

MEMS Thermal (IR* sensor) measures the surface temperature of objects without touching them when the thermopile element absorbs the amount of radiant energy from the object.

*IR: Infrared Ray

Low noise

Achieving the highest level of SNR* in the world *2

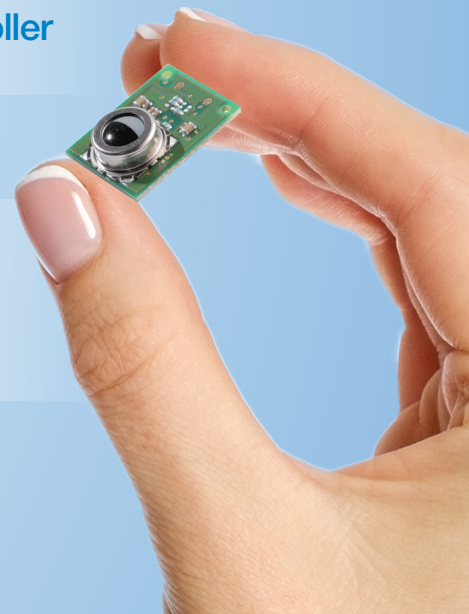
* SNR: Signal-to-Noise Ratio. Compares the level of a signal to the level of background noise
 *2 As of December 2017, according to OMRON research

Easy connection

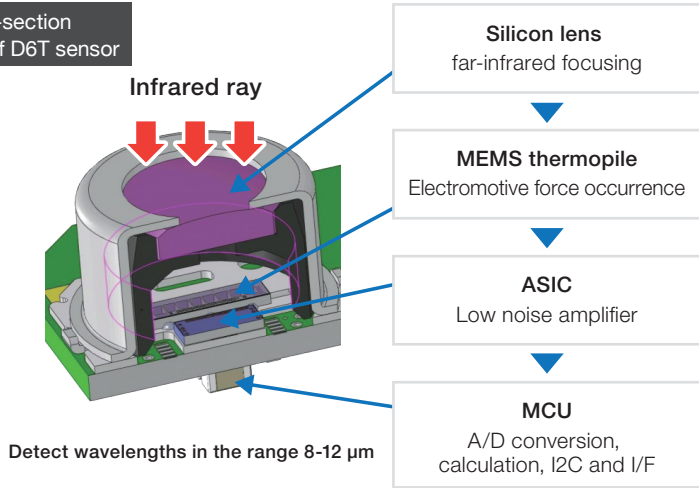
Converts sensor signal to digital temperature output allowing easy use of microcontroller

Compact size

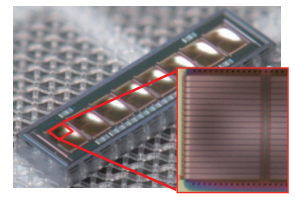
Space-saving design, well-suited for embedded applications



Cross-section view of D6T sensor



MEMS thermopile



Detection principle



The sensor utilizes the seebeck effect in which thermoelectric force is generated due to the temperature difference that occurs across the junction points of two different types of metal.

Human Detection

D6T series sensors can detect human presence by sensing changes in human body temperature with respect to the surrounding temperature.

