gradient Compensation Version to improve measurement stability
- ✓ Automotive and consumer grade available
- ✓ Evaluation kit with ZIF socket available allowing fast testing and selection of the optimal sensor for your application

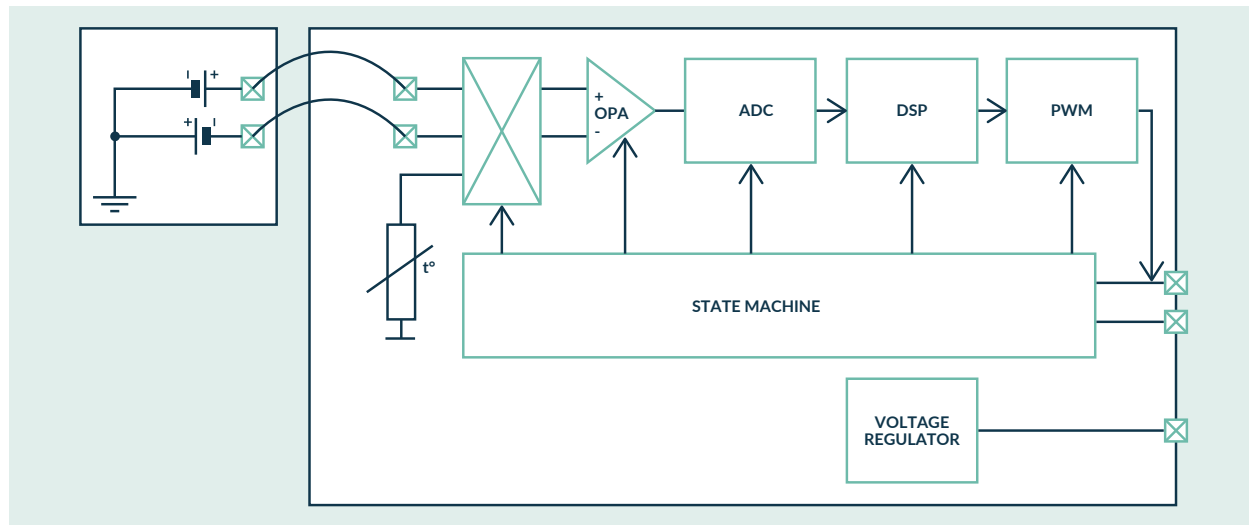


KEY APPLICATIONS

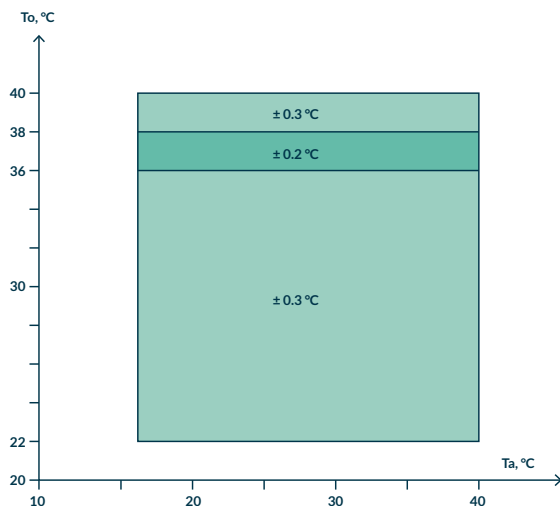
- ✓ Automotive, Commercial, Industrial, and Residential HVAC systems
- ✓ Healthcare (measuring body core temperature), Activity Tracking
- ✓ Home Appliances: Microwave Ovens, Cooking Stoves, Heaters, Hair Dryers
- ✓ Fire/Overheat Detection, Alarm Systems
- ✓ Handheld Thermometers



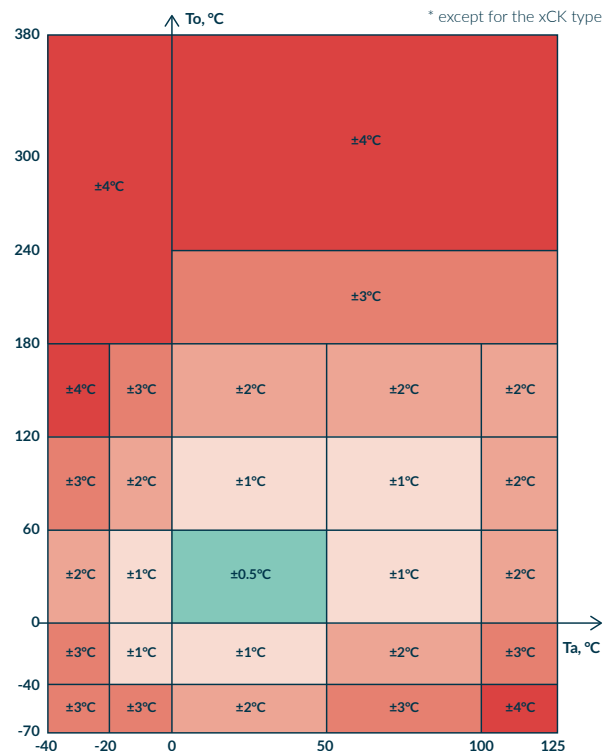
BLOCK DIAGRAM



MLX90614 MEDICAL TEMPERATURE ACCURACY



MLX90614 STANDARD TEMPERATURE ACCURACY*



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