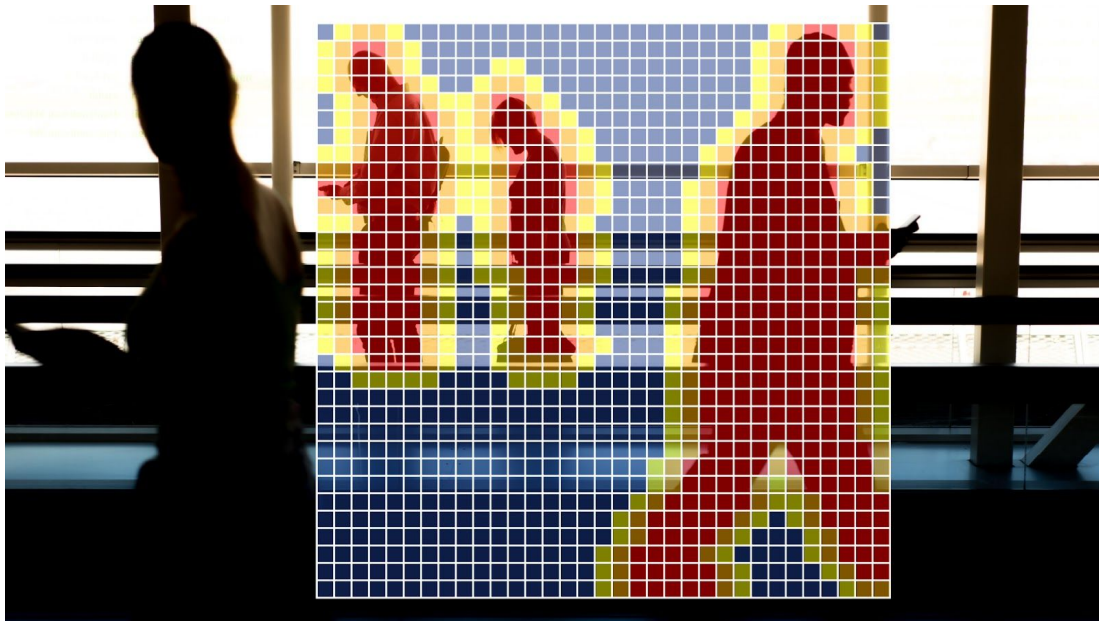


TeraRanger Evo Thermal

by TERABEE 



Monitor heat variations, detect movement and capture the unseen!
The thermographic addition to the Evo sensor family offers versatile performance in a compact and affordable design!

Key features

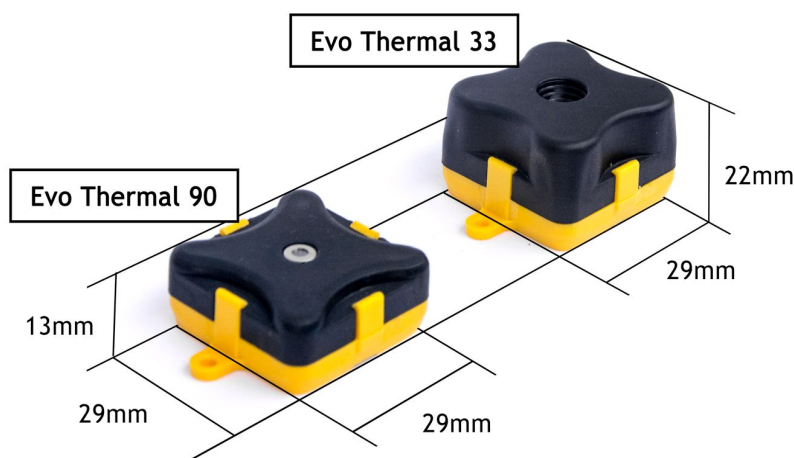
- 32x32 pixel thermal image
- Available in 2 versions: 90° and 33° Field-Of-View
- Small and lightweight design (from 7 grams)
- UART and USB interface. Other interfaces possible (RS485, Lora/Sigfox, Ethernet, CAN, etc.)
- Low power consumption
- Privacy protected, non-intrusive data collection
- Operates in a broad range of conditions - sunlight, darkness, poor visibility
- Free Graphical user interface available on PC



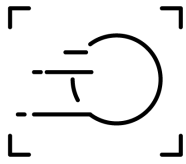
Technical Specifications

	Evo Thermal 90	Evo Thermal 33
Principle:	Infrared thermopile array	
Resolution:	32 x 32 pixels	
FoV:	90° x 90°	33° x 33°
Update Rate:	7Hz	14Hz
Temperature Range:	-20 °C to 670 °C	-20 °C to 1000 °C
Temperature Accuracy:	±2 °C for targets below 100 °C; 2% for targets above 100 °C	
NETD: (at 1Hz, 25 °C)	330mK (0.33 °C)	254mK (0.25 °C)
Range, specific to human body detection:	Up to 5m	Up to 13m
Temperature Compensation:	Automatic	
Supply Voltage:	5V DC ±5%	
Current consumption: (typical-maximum)	45mA - 75mA	
Operating temperature:	-10 °C to 65 °C	
Interfaces:	USB 2.0 Micro-B	
	UART, +3.3V level, 1500000,8,N,1.	
Connectors:	Single 9 pin Hirose DF13 (UART Blackboard)	
	Micro USB (USB Backboard)	
Weight:	7g (sensor) + 3g (backboard)	9g (sensor) + 3g (backboard)
Dimensions: (sensor + backboard)	Approx. 29x29x13mm	Approx. 29x29x22mm
Conformity:	RoHS, CE certified (pending)	

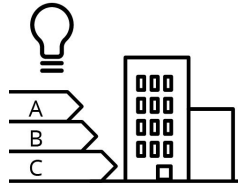
**Accuracy may vary depending on distance, target emissivity and ambient temperature.*



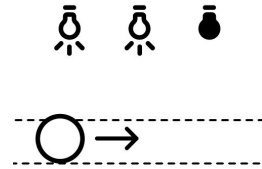
Applications



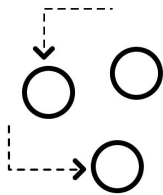
Heat source tracking, counting



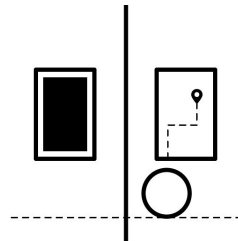
Building efficiency optimization



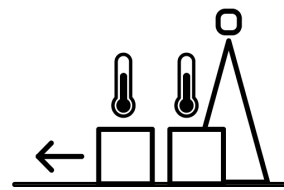
Adaptive lighting



Heat movement monitoring

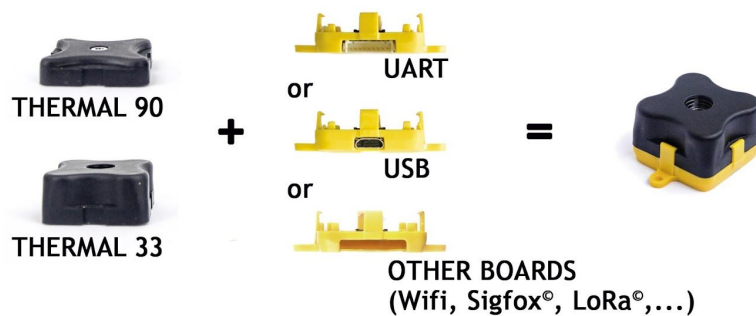


Responsive display advertising



Machine and process temperature monitoring

Customizable and Modular Evo Design



Evo Thermal sensors consist of a thermographic sensing device (black module, 7g or 9g) and a choice of backboard (yellow module, 3g), which simply plugs-in to provide the sensor with a communication link and power management capabilities. You simply choose the backboard that best suits your application and communication protocol! **USB and UART backboards are available.** Other Backboards with industry standard interfaces and protocols can also be made to support your application. Contact us at teraranger@terabee.com to discuss your project requirements.

The TeraRanger Evo Thermal sensors can be purchased via our online store at:

<http://www.teraranger.com/product/teraranger-evo-thermal/>