AIR PROPERTIES FOR HP PRIME

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This program determines some physical and termodinamical properties of air at different altitudes. The program use the international units system (SI) and consider dry air.

Altitude range permited is from -5,000 to 20,000 meters; in this range air is considered ideal gas.

Properties reported are:

a) Temperature [=] °C
b) Pressure [=] kPa
c) Density [=] kg/m^3
d) Gravity [=] m/s^2
e) Sound speed [=] m/s
f) Dinamic viscosity [=] kg/m·s
g) Cinematic viscosity [=] m^2/s
h) Thermal conductivity [=] W/m·K
i) Thermal expansion [=] K^{-1}
j) Isobaric Heat Capacity [=] J/kg·K
k) Isochoric Heat Capacity [=] J/kg·K
l) Specific Heat Ratio [=] -
m) Thermal diffusivity [=] (m^2/s)
n) Prandtl number [=] -

References:

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