Function	Calculates at Specified	Calling Sequence Example
Psychrometrics		
MATDBTWB	Dry bulb temperature and Wet bulb temperature	MATDBTWB(dry bulb, wet bulb, property code, *pressure*, units)
MATDBRH	Dry bulb temperature and Relative humidity	MATDBRH(dry bulb, relative humidity, property code, *pressure*, *units*)
MATDBW	Dry bulb temperature and Humidity ratio	MATDBW(dry bulb, humidity ratio, code, *pressure*, *units*)
MATDBH	Dry bulb temperature and Enthalpy	MATDBH(dry bulb, enthalpy, property code, *pressure*, *units*)
MATDBS	Dry bulb temperature and Entropy	MATDBS(dry bulb, entropy, property code, *pressure*, *units*)
MATDBV	Dry bulb temperature and Volume	MATDBV(dry bulb, volume, property code, *pressure*, *units*)
MATDBTDEW	Dry bulb temperature and Dew point temperature	MATDBTDEW(dry bulb, dew point, property code, *pressure*, *units*)
MAWTWB	Humidity ratio and Wet bulb temperature	MAWTWB(humidity ratio, wet bulb, property code, *pressure*, *units*)
MAWTDB	Humidity ratio and Dry bulb temperature	MAWTDB(humidity ratio, dry bulb, property code, *pressure*, *units*)
MAWRH	Humidity ratio and Relative Humidity	MAWRH(humidity ratio, relative humidity, property code, *pressure*, *units*)
MAWH	Humidity ratio and Enthalpy	MAWH(humidity ratio, enthalpy, property code, *pressure*, *units*)
MAWS	Humidity ratio and Entropy	MAWS(humidity ratio, entropy, property code, *pressure*, *units*)
MAWV	Humidity ratio and Volume	MAWV(humidity ratio, volume, property code, *pressure*, *units*)
MARHTWB	Relative Humidity and Wet bulb temperature	MARHTWB(relative humidity, wet bulb, property code, *pressure*, *units*)
MARHTDB	Relative Humidity and Dry bulb temperature	MARHTDB(relative humidity, dry bulb, property code, *pressure*, *units*)
MARHW	Relative Humidity and Humidity ratio	MARHW(relative humidity, humidity ratio, property code, *pressure*, *units*)
MARHH	Relative Humidity and Enthalpy	MARHH(relative humidity, enthalpy, property code, *pressure*, *units*)
MARHS	Relative Humidity and Entropy	MARHS(relative humidity, entropy, property code, *pressure*, *units*)
MARHV	Relative Humidity and Volume	MARHV(relative humidity, volume, property code, *pressure*, *units*)
Constant Properties		
MAMWW	Molecular weight of water	MAMWW(*units*)
MAMWA	Molecular weight of air	MAMWA(*units*)
MATMIN	Minimum dry bulb temp.	MATMIN(*units*)
MATMAX	Maximum dry bulb temp.	MATMAX(*units*)
MAPMIN	Minimum pressure	MAPMIN(*units*)
MAPMAX	Maximum pressure	MAPMAX(*units*)
MAPZ	Pressure at specified height	MAPZ(height, *units*)
MATZ	Temperature at specified height	MATZ(height, *units*)

Pressure
A user specified global default pressure is used or 1 bar (14.7 psia) is used if no default is specified.

Units	
0 or none	Metric/SI
1	English

Code		Property	Metric/SI Units	English Units
0	Tdb	Dry bulb temperature	°C	°F
1	Twb	Wet bulb temperature	°C	°F
2	Tdew	Dew point temperature	°C	°F
3	P	Pressure	bar	psia
4	Pws	Saturation water vapor pressure	bar	psia
5	Pwet	Saturation pressure at wet bulb temperature	bar	psia
6	Pdew	Saturation pressure at dew point temperature	bar	psia
7	Xw	Water mole fraction	mol%	mol%
8	Xa	Air mole fraction	mol%	mol%
9	Mw	Water weight fraction	wt%	wt%
10	Ma	Air weight fraction	wt%	wt%
11	W	Humidity ratio	dimensionless	dimensionless
12	Ws	Saturation humidity ratio	dimensionless	dimensionless
13	RH	Relative humidity	%	%
14	Va	Volume of dry air	m^3/kg dry air	ft^3/lb dry air
15	Vm	Volume of moist air	m^3/kg dry air	ft^3/lb dry air
16	Vw	Volume of condensed water or ice	m^3/kg	ft^3/lb
17	Vg	Volume of steam	m^3/kg	ft^3/lb
18	Ha	Enthalpy of dry air	kJ/kg dry air	Btu/lb dry air
19	Hm	Enthalpy of moist air	kJ/kg dry air	Btu/lb dry air
20	Hw	Enthalpy of condensed water or ice	kJ/kg	Btu/lb
21	Hg	Enthalpy of steam	kJ/kg	Btu/lb
22	Sa	Entropy of dry air	kJ/(kg dry air.°C)	Btu/(lb dry air.°F)
23	Sm	Entropy of moist air	kJ/(kg dry air.°C)	Btu/(lb dry air.°F)
24	Sw	Entropy of condensed water or ice	kJ/(kg.°C)	Btu/(lb.°F)
25	Sg	Entropy of steam	kJ/(kg.°C)	Btu/(lb.°F)
26	Cpa	Heat capacity at constant pressure of dry air	kJ/(kg.°C)	Btu/(lb.°F)
27	Cpm	Heat capacity at constant pressure of moist air	kJ/(kg.°C)	Btu/(lb.°F)
28	Cpw	Heat capacity at constant pressure of water	kJ/(kg.°C)	Btu/(lb.°F)
29	Cpg	Heat capacity at constant pressure of steam	kJ/(kg.°C)	Btu/(lb.°F)
30	Mua	Viscosity of dry air	Pa.s	lb/(ft.hr)
31	Mum	Viscosity of moist air	Pa.s	lb/(ft.hr)
32	Muw	Viscosity of water	Pa.s	lb/(ft.hr)
33	Mug	Viscosity of steam	Pa.s	lb/(ft.hr)
34	Ka	Thermal conductivity of dry air	W/(m.°C)	Btu/(hr.ft.°F)
35	Km	Thermal conductivity of moist air	W/(m.°C)	Btu/(hr.ft.°F)
36	Kw	Thermal conductivity of water	W/(m.°C)	Btu/(hr.ft.°F)
37	Kg	Thermal conductivity of steam	W/(m.°C)	Btu/(hr.ft.°F)
38	Pra	Prandtl number of dry air	dimensionless	dimensionless
39	Prm	Prandtl number of moist air	dimensionless	dimensionless
40	Prw	Prandtl number of water	dimensionless	dimensionless
41	Prg	Prandtl number of steam	dimensionless	dimensionless
42	Daw	Diffusivity of water vapor in air	m^2/s	ft^2/hr
43	Scm	Schmidt number of moist air	dimensionless	dimensionless
44	Rho	Density of moist air	kg/m^3	lb/ft^3
45	Ds	Degree of saturation	dimensionless	dimensionless