

Vaisala Humidity & Temperature Transmitters

- Measure humidity, temperature, dew point, mixing ratio, absolute humidity and wet bulb temperature
- Small sensor head for use in tight spaces
- Small sensor mass for fast response
- Graphical display shows trends & 1 year history
- Analog & alarm relay outputs
- Corrosion resistant NEMA 4 (IP65) housing
- Single point field calibration



HMT333 ▲

The HMT333 Transmitter is a full featured front end for industrial and commercial humidity measurements. The HMT333 sensor provides accurate reading with excellent long-term stability, over the entire temperature range. The sensor is immune to particle contamination and most chemicals. A chemical purge to clean the sensor (via heating) can be initiated manually or at set intervals.

Two analog outputs easily connect to meters, controllers, recorders and other equipment. The RS-232 interface simplifies setup and calibration. RS-485 & Ethernet options permit networking the HMT333 with other devices. Windows software is available to download and display the measurement data.

Datalogger option records up to 4 years of data.

SPECIFICATIONS

Parameters:	
Standard:	Relative Humidity (RH) Temperature (T)
Optional:	Dewpoint Temperature (Td) Absolute Humidity g/m ³ (a) Wet Bulb Temperature (Tw) Mixing Ratio g/Kg (x) Enthalpy (h)
Temperature Range:	-40 to 80°C (176 °F)
Accuracy at 20°C:	±0.2°C
Temperature dependence:	±0.0025°C/°C
Temperature sensor:	Pt100 class B
RH Accuracy:	
0-90 %RH:	±2% RH
90-100 %RH:	±1.7% RH
Response time:	8 sec. in still air
Accuracy of analog output:	±0.05% full scale
External loads:	
Current outputs:	<500Ω
0-1V output:	>2kΩ
0-5V & 0-10V outputs:	>10kΩ
Power consumption @24VDC:	110mA max, 220ma during purge
Operating temperature:	-40 to 60°C (-40 to 140°F)
with local display:	0 to 60°C (32 to 140°F)
Keypad:	Sealed pushbuttons
Display menus:	English, Spanish, French, German,
Alarm relays:	0.5A@250VAC, SPDT
RS 485/422 interface:	Full or half duplex, 9600 baud
Dimensions:	
Housing:	7.2x4.7x3.0" (183x119x77mm)
Probe:	3.5" x 0.5" dia (89x 12mm)

Additional HMT330 models available for high temperature (180°C), high pressure, vacuum, high humidity and other applications. Also available: HMT360 Series Intrinsically Safe Transmitters.

ORDERING INFORMATION

To Order—Insert Code for Each Letter to Select Catalog Number.
Order Example: HMT333 E0B201BCDC1B01AABC

HMT333	A	B	C	D	E	F	G	H	I	J	K
	L	M	N	O							
A	Cable Length										
E0	2m (6.5ft)										
F0	5m (16.3ft)										
G0	10m (32.5ft)										
B	Transmitter Type										
A	RH+T										
B	RH+T+Td+Tdf+a+Tw+x+ppm+pw+pws+h+dT										
C	Display										
0	No display										
1	Graphic LCD with keypad										
D	Power Supply, Alarm Output										
0	10-35 VDC, 24 VAC										
1	10-35 VDC, 24 VAC isolated										
3	100-240 VAC with 115V cord										
E	Analog Output Level										
1	4-20 mA										
2	0-20 mA										
3	0-1 V										
4	0-5 V										
5	0-10 V										
F	Analog Output Signal (3 digits: Ch1, Ch2, Ch3)										
B	RH 0 to 100%RH										
C	T										
D	Td -20 to +100 °C (-4 to +212 °F)										
E	Tdf -20 to +100 °C (-4 to +212 °F)										
F	a 0 to 600 g/m ³ (0 to +262 gr/ft ³)										
G	Tw 0 to +100 °C (32 to 212 °F)										
H	x 0 to 500 g/kg d.a. (0 to 3500 gr/lb d.a.)										
J	h -40 to 1500 kJ/ kg (-17.2 to 644.9 Btu/lb)										
K	ppm 0 to 5000										
L	pw 0 to 1000 hPa (0 to 14.5 psi)										
M	pws 0 to 1000 hPa (0 to 14.5 psi)										
N	dT -10 to 50 °C (14 to 122 °F)										
G	Analog Output Range for Temperature										
C	-40 to +80 °C (-40 to +176 °F)										
D	-40 to +120°C (-40 to +248°F)										
H	Output Units										
1	Metric										
2	Non-metric										
I	Options (2 Digits: Slot 1, Slot 2)										
1	Relay Output								2	RS-485	
4	Ethernet (requires external power)								6	Datalogger	
0	None										
J	Cable Fitting										
A	Cable gland M20* 1.5										
B	1/2 NPT conduit fitting										
K	Mounting										
0	Normal										
1	Wall plate										
4	DIN rail										
L	Humidity Sensor										
1	General purpose, Humicap180										
2	with sensor purge, Humicap180C										
M	Sensor Protection										
A	PPS grid & stainless steel netting (14 microns)										
B	PPS plastic grid										
C	Sintered stainless filter										
N	Installation Kit										
AB	None										
BB	Duct										
O	PC Accessories										
A	None										
B	Serial cable										
C	Software & cable										

TRANSDUCERS/
SENSORS