



Features & Options

- Accurate Dew Point and Dry Bulb Temperature in One Unit
- $\pm 1.8^{\circ}\text{F}$ (1°C) Dew Point Accuracy for the Normal Range
- Multiple Analog Outputs, 0 to 5VDC or 0 to 10VDC
- No Installation Calibration or Recalibration Required

The green revolution is increasing the use of chilled beams and chilled ceilings in commercial buildings. Chilled water is pumped through hollow beams or special hollow ceiling tiles. Radiation cools the space eliminating air handlers, VAV boxes, fan-coil units and the energy to run them.

The temperature of the chilled water has to be regulated above the space's air dew point temperature. If the beam or ceiling temperature is below the space's dew point, they will "sweat", causing mold and dripping water.

BAPI's Dew Point Sensor is an easy and economical way to measure the dew point temperature. The unit is available with an optional display, temperature setpoint slider and an occupant override pushbutton. The large format display allows you to easily read Dew Point Temperature and Dry Bulb Temperature. The display alternates between these values and is field adjustable between $^{\circ}\text{F}$ or $^{\circ}\text{C}$. One or both of the displayed values may be easily turned on or off by an HVAC technician.



Dew Point Sensors with Setpoint, Display and Override

For detailed specs on the individual Temperature Sensors, turn to the "Sensors" section.

Specifications

Power: 15 to 35 VDC @ 4 mA max

Sensing Element:

Humidity – Capacitive Polymer,
 $\pm 2\%$ RH Accuracy, 10% to 90% @ 25°C

Temperature Sensor

Thermistor, RTD or Semiconductor

Mounting: 2"x4" J-Box or drywall mount
 (screws provided)

Dew Point Temperature Range:

-4 to 122°F (-20 to 50°C)

Operating Environment:

32 to 122°F (0 to 50°C)

0 to 95%RH non-condensing

Response Time: Less Than 60 Seconds

Display: 3.5 digit numeric (Dew Pt & Dry Bulb Temp)

Measurement Offsets (field adjustable)

$\pm 5^{\circ}$ (F or C) in 0.1° or 0.5° increments – DB

± 5 RH in 0.1% or 0.5% increments – RH

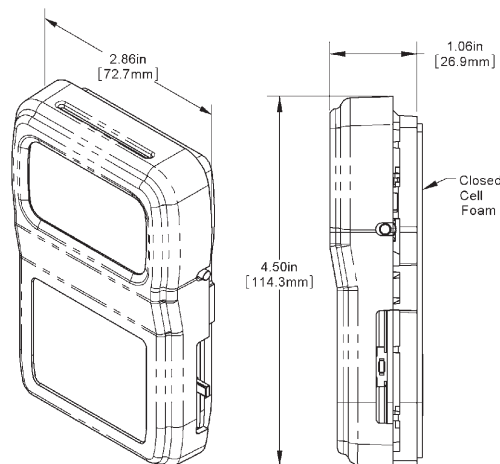
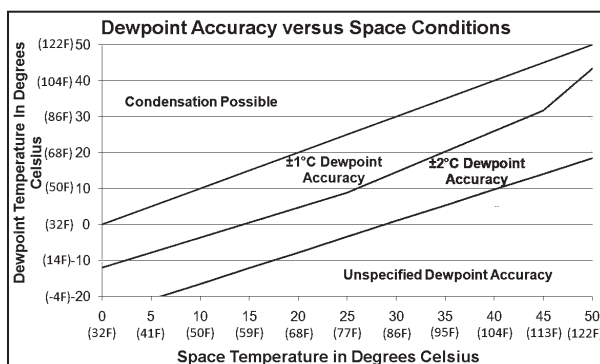
Analog Output (0 to 5 or 0 to 10VDC, $1\text{K}\Omega$ impedance)

Dew Point Temperature: -4 to 122°F (-20 to 50°C)

Calibration: Internal & Continuous

Material: ABS Plastic, Material Rated UL94V-0

Certifications: CE*, RoHS



* Units with passive Thermistors $20\text{K}\Omega$ and smaller, or no temperature sensor, are CE compliant.

Note: BAPI recommends that you do not run wiring for the room units in the same conduit as line voltage wiring or with wiring used to supply highly inductive loads such as motors, generators and coils.





Rev. 07/16/15

Dew Point Sensor

B15

Humidity or Combination Temp/Humidity Sensors



Ordering Information		Dew Point Sensor						
BA/	Dew Point Transmitter							
DP05	Dew Point Transmitter as -4 to 122°F (-20 to 50°C) Dew Point, 0 to 5 VDC output							
DP10	Dew Point Transmitter as -4 to 122°F (-20 to 50°C) Dew Point, 0 to 10 VDC output							
Optional Temperature Sensor Use the designator number (shown to the left in bold) to indicate the sensor								
##	THERMISTORS	RTDs						
	1.8K 1.8K Ω @ 25 °C	1K (375)	1K Ω Platinum @ 0 °C, 3.75 Ω/°C temp. coeff.					
	3K 3K Ω @ 25 °C	1K	1K Ω Platinum @ 0 °C, 3.85 Ω/°C temp. coeff.					
	3.3K 3.3K Ω @ 25 °C	2K	2K Ω Silicon @ 20 °C, 8 Ω/°C temp. coeff.					
	10K-2 10K Ω @ 25 °C							
	10K-3 10KΩ @ 25 °C							
	10K-3(11K) 5,238 Ω @ 25 °C	SEMICONDUCTORS						
	20K 20K Ω @ 25 °C	334	LM334 Semiconductor					
	50K 50K Ω @ 25 °C	592	AD592 Semiconductor, 273 μA @ 0 °C					
	100K 100K Ω @ 25 °C							
Enclosure Style								
-B4	BAPI-Stat 4 Style Enclosure							
LCD Display								
D	LCD Display							
X	No LCD Display							
°F or °C Display Mode (Select one if ordering a unit with LCD Display)								
F	Temperatures Displayed in °F							
C	Temperatures Displayed in °C							
Setpoint Display Options (Skip if not required)								
	Desired Range	Designator	Desired Range	Designator				
	-2 to +2	P	60 to 80 °F or 15 to 27 °C	E				
	-3 to +3	A	65 to 80 °F or 18 to 27 °C	F				
	-5 to +5	B	70 to 74 °F or 21 to 23 °C	L				
	50 to 90 °F or 10 to 32 °C	C	45 to 96 °F or 7 to 36 °C	G				
	55 to 85 °F or 13 to 30 °C	D						
Setpoint Output Value Range (Skip if not required)								
	Desired Range	Designator	Desired Range	Designator				
	674 to 274 Ω	23	15 k to 5 kΩ	61				
	800 to 1200 Ω	25	0 to 20 kΩ	80				
	909 to 1309 Ω	26	4.75 k to 24.75 kΩ	81				
	1800 to 2200 Ω	27	6.19 k to 26.19 kΩ	82				
	0 to 1000 Ω	40	7.87 k to 27.87 kΩ	83				
	500 to 1500 Ω	41	10 k to 30 kΩ	84				
	2 k to 3 kΩ	42	0 to 100 kΩ	90				
	0 to 10 kΩ	60	0 to 5 V	00				
			0 to 10 V	10				
SETPOINT LEGEND (insert Designator #)								
	Legend Range	Designator	Legend Range	Designator				
	5 to 30 C	L1	65 to 80 F	L4				
	55 to 85 F	L2	COOL/WARM	L6				
	60 to 85 F	L3	WARM/COOL	L7				
Override Configuration (Must select one)								
-J	Override as a Separate Output. (Dry contact only, not intended to switch a load.)							
-N	Override in Parallel (//) with Sensor							
-P	Override in Parallel (//) with Setpoint: NOT available on voltage setpoint models							
-Z	No Override. (Needed if no override is required)							
Optional Communication Jack Mounted in unit's base								
-C11L	RJ11 (4 pin) Style Jack with Leads							
-C11LT	RJ11 (4 pin) Style Jack with Leads and Terminal Block							
-C35L	3.5 mm Phono Jack w/ Leads Attached							
-C35LT	3.5 mm Phono Style Jack with Leads and Terminal Block							
-C22L	RJ22 (4 pin) Style Jack with Leads Attached							
-C22LT	RJ22 (4 pin) Style Jack with Leads and Terminal Block							
Optional Test and Balance Switch								
-TB	Three Position Switch							
Logo Plate Color (BAPI-Stat 2 is Warm White only)								
-WMW	Warm White Logo Plate Color (standard)							
-GRY	Gray Logo Plate Color (BAPI-Stat 4 only)							
EXAMPLE								
BA/	DP05	10K-2	-B	D	F	A	41L6	-WMW
Example Part Number: BA/DP05-10K2-B4DF-A61L6-J-C11L-WMW								
Your Part Number:								

Call BAPI if you have questions about the above ordering grid or the configuration of the product you are ordering. This unit is Common Ground Configuration only.

