



Humidity controller/ transducer

- Proportional output control signal
- Actual relative humidity signal
- Electronic adjustment of R.H. set point range (minimum and maximum)
- Adjustable proportional band
- Integrated Low Signal Selector - LSS
- Normally open and normally closed contacts for ON/OFF control
- Electronic display
- Setpoint reset from an over external temperature sensor (otw) to prevent condensation on windows

Specifications:

electrical supply: 24V_{AC}/V_{DC} ± 15%
 electrical load: 4VA max.

inputs: - window temperature input
 - external setpoint input from SK300M humidifier

outputs: - actual humidity (0-100% R.H.)
 - proportional control signal
 - NO/NC contacts rated 1A at 24 VAC or DC for ON/OFF control

setpoint range: 5 - 95% R.H. (in 1% increments)

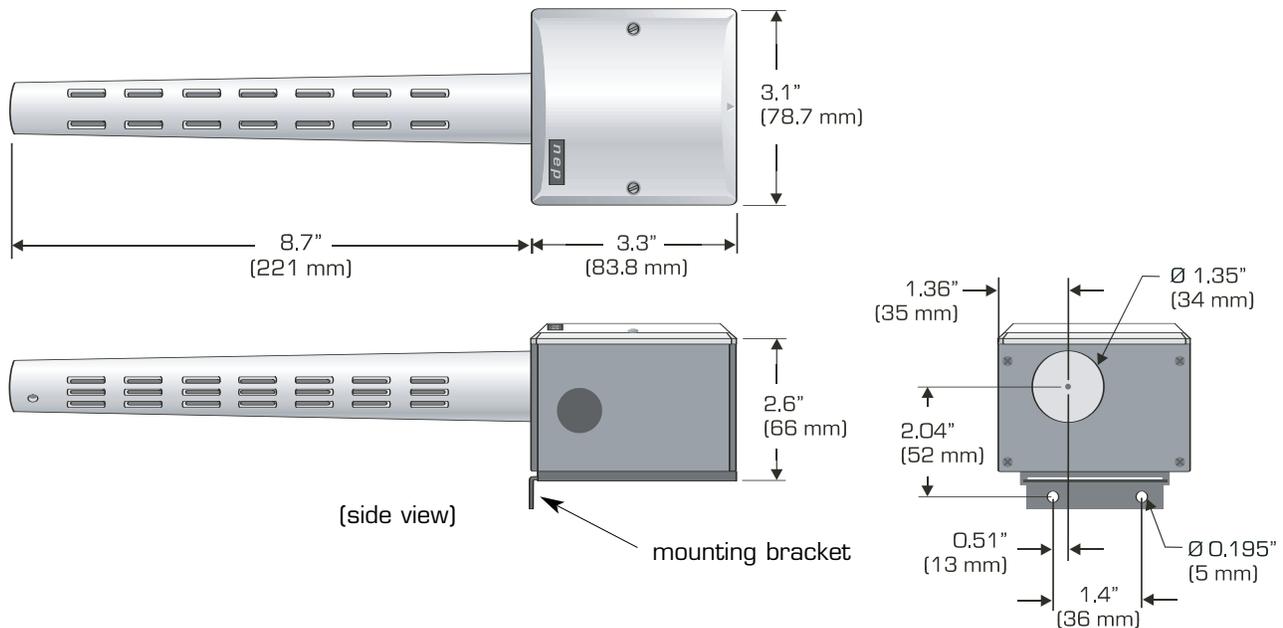
proportional band: 1.5% - 10% for control signal
 1.5% - 10% for dry contact

temperature compensation reset feature: automatic readjustment of setpoint from an interior window temperature sensor (otw)

sensor precision: ± 3% or better at 40% RH and 23°C (73°F)

operating condition: 0° to 40°C 0-95% R.H.
 storage condition: -10°C to 50°C 0-95% R.H.

Dimensions of the controller: inches (mm)



Characteristics:

SW1

ON ↑

1 2 3 4 5 6

P1: Proportional Band Adjustment
1.5-10% proportional
1.5-10% dry contacts

JP1:

- 1- Common
- 2- 24 VAC/VDC
- 3- Actual humidity output (0-100% RH)
0-10V/0-20mA or 2-10V/4-20mA
- 4- Proportional control output
0-10V/0-20mA or 2-10V/4-20mA
- 5- Contact N.C. if %R.H is less than setpoint
- 6- Contact common
- 7- Contact N.O if %R.H is less than setpoint
- 8- Window temperature sensor input (otw)
- 9- Setpoint input from SK300M humidifier
- 10- Low Signal Selector Input - LSS

1- Humidity output	OFF: current output ON: voltage output (default)
2- Control output	OFF: current output ON: voltage output (default)
3- Setpoint selection	OFF: Local setpoint (default) ON: Setpoint from SK300M humidifier
4- Humidity output	OFF: 0 -10VDC ON: 2 -10VDC
5- Control output	OFF: 0 -10VDC or 0 - 20ma ON: 2 -10VDC or 4 - 20ma
6- Enable "LSS" when ON	

Standard features:

- Easy to read display.
- Digital display indicates current humidity and desired setting.
- All settings stored in no-volatile memory, and never lost in power failure.
- Automatic control to prevent condensation in windows (optional sensor; model OTW, required).

HDM: Control mode description:

- 1- The display alternates between the actual humidity %RH and the setpoint setting every 6 sec.
- 2- Press the **UP** or **DOWN** button to adjust the desired setpoint setting.



HDM: Program mode description:

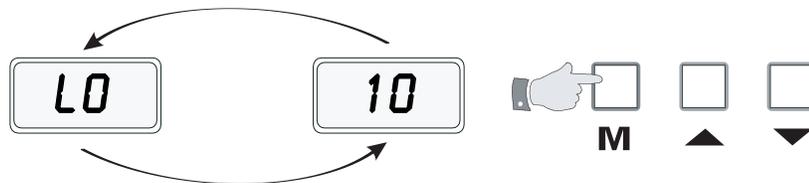
To access the program mode on the humidistat press on the **MENU** button.



LEVEL 1: LO - MINIMUM SETPOINT ADJUSTMENT

This level allows the selection of the minimum setpoint, which can be increased or decreased by pressing the **UP** or **DOWN** button. When entering this level, the display will alternate between **LO** (minimum setpoint) and the actual programmed minimum (factory set at 10%).

Display:

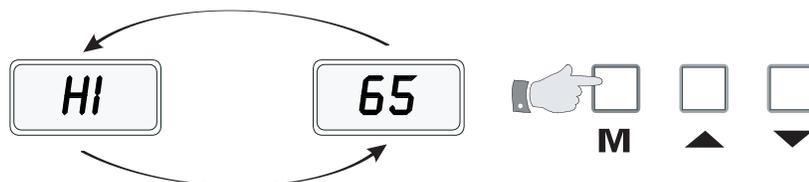


To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

LEVEL 2: HI - MAXIMUM SETPOINT ADJUSTMENT

This level allows the selection of the maximum setpoint, which can be increased or decreased by pressing the **UP** or **DOWN** button. When entering this level, the display will alternate between **HI** (maximum setpoint) and the actual programmed maximum (factory set at 65%).

Display:



To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

LEVEL 3 : ACTUAL HUMIDITY CALIBRATION

This level allows the calibration of the humidity sensor readout, which can be done with the **UP** or **DOWN** buttons when the humidistat is in the control mode. When entering this level, the display will alternate between **rH** (relative humidity) and the actual humidity (%RH).

Display:

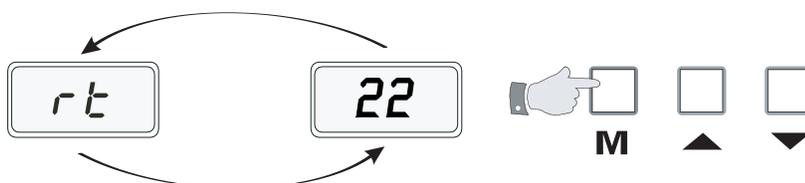


To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

LEVEL 4: ROOM TEMPERATURE CALIBRATION (IF OTW IS PRESENT)

This level allows the calibration of the room temperature sensor if the window temperature sensor (OTW) is present, which can be done with the **UP** or **DOWN** buttons. When entering this level, the display will alternate between **rt** (room temperature) and actual temperature (°C).

Display:

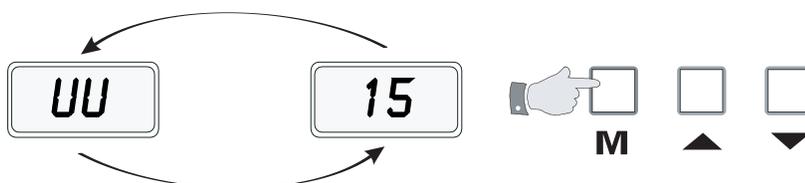


To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

LEVEL 5: WINDOW SENSOR CALIBRATION (IF OTW IS PRESENT)

This level allows the calibration of the window temperature sensor (OTW) if present, which can be done with the **UP** or **DOWN** buttons. When entering this level, the display will alternate between **UU** (window temperature) and actual temperature (°C).

Display:

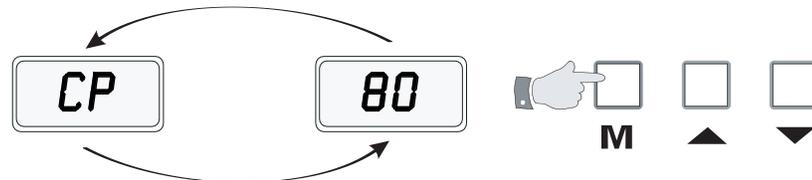


To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

LEVEL 6: OUTSIDE TEMPERATURE COMPENSATION FACTOR (IF OTW IS PRESENT)

This level allows changing the compensation factor to avoid condensation on the windows, which can be done with the **UP** or **DOWN** buttons. When entering this level, the display will alternate between **CP** (Compensation factor) and actual programmed value (factory set at 80%). The lower the factor, higher the compensation factor, it will reset the humidity setpoint.

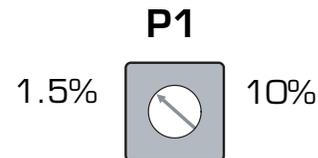
Display:



To proceed to the next level press **MENU** button. Otherwise, the humidistat will return to the control mode in 10 seconds.

Proportional band adjustments:

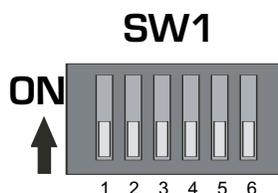
Proportional band adjustment can be set by using a small screwdriver, turn the proportional band potentiometer (**P1**) to the desired point (1.5 to 10%). This selected value will be displayed for 5 seconds.



Voltage signal output configuration:

Using the dipswitch **SW1** configuration be made to:

- Set the humidity read out in voltage or current output.
- Set control signal output in voltage or current output.
- Internal setpoint can be set from the humidistat or from the SK300M series humidifier.
- Humidity read out 0-10Vdc or 2-10Vdc.
- Control output 0-10Vdc or 2-10Vdc.
- LSS input from another controller, the lower signal of the two will be sent to the control output terminal (4).



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|-------------------------|----------------------------------------------------------------------|
| 1- Humidity output | OFF: current output
ON: voltage output (default) |
| 2- Control output | OFF: current output
ON: voltage output (default) |
| 3- setpoint selection | OFF: Local setpoint (default)
ON: Setpoint from SK300M humidifier |
| 4- Humidity output | OFF: 0 -10VDC
ON: 2 -10VDC |
| 5- Control output | OFF: 0 -10VDC or 0 - 20ma
ON: 2 -10VDC or 4 - 20ma |
| 6- Enable "LSS" when ON | |