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APPLICATION NOTE INTRODUCTION
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Thermopile Detector Series with Digital Output

The **Excelitas** thermopile sensors are used for remote temperature sensing by the measurement of infrared (IR) radiation. They consist of a silicon (Si) based thermopile chip in a metal housing with IR transmissive filter. The Si-chip carries a series of thermoelements, forming a sensitive area covered by an IR absorbing material. The thermopile sensing principle allows for broadband IR measurements. These thermopile sensors are equipped with a MEMS state-of-the art sensing element and an optical filter that defines the sensitive spectral range of the sensor and at the same time serves as device window.

Until recently, all available detectors were analogue, i.e. they provide an analogue signal output. **Warsash Scientific** now offer the first thermopile detector series that, unlike previous generations, offers a digital signal output.

FEATURES AND BENEFITS

- Digital output sensor
- 17 Bit Tobj Output "Direct Link"
- 14 Bit Tamb Output "Direct Link"
- 3-pin TO-5 Housing
- Thermopile sensor with large absorber area
- High signal to noise ratio
- 5.5µm cut on IR filter
- Operating voltage down to 2.4V
- Low current consumption

APPLICATIONS

- High precision temperature sensing
- Ear thermometer
- Infrared Pyrometry

For more information, contact Warsash Scientific on +61 2 9319 0122 or sales@warsash.com.au or view the full [Application Note].