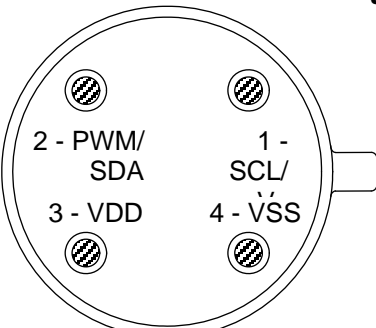
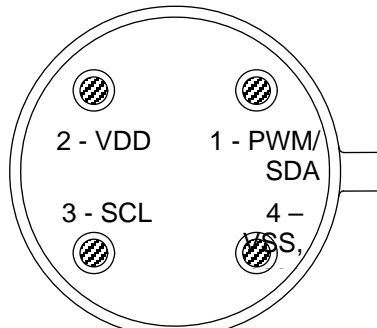


Introduction

The MLX90614 family and the MLX90615 infrared thermometers have very comparable characteristics. However, there are some differences one has to be mindful of when comparing them. This is a list of the most important difference.

Comparison MLX90614 / MLX90615	
MLX90614ESF	MLX90615ESG
package	
TO-39, 8.2mm can diameter (basic version)	TO-46, 4.7mm can diameter
Pinning not compatible	
 <p>Top view</p>	 <p>Top view</p>
Operating temperature range:	
-40°C to 125°C or -40°C to 85°C	-40°C to 85°C
Object temperature range	
-70°C to 380°C	-40°C to 115°C
Accuracy	
+/- 0.5°C at room temperature +/- 0.1°C for medical version	+/- 0.5°C at room temperature +/- 0.1°C at body temperature
Resolution	
0.02°C with SMBus 10 bit PWM from 0.01°C LSB internal	0.02°C with SMBus 10 bit PWM from 0.02°C LSB internal
Operating voltage	
5V and high voltage 3V with sleep mode internal Zener for higher voltage operation	3V with sleep mode Shunt regulator for higher voltage operation with external resistor
Standard Field of View options	
90°, 35°, 10°	100°
Internal digital filters	
Programmable FIR and IIR	Programmable IIR
Dual sensor option	
Yes	No
High thermal stability option	
Yes	No

MLX90614ESF	MLX90615ESG
Response time	
0.15s	0.5s
High stability option	
Yes	No
Factory default SMBus address	
5Ah	5Bh
PWM frequency	
7 bit programmable between 1Hz and 1KHz	Selectable 1 KHz or 10 Hz
Thermal relay option	
Yes	No
PWM, output type	
Push-Pull or Open Drain, 7mA sink current	Open Drain, 10mA sink current
Wake up command	
Low pulse on the SDA pin	Low pulse on the SCL pin
Wake up time	
80ms	50ms
ESD Sensitivity (AEC Q100 002)	
2KV	2KV
Programmable emissivity compensation	
Yes	Yes
EEPROM ECC	
Yes	No