



Library LibHuAirProp of Humid Air Psychrometric and Transport Property Functions, I-P and SI

For Real Moist Air, Dry Air, Steam, Water, and Ice

60 Functions in Both I-P & SI Units

Accurate

- ◇ 'Real' versus 'Ideal' Air
- ◇ Based on ASHRAE RP-1485 and RP-1767
- ◇ Properties of Liquid and Ice Fog Can Be Calculated
- ◇ All Latest IAPWS Standards and NIST Reference Equations Are Used
- ◇ Wide Range of Validity

Powerful and Flexible

Psychrometric Properties

Humidity ratio from total pressure, temperature, and partial pressure of water vapor	Humidity ratio from total pressure, temperature, and relative humidity
Relative humidity	

Thermodynamic Properties

Speed of sound	Specific isobaric heat capacity
Specific isochoric heat capacity	Air-specific enthalpy
Iisentropic exponent	Density
Partial pressure of water vapor in humid air	Partial saturation pressure of water vapor
Air-specific entropy	Air-specific internal energy
Air-specific volume	Compressibility factor

Transport Properties

Thermal diffusivity	Dynamic viscosity
Thermal conductivity	Kinematic viscosity
PRANDTL number	

Saturation Properties

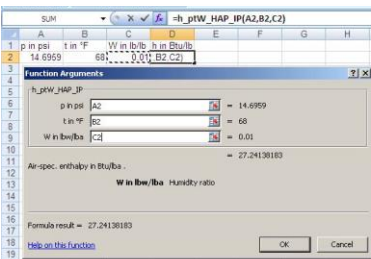
Saturation pressure	Dew-point temperature
enhancement factor of water	
Wet-bulb temperature	Saturation humidity ratio
Humidity ratio from total pressure and dew point temperature	Humidity ratio from total pressure, (dry bulb) temperature and wet-bulb temperature
Backward function: temperature from total pressure, wet-bulb temperature and humidity ratio	Backward function: saturation temperature of water vapor from total pressure and partial pressure of water vapor

Backward Functions

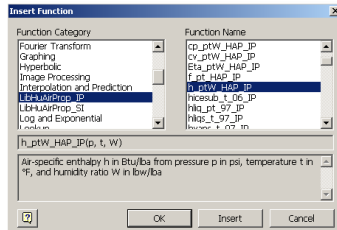
Temperature from total pressure, enthalpy, and relative humidity	Temperature from total pressure, enthalpy, and humidity ratio
Temperature from total pressure, entropy, and humidity ratio	

EASY TO USE IN 6 APPLICATIONS

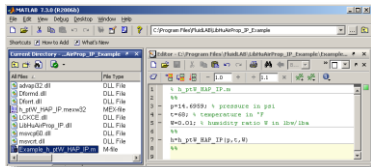
Add-In for Excel®



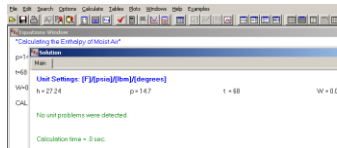
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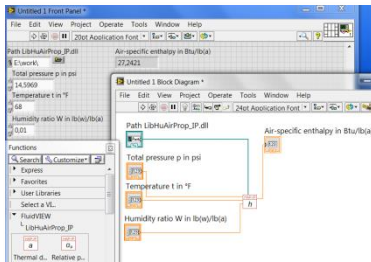
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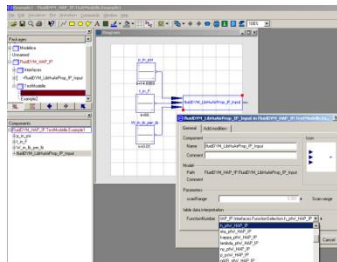
Add-On for EES



Add-On for LabVIEW™



Add-On for DYMOLA®

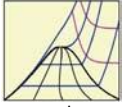


Note: All programs work in Windows up to version 10, 64- and 32-bit

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