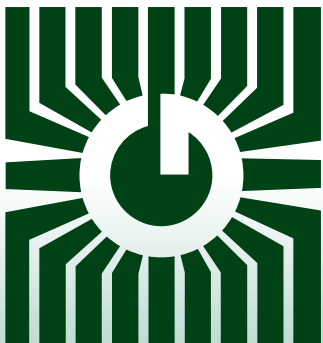


GREYSTONE
ACCURACY BY DESIGN



**HUMIDITY/TEMPERATURE
TRANSDUCER c/w SETPOINT
ADJUSTMENTS
SP Series**



**Precision humidity/temperature
control/sensing**

FEATURES:

- Dual humidity and temperature outputs
- Optional dual setpoint adjustment outputs
- Current and voltage models
- LCD indication
- Highly stable RH sensor element
- Functional and attractive enclosure
- Installer friendly wiring access

***Peace of mind
through reliable
humidity/temperature
monitoring***

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM

DESCRIPTION:

The SP series RH/T 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 sensor to monitor relative humidity over 0-100% RH and a curve-matched thermistor to measure temperature over common field-selectable ranges.

Two setpoint controls are also available for temperature and RH adjustment. The device may also include an occupancy override button and an external communication jack. Both measurements and setpoint signals are continuously 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.

SPECIFICATIONS:

GENERAL

Power Supply.....	24Vac/dc ±10% (non-isolated half-wave rectified)
Consumption.....	20 mA + (20ma x number of outputs) max @ 24 Vdc
Input Voltage Effect	Negligible over specified operating range
RFI Rejection	Good RFI rejection of normal frequencies with standard Installation
Protection Circuitry	Reverse voltage 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	550 ohm max for current 10Kohm min for voltage
Programing and Selection	Via internal push buttons and on-screen menu
LCD Display.....	3.5 digit for 0-100%, 0°-35°C (32°-95°F) or 0°-50°C (32°-122°F). 33 mm W x 14 mm H (1.3"W x 0.55" H) Can be programmed for RH, T or RH & T
Wiring Connections	Screw terminal block (14 to 22 AWG)
Operating Conditions.....	0°-50°C (32°-122°F) 0-95%RH non-condensing
Enclosure Size	71mmW x 119mmH x 32mmD (2.8" x 4.7" x 1.25")
Manufacturing Process.....	ISO9001

TEMPERATURE

Accuracy.....	± 0.2°C (±0.4°F)
Range	0°-35°C (32-95°F) or 0°-50°C (32°-122°F) programmable
Offset.....	± 5° programmable
Display Units	°C or °F programmable

RH

Sensor.....	Thermoset polymer based capacitive
Accuracy.....	±2% RH
Range.....	0-100% RH
Temperature Compensation.....	0°-50°C (32°-122°F)
Hysteresis.....	± 2% RH
Response Time.....	15 seconds typical
Stability.....	±1% RH typical @ 50% RH in 5 years
Offset.....	±9% RH programmable

TEMPERATURE SETPOINT

Midpoint.....	17°-27°C or 63°-81°F programmable
Range.....	±5° or ±10° of the midpoint, programmable

RH SETPOINT

Midpoint.....	20-70% RH programmable
Range.....	±5 or ±10% RH of the midpoint, programmable

OVERRIDE

Switch Contact.....	Referenced to common
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COMMUNICATION

3.5mm phone jack.....	Connects to 3-pin terminal block
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RH/TEMPERATURE TRANSMITTER WITH DUAL SETPOINT CONTROL: PRODUCT ORDERING INFORMATION:

MODEL	Product Description
SP	Model Series Designation

CODE	Product Description
01	RH transmitter c/w with setpoint control
02	Temperature transmitter c/w setpoint control
03	RH and temperature transmitter only
04	RH and temperature transmitter c/w setpoint control for temperature only
05	RH and temperature transmitter c/w setpoint control for RH only
06	RH and temperature transmitter c/w setpoint control for both RH and temperature

CODE	Outputs
I20	4-20mA outputs
V05	0-5Vdc outputs
V10	0-10Vdc outputs

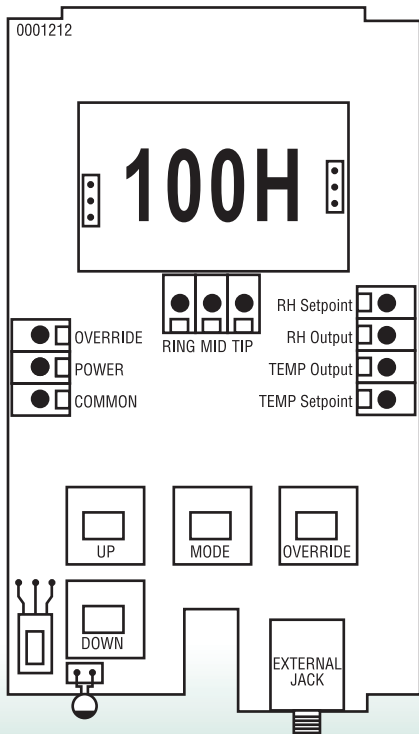
CODE	Options
OR	Override switch
CJ	Communication jack (3.5 mm phone)
BL	Blank cover to conceal LCD

SP 06 I20 OR

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

EXAMPLE:
RH and temperature transmitter c/w setpoint for both, with 4-20mA outputs and override switch.
SP06I20OR

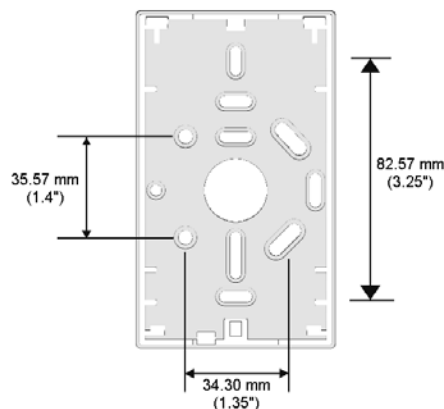
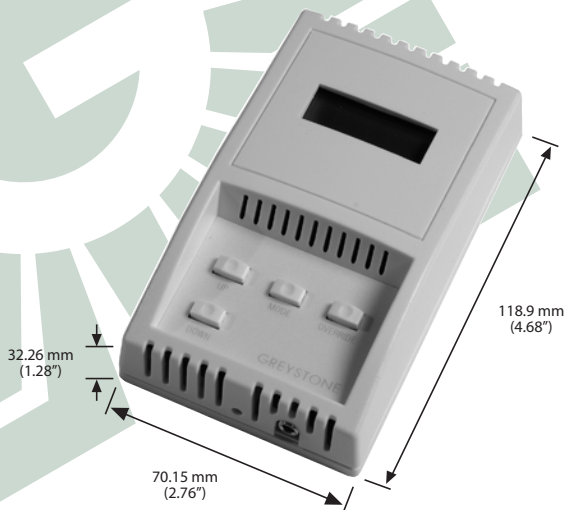
PCB/WIRING INFORMATION



Terminal	Function
POWER	From +24 Vac/dc of controller or power supply
COMMON	To GND or COMMON of controller
OVERRIDE	To digital input of controller
RH Setpoint	To analog input of controller 4-20 mA or 0-5 Vdc or 0-10 Vdc
RH Output	To analog input of controller 4-20 mA or 0-5 Vdc or 0-10 Vdc
TEMP Output	To analog input of controller 4-20 mA or 0-5 Vdc or 0-10 Vdc
TEMP Setpoint	To analog input of controller 4-20 mA or 0-5 Vdc or 0-10 Vdc
TIP	External Jack TIP (tip of plug) connection
MID	External Jack MID (middle of plug) connection
RING	External Jack RING (base of plug) connection

* Some models do not have all these features

DIMENSIONS nts



Other GREYSTONE *Accuracy by Design* Products for the HVAC Professional

- Temperature Sensors and Transducers
- Humidity Transducers
- Pressure Transducers
- Current Switches and Sensors
- Electronic to Pneumatic (IP)
- Transducers
- Power Supplies



GREYSTONE

ACCURACY BY DESIGN

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RoHS
COMPLIANT



Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC sensors and transducers for Building Automation Management Systems.

We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.

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