



# TEMPERATURE

The Thelma Biotel temperature sensor is a low-power and versatile platform for temperature measurements alone, or in combination with other suitable sensors. It can be measured over a wide span from -20 to 150 °C and can be made to present high resolution in any range of interest. The transmitter is produced in all transmitter sizes and with a wide range of battery packs, allowing optimization in size and operational life.

## FEATURES

- Temperature sensor accuracy of 0.1 °C
- Available in all transmitter sizes 6, 7, 9, 13 and 16
- Long operational lifetime ~ 4 months - 10 years
- Can be combined with other sensor options

## SENSOR

The onboard temperature sensor measures temperature with high accuracy of 0.1 °C. As a default, the temperature is encoded using the parameters as shown in the table below. User-defined maximum and minimum may be implemented for temperature measurements beyond the standard bounds.

T <sub>min</sub> [°C]	T <sub>max</sub> [°C]	Accuracy [°C]
-20	150	0.1

Conversion from transmitted value to temperature is done using the following calculation:

$$\text{temperature [°C]} = (\text{transm.value} \times \text{resolution}) + T_{\text{min}}$$

## APPLICATIONS

The temperature sensor is highly applicable alone or in combination with other sensor options. The temperature sensor provides the tagged animal's experienced temperature. This information allows you to track mammal predation, look at temperature differences in diverse water masses and depths where the animal resides. One version of the temperature sensor can measure the accumulation of day-degrees over time as a direct output.

## SPECIFICATIONS

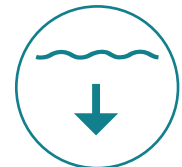
### Standard sensor

Min temperature:	-20 °C
Max temperature:	150 °C
Accuracy:	0.1 °C
Max survival depth:	500 m

## COMBINATIONS



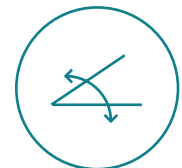
MORTALITY



DEPTH



ACTIVITY



TILT

