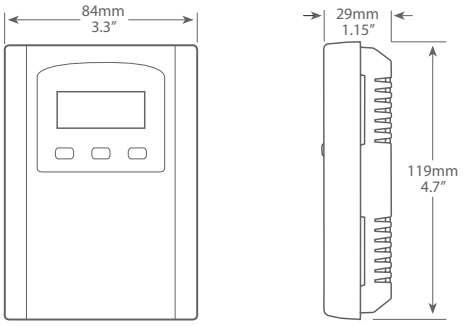
GREYSTONE
ENERGY SYSTEMS INC

HUMIDITY / TEMPERATURE TRANSMITTER C/W SETPOINT ADJUSTMENTS



SPC SERIES

PRODUCT DESCRIPTION

The SPC Temperature/Humidity transmitter incorporates two sensors in one attractive wall mount enclosure for the most efficient environmental monitoring and control system. It uses a field-proven RH senor to monitor relative humidity and a curve-matched thermistor to measure temperature.

Two setpoint controls are also available for temperature and humidity adjustment. The device may also include an occupancy override button and an external communication jack. Both measurements and setpoint signals are available on separate outputs as linear 4-20 mA, 0-5 or 0-10 Vdc signals.

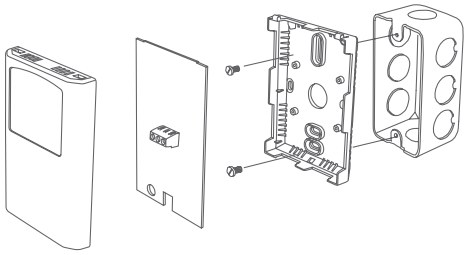
Several configurations of the device are available with one to four outputs as required. An LCD is included for configuration and local indication of all parameters. Several operating parameters can be programmed using a keypad for specific applications including four temperature ranges and °C / °F display.

TYPICAL INSTALLATION

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

The SPC series can be mounted directly to a single gang electrical box or directly to a wall. Insulation foam is adhered to the back of the enclosure to provide a thermal barrier from wall temperatures.

A terminal block connection is provided for connection to the Building Automation System.



SPECIFICATIONS

POWER SUPPLY	24 Vac/dc ±10 % (non-isolated half-wave rectified)
CONSUMPTION	20 mA + (20 mA x number of outputs) max @ 24 Vdc
INPUT VOLTAGE EFFECT	Negligible over specified operating range
PROTECTION CIRCUITRY	Reverse voltage and MOV protected and output limited
OUTPUT SIGNALS	4-20 mA active (sourcing) or 0-5 Vdc or 0-10 Vdc (specify when ordering)
OUTPUT RESOLUTION	10 bit for all signals
OUTPUT DRIVE CAPABILITY	**Current:** 550 Ω max **Voltage:** 10,000 Ω min
PROGRAMMING AND SELECTION	Pushbuttons and on-screen menu
AMBIENT OPERATING RANGE	0 to 50°C (32 to 122°F) 0-95 %RH non-condensing
WIRING CONDITIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	**Ratings:** White ABS - IP30 (NEMA 1) **Dimensions:** 84mm W x 117mm H x 29mm D (3.3" x 4.6" x 1.15")
LCD DISPLAY	**Size:** 38.1mm x 16.5mm (1.5" x 0.65") **Digit Height:** 11.43mm (0.45") **Symbols:** °C, °F, %RH, OCC **Backlight:** Enable or disable via menu
TEMPERATURE	**Accuracy:** ±0.2°C (±0.4°F) **Range:** 0 to 35°C (32 to 95°F) or 0 to 50°C (32 to 122°F) programmable **Offset:** ±9°F programmable **Display Units:** °C or °F programmable **Display Resolution:** 0.5° < 100, 1° > 100
TEMPERATURE SETPOINT	**Midpoint:** 18 to 27°C (65 to 80°F) programmable **Range:** ±2 to ±10°C (±5 to ±20°F) of the midpoint, programmable **Resolution:** 0.5 or 1.0°C and 1.0 or 2°F programmable
HUMIDITY	**Sensor:** Thermoset polymer based capacitive **Accuracy:** ±2, 3 or 5 %RH **Range:** 0 to 100 %RH **Temperature Compensation:** 0 to 50°C (32 to 122°F) **Hysteresis:** ±1.5 %RH **Response Time:** 15 seconds typical **Stability:** ±1.2 %RH typical @ 50 %RH in 5 years **Offset:** ±20 %RH programmable
HUMIDITY SETPOINT	**Midpoint:** 20 to 70 %RH programmable **Range:** ±5, ±10 or ±20 %RH of the midpoint, programmable **Resolution:** 1 %RH
MANUAL OVERRIDE	**Type:** Front panel, momentary pushbutton **Ratings:** 50 mA @ 12 Vdc, N.O., SPST
OCCUPIED INPUT	**Signal Type:** Digital input, 0-5 Vdc standard, active low **Action:** Causes "OCC" segment to light on LCD
FAN SPEED SWITCH	**Type:** Side mounted, 5 position slide switch **Designators:** Off, Auto, Low, Medium, High **Signal:** 2 wire, resistance output at 0, 2, 4, 6, or 8 KΩ Custom ranges available, contact Greystone
COMMUNICATIONS	3.5mm phono jack, Ring/Mid/Tip connections to a 3 pin terminal block
COUNTRY OF ORIGIN	Canada

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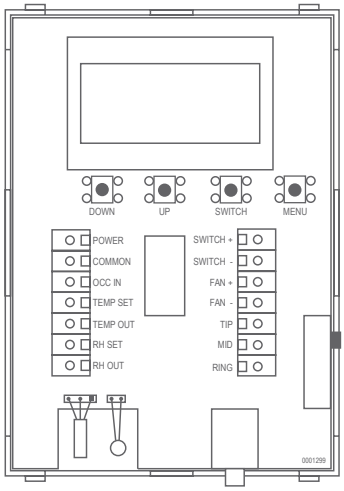
WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+24 Vdc/ac
COM	Common
TEMP SET	Analog Output
TEMP OUT	Analog Output
RH SET	Analog Output
RH OUT	Analog Output
SWITCH +	Digital Output
SWITCH -	Digital Output
FAN +	Analog Output
FAN -	Analog Output
OCC IN	Digital Input
TIP	Digital Input
MID	Digital Input
RING	Digital Input

ORDERING

PRODUCT	**SPC**	Room Humidity/Temperature Transmitter
PRODUCT PARAMETERS	**01** **02** **04** **05** **06**	Humidity transmitter c/w setpoint control Temperature transmitter c/w setpoint control Humidity and temperature transmitter c/w temperature setpoint control Humidity and temperature transmitter c/w humidity setpoint control Humidity and temperature transmitter c/w humidity and temperature setpoint control
OUTPUT	**I** **V**	4-20 mA output 0-5 Vdc or 0-10 Vdc output, jumper selectable
ACCURACY (N/A FOR "02", LEAVE BLANK)	**02** **03** **05**	2% 3% 5%
OPTIONS	**S** **J** **F**	Override switch (includes OCC input) Comm. Jack (3.5mm phono) Fan speed switch

PART NUMBER

SPC

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

RoHS COMPLIANT

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