



HUMIDITY

DEW POINT, ENTHALPY & WET BULB TRANSMITTERS

DP4A, EN4A, WB4A

DESCRIPTION

The Telaire/Amphenol Advanced Sensors Model DP4 Dew Point, WB4 Wet Bulb, and EN4 Enthalpy Transmitters are rugged, compact, and ideally suited for monitoring dew point, wet bulb, or enthalpy in commercial HVAC/BAS applications. Using a capacitive RH sensor and an RTD temperature sensor, the unit's microprocessor computes the dew point, wet bulb, or enthalpy. Two linear outputs provide a 4-20mA signal for dew point, wet bulb, or enthalpy, and a 4-20 mA signal for dry bulb temperature.



FEATURES

- Dew point accuracy of $\pm 1.8^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$) over the specified range
- Enthalpy accuracy of ± 2 BTU/lb over specified range
- Wet bulb accuracy of $\pm 3^{\circ}\text{F}$ over the specified range
- Dry bulb accuracy of $\pm 0.5^{\circ}\text{F}$ ($\pm 0.9^{\circ}\text{C}$) over the specified range
- Two 4-20 mA output signals
- Microprocessor-based signal processing
- Weather resistant duct/OSA mounting
- Temperature compensated

APPLICATIONS

- DP4 supply air setpoint (condensation prevention)
- EN4 economizer efficiency
- WB4 evaporative cooling decision potential

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HUMIDITY

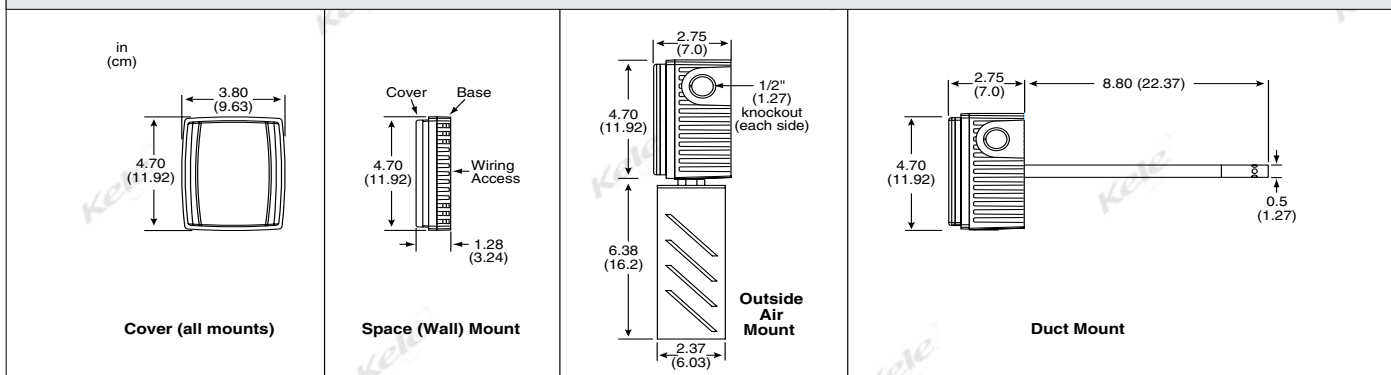
SPECIFICATIONS

Accuracy		Wet Bulb	
Enthalpy	± 2 BTU/lb	Duct/OSA	0° to 100°F (-17.8° to 37.8°C)
Dew Point	$\pm 1.8^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$)	Space	40° to 90°F (4.4° to 32.2°C)
Wet Bulb	$\pm 3.24^{\circ}\text{F}$ ($\pm 1.8^{\circ}\text{C}$)	Dry Bulb	
Dry Bulb	$\pm 0.5^{\circ}\text{F}$ ($\pm 0.9^{\circ}\text{C}$)	Duct/OSA	-20° to 120°F (-28.8° to 49°C)
Supply Voltage	12-30 VDC, 100 mA	Space	40° to 90°F (4.4° to 32.2°C)
Signal Output	Field selectable: 4-20 mA (700Ω max load), 0-5 V, or 0-10 V Humidity and dry bulb temperature	Sensing Technology	Capacitive and replaceable
Measurement Range		Operating Temperature	-40° to 140°F (-40° to 60°C)
Dew Point		Operating Humidity	0 to 99% RH, non-condensing
Duct/OSA	-20° to 120°F (-28.8° to 49°C)	Approvals	CE, RoHs
Space	40° to 90°F (4.4° to 32.2°C)	Weight	
Enthalpy		Room	0.34 lb (0.15 Kg)
Space/Duct/OSA	0-50 BTU/lb	Duct	0.96 lb (0.44 Kg)
		OSA	1.22 lb (0.55 Kg)
		Warranty	1 year



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DIMENSIONS



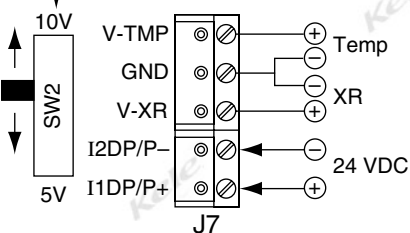
WIRING

VOLTAGE MODE



Switch Positions for Voltage Mode

Switch Selectable 0-5 V or 0-10 V Output



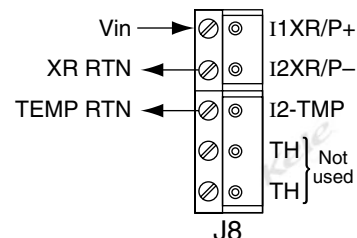
XR and Temperature - Voltage

*XR represents; DP - Dewpoint;
 EN-Enthalpy; WB - Wet bulb

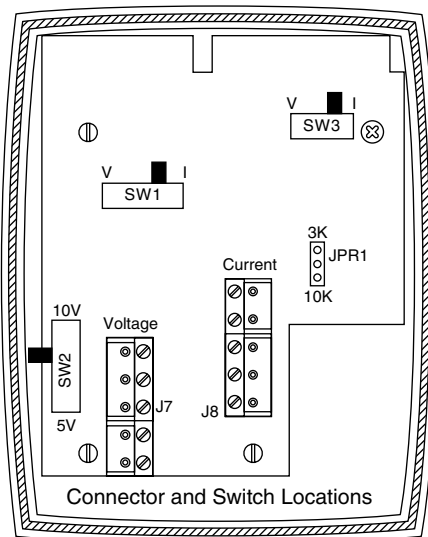
CURRENT MODE



Switch Positions for Current Mode



XR and Temperature - Current Loop



Only one terminal block provided; move for either voltage or current.

ORDERING INFORMATION

MODEL	DESCRIPTION
EN4A-D	Duct enthalpy and dry bulb transmitter
EN4A-O	OSA enthalpy and dry bulb transmitter
DP4A-D	Duct dew point and dry bulb transmitter
EN4A-S	Room enthalpy and dry bulb transmitter
DP4A-O	OSA/Wall dew point and dry bulb transmitter
DP4A-S	Room dew point and dry bulb transmitter
WB4A-D	Duct wet bulb and dry bulb transmitter
WB4A-O	OSA wet bulb and dry bulb transmitter
WB4A-S	Room wet bulb and dry bulb transmitter

RELATED PRODUCTS

DPCA-1.2	Power supply, 120 VAC IN to 24 VAC/24 VDC OUT
DPCP-1.5-W	Power supply, 24 VAC IN to 24 VDC OUT