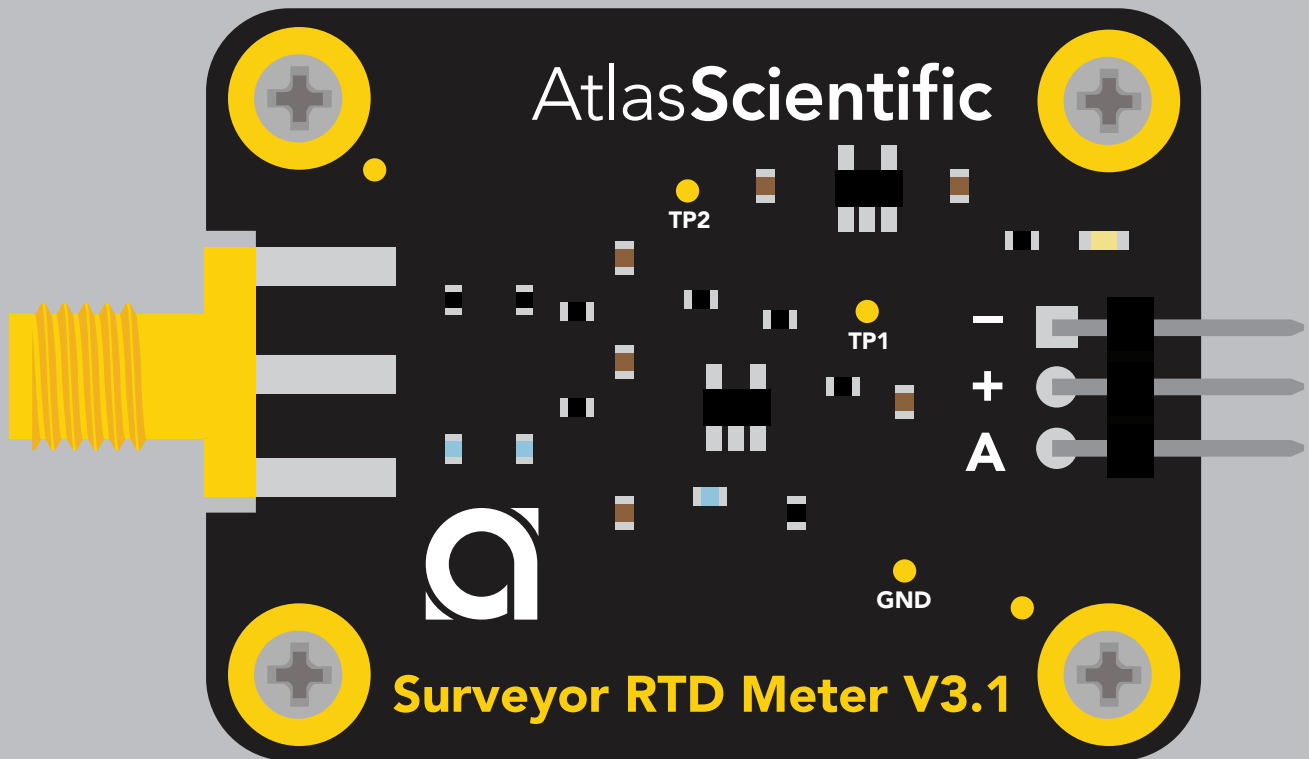


# Surveyor<sup>TM</sup>

## Analog Temperature Sensor / Meter



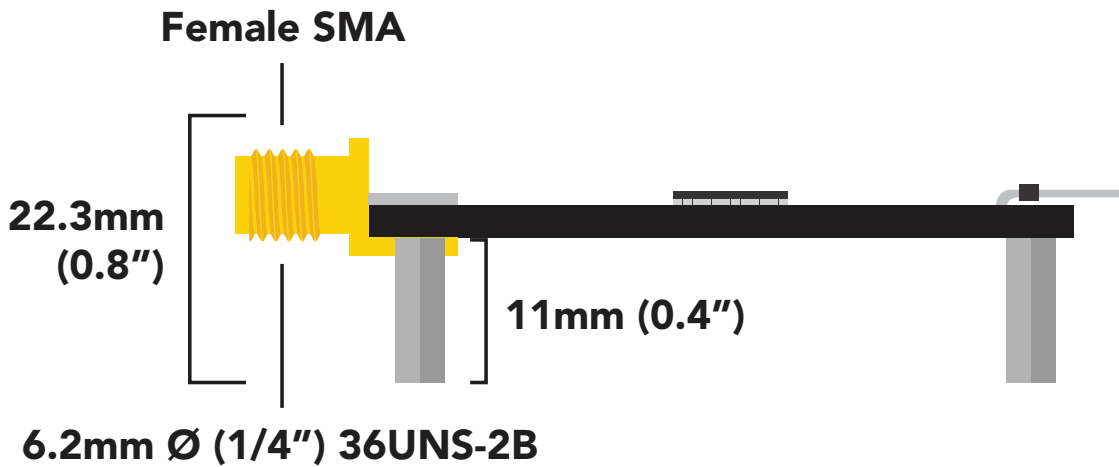
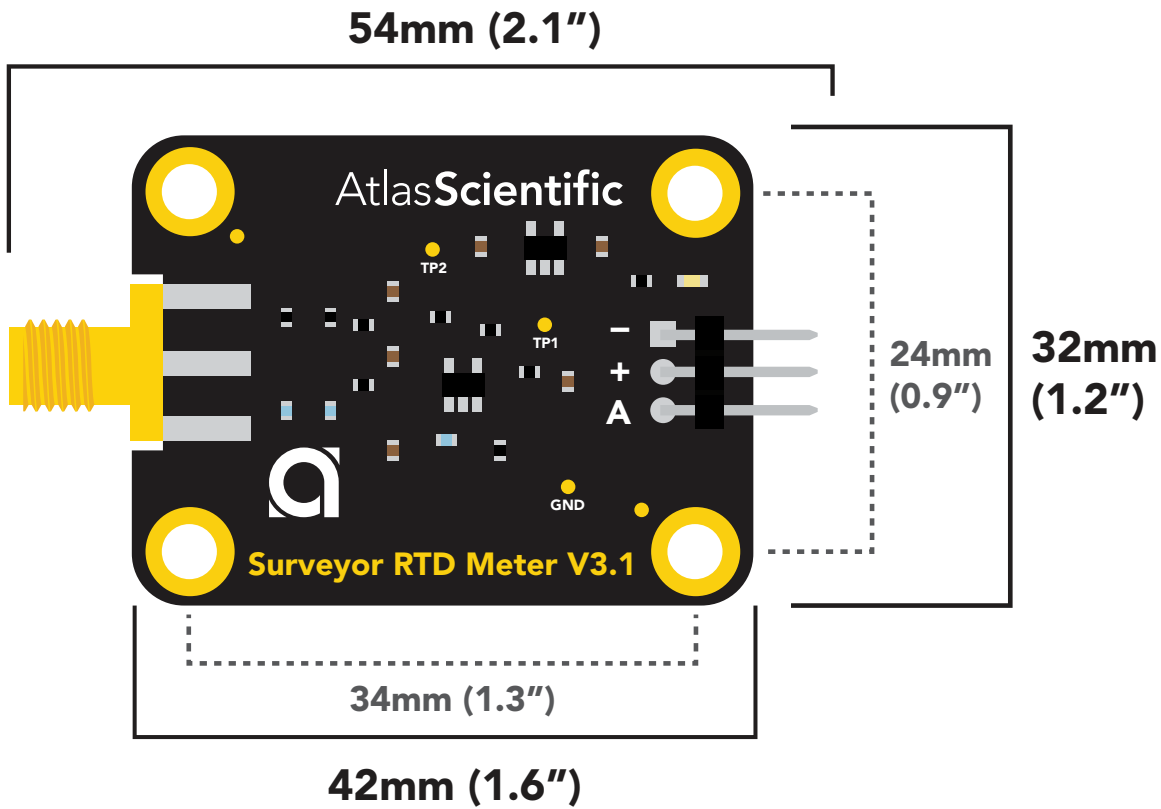
### Range

-100°C to 220°C



PATENT PROTECTED

# Surveyor dimensions



## Power consumption

**5V = 0.9mA**  
**3.3V = 0.9mA**

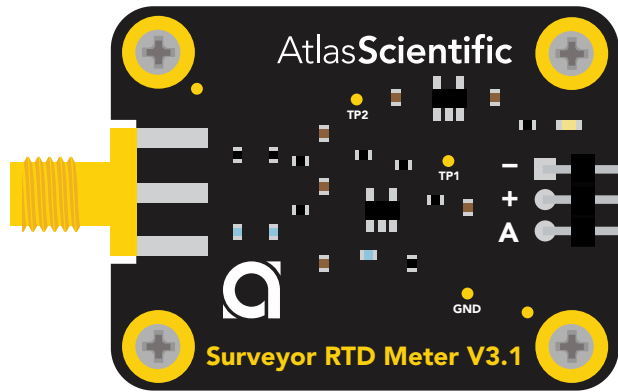
## Absolute max ratings

Parameter	MIN	TYP	MAX
Storage temperature	-65 °C		125 °C
Operational temperature	-40 °C	25 °C	50 °C
VCC	3.3V	5V	5.5V

The Atlas Scientific Surveyor™ Analog Temperature Sensor / Meter is a low-cost solution specifically designed for

- **Students / education**
- **Proof of concept designs**
- **Moderate accuracy applications**

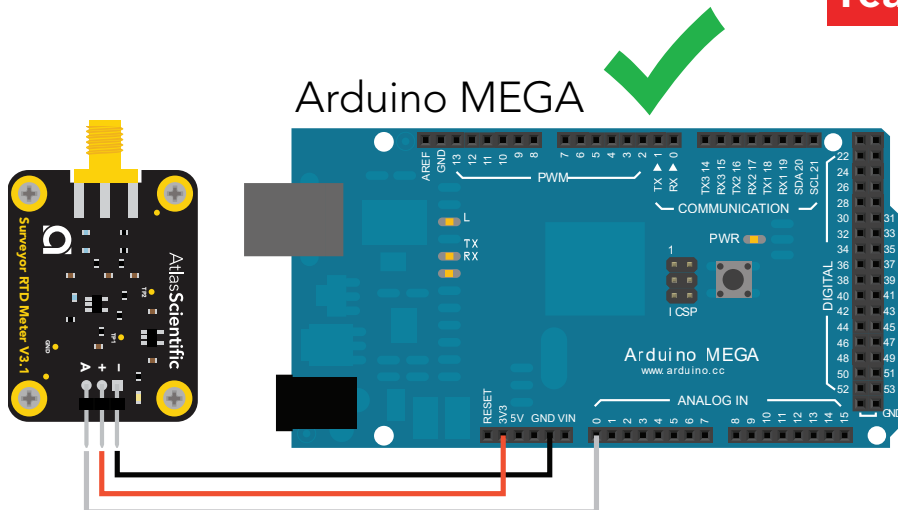
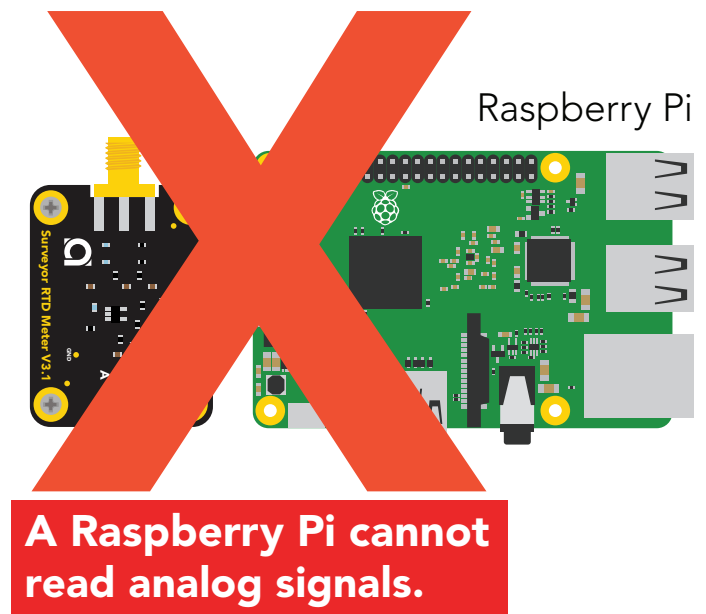
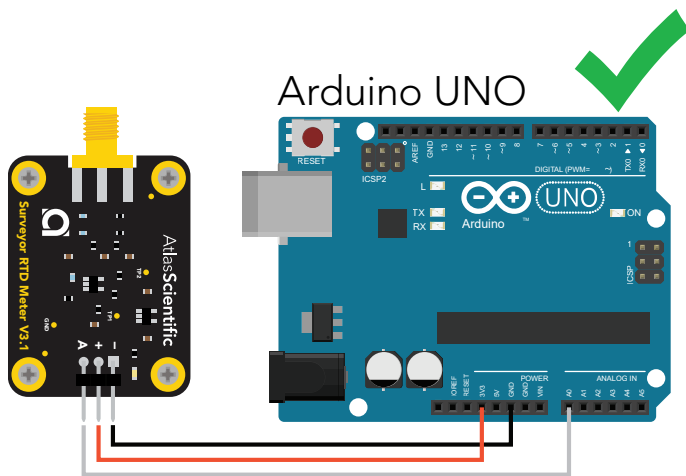
## Connection pins



Connect - to GND

Connect + to 3.3V or 5V

Connect to analog pin / ADC

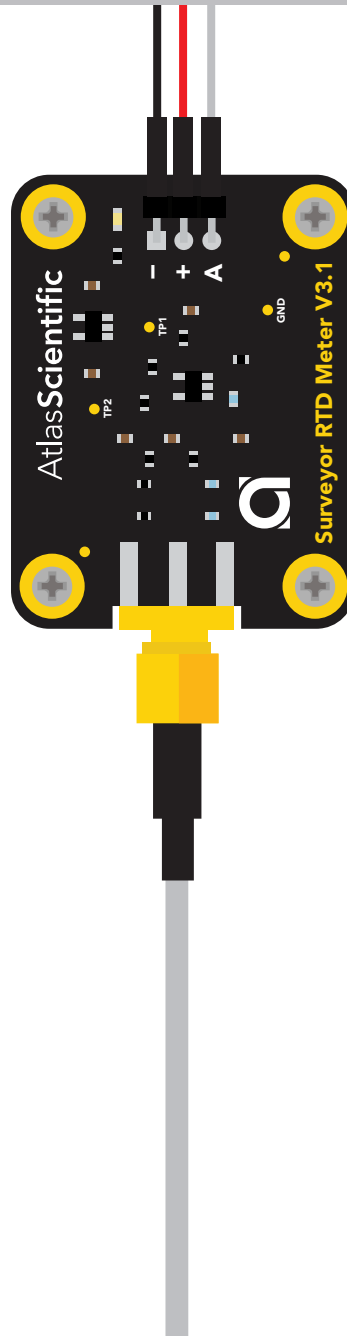
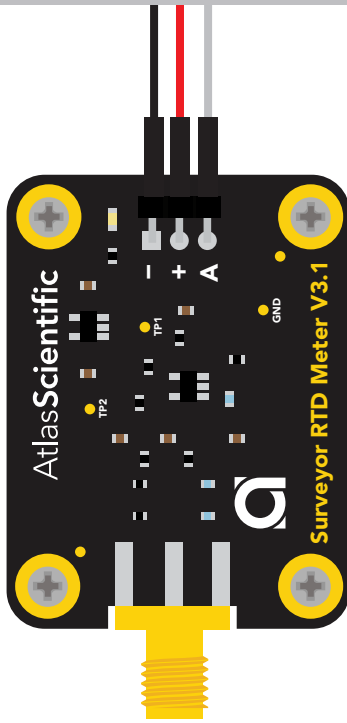


# Converting the analog signal into temperature

The Atlas Scientific Surveyor™ Analog RTD Sensor / Meter will output a voltage from 0V to 3.00V.

## Equation to convert voltage to temperature

$$^{\circ}\text{C} = (V - 1.058) / 0.009$$

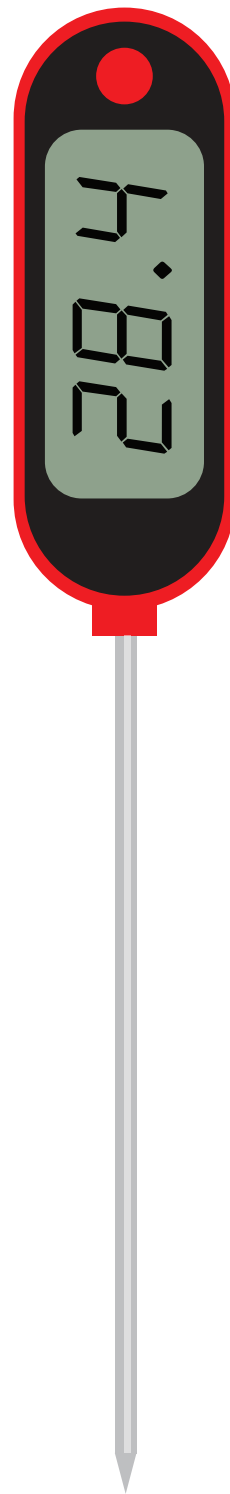
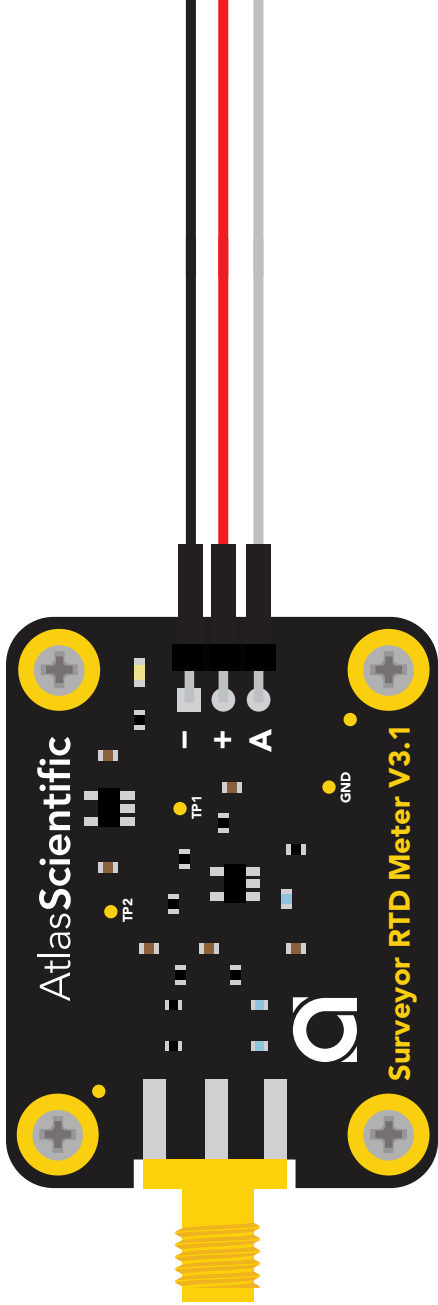


Tolerance +/- 1°C

**Temp Volts**

<b>100</b>	1.958
<b>25</b>	1.283
<b>0</b>	1.058
<b>-50</b>	0.608

**No probe = Unpredictable**



**Accuracy**  
+/- 0.5 °C

**Life expectancy**  
~10 years

**Accuracy**  
+/- 1 °C

**Life expectancy**  
~ 1 year