

Speed of Sound

From the user, an air temperature (T) is given. Before calculating the speed of sound, the air temperature value must be converted to Kelvin (K).

To convert the air temperature to Kelvin, see the link below:

[Temperature Conversion](#)

Just a side note before calculating the speed of sound, in the Earth's atmosphere, the chief factor affecting the speed of sound is the temperature.

So, the speed of sound (v_{sound}) can be calculated using the formula below:

$$v_{sound} = 643.855 \times \left(\frac{T}{273.15}\right)^{0.5}$$

The answer is given in knots, to convert knots to another speed unit, see the link below:

[Wind Speed Conversion](#)