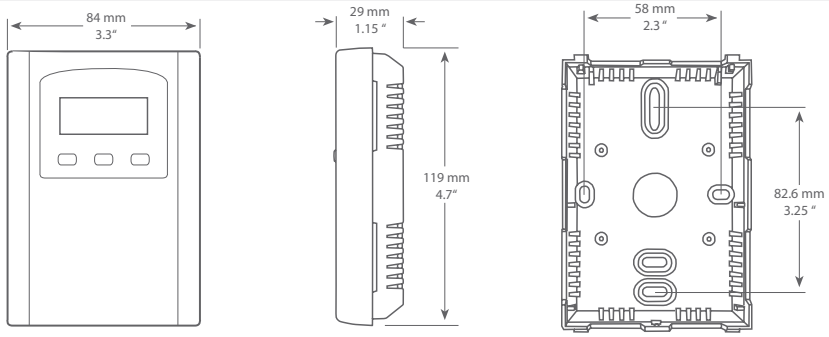
GREYSTONE
ENERGY SYSTEMS INC

ROOM DEWPOINT TRANSMITTER



DPRC SERIES

PRODUCT DESCRIPTION

The DPRC Series room dewpoint sensors are designed for use in environmental monitoring and control systems where high performance and stability are demanded. It's state-of-the-art design combines digital linearization and temperature compensation with a highly accurate and reliable thermoset polymer based capacitance humidity sensor and curve-matched NTC thermistor temperature sensor for reliability and accuracy in the most critical applications.

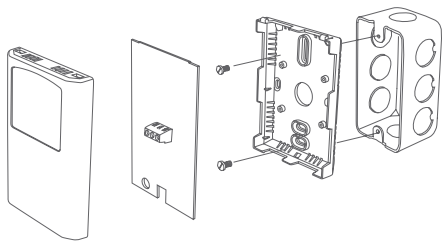
The DP Series has four measurement variables which include dewpoint, dry-bulb temperature, wet-bulb temperature and enthalpy which are available by either an analog, BACnet® or Modbus signal to provide the most efficient monitoring and control solution.

TYPICAL INSTALLATION

For complete installation and wiring details, please refer to the product installation instructions.

The DPRC series can be mounted directly to a single gang electrical box or directly to a wall. The backplate includes many mounting hole congurations to allow for mounting on a variety of electrical boxes.

The DPRC has a screw block terminal provided for connection to the Building Automation System.



SPECIFICATIONS

SENSOR TYPE	Thermoset polymer based capacitive
TEMPERATURE SENSOR TYPE	NTC Thermistor
MEASUREMENT RANGE	**Relative Humidity:** 0 to 100 %RH **Dry Bulb Temperature:** 0 to 50°C (32 to 122°F)
CALCULATED VALUES	**Dewpoint Temperature:** -30 to 50°C (-22 to 122°F) **Wet Bulb Temperature:** -30 to 50°C (-22 to 122°F) **Enthalpy:** 0 to 340 kJ/kg (0 to 146 BTU/lb)
ACCURACY	**Relative Humidity (RH):** ±2 %RH, 10 to 90 %RH @ 25°C **Dry Bulb Temperature (T):** ±0.2°C (±0.4°F) @ 0 to 50°C (32 to 122°F) **Dewpoint Temperature (Td):** ±1.0°C (±1.8°F) @ 40 %RH / 25°C **Wet Bulb Temperature (Tw):** ±1.0°C (±1.8°F) @ 50 %RH / 25°C **Enthalpy:** ±2 kJ/kg (±1 BTU/lb) @ 50 %RH / 25°C
LCD DISPLAY VALUES	**Temperature:** -30.0 to 50.0°C (0.5°C resolution) or -22 to 122°F (1°F resolution) **Dewpoint:** -30.0 to 50.0°C Td (0.5°C resolution) or -22 to 122°F Td (1°F resolution) **Wet Bulb:** -20.0 to 50.0°C Tw (0.5°C resolution) or -4 to 122°F Tw (1°F resolution) **Enthalpy:** 0 to 340 kJ/kg (1 kJ/kg resolution or 0 to 146 BTU/lb (1BTU/lb resolution)
OUTPUT	**Signals (2X):** 4-20 mA or 0-5/0-10 Vdc (factory set) **Signal 1:** Dry Bulb Temperature (field selectable range) T Range 1: -30 to 50°C (-22 to 122°F) T Range 2: 0 to 50°C (32 to 122°F) **Signal 2:** Dewpoint Temperature, Wet Bulb Temperature or Enthalpy (field selectable) Td Range 1: -30 to 50°C (-22 to 122°F) Td Range 2: -20 to 40°C (-4 to 104°F) Td Range 3: 0 to 50°C (32 to 122°F) Tw Range 1: -20 to 50°C (-4 to 122°F) Tw Range 2: 0 to 35°C (32 to 95°F) En Range 1: 0 to 340 kJ/kg (0 to 146 BTU/lb) En Rnage 2: 0 to 250 kJ/kg (0 to 107 BTU/lb) **Impedance @ 24 Vdc:** Current: 500Ω max Voltage: 10,0000Ω minimu
BACnet® PROTOCOL	MS/TP, 2-wire RS-485 *Baud rate* - 9600, 19200, 38400, 57600, or 115200 0-127 slave address range
MODBUS PROTOCOL	RTU, 2-wire RS-485 *Baud rate* - 300, 600, 1200, 2400, 4800, 9600, 19200, or 38400 1-255 slave address range
POWER SUPPLY	20 to 27 Vdc, 16 to 27 Vac (non-isolated half-wave rectified)
CONSUMPTION @ 24 VAC	**Current:** 50 mA max @ 24 Vdc, 1.5 VA max **Voltage:** 30 mA max @ 24 Vc, 1 VA
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing
STORAGE CONDITIONS	-20 to 70°C (-4 to 158°F), 0 to 95 %RH non-condensing
WIRING CONNECTIONS	Terminal block (14 to 22 AWG)
ENCLOSURE	**Material:** White ABS, UL94-V0 Weight: 105 gm (3.7 oz) **Dimensions:** 84mm W x 117mm H x 29mm D (3.3" x 4.6" x 1.15") **Approvals:** CE, RoHS
APPROVALS	CE
COUNTRY OF ORIGIN	Canada

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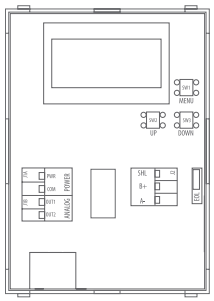
WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/24 Vac
COM	Common
OUT1	Analog Output
OUT2	Analog Output
If BACnet® or Modbus Output Selected	
B(+)	Network Output
A(-)	Network Output
SHL	Network Output

*Some models do not have all features

ORDERING

PRODUCT	**DPRC**	Room Dewpoint Transmitter
OUTPUT	**I** **V** **B** **M**	4-20 mA 0-5 / 0-10 Vdc (field selectable) BACnet® communication Modbus communication
LCD DISPLAY	**N** **L**	Concealed LCD Viewable LCD

PART NUMBER

DPRC

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

RoHS COMPLIANT

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