hrm

Humidity controller/ transducer

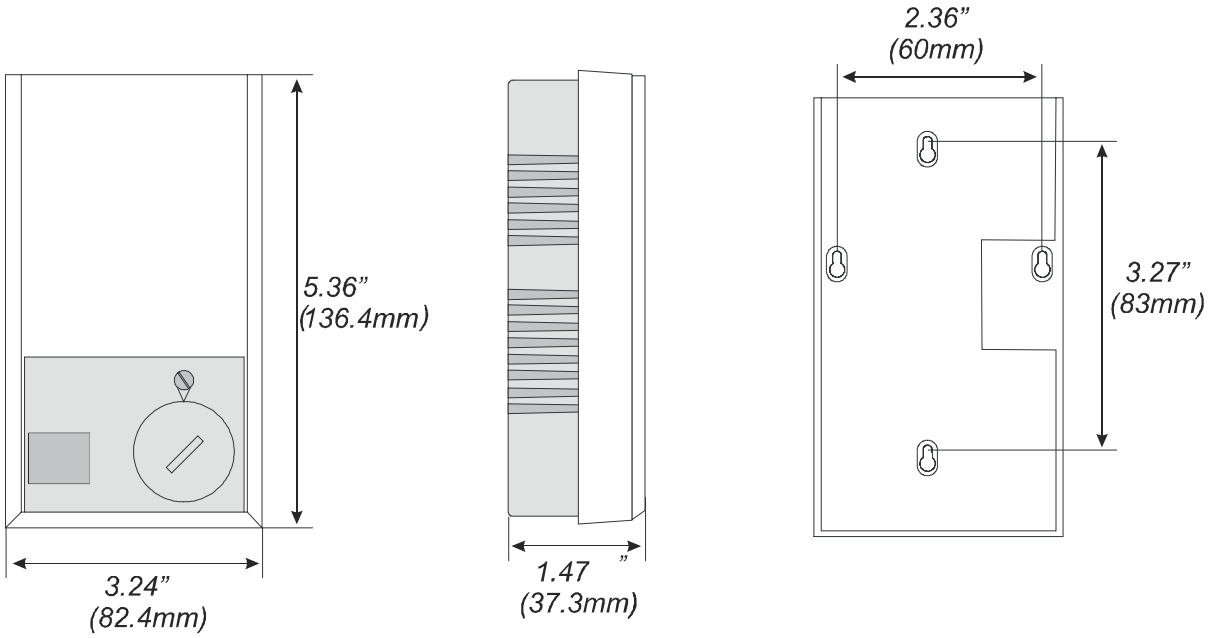
(illus. 1)

- Proportional output control signal
- Actual relative humidity signal
- Set point adjustement with mechanical lock
- Electronic limiting of R.H. set point range (minimum and maximum)
- Ajustable proportional band
- Normally open and normally closed contacts for ON/OFF control
- Electronic liquid cristal display (LCD)
- Set point reset from an over external temperature sensor (otw) to prevent condensation on windows

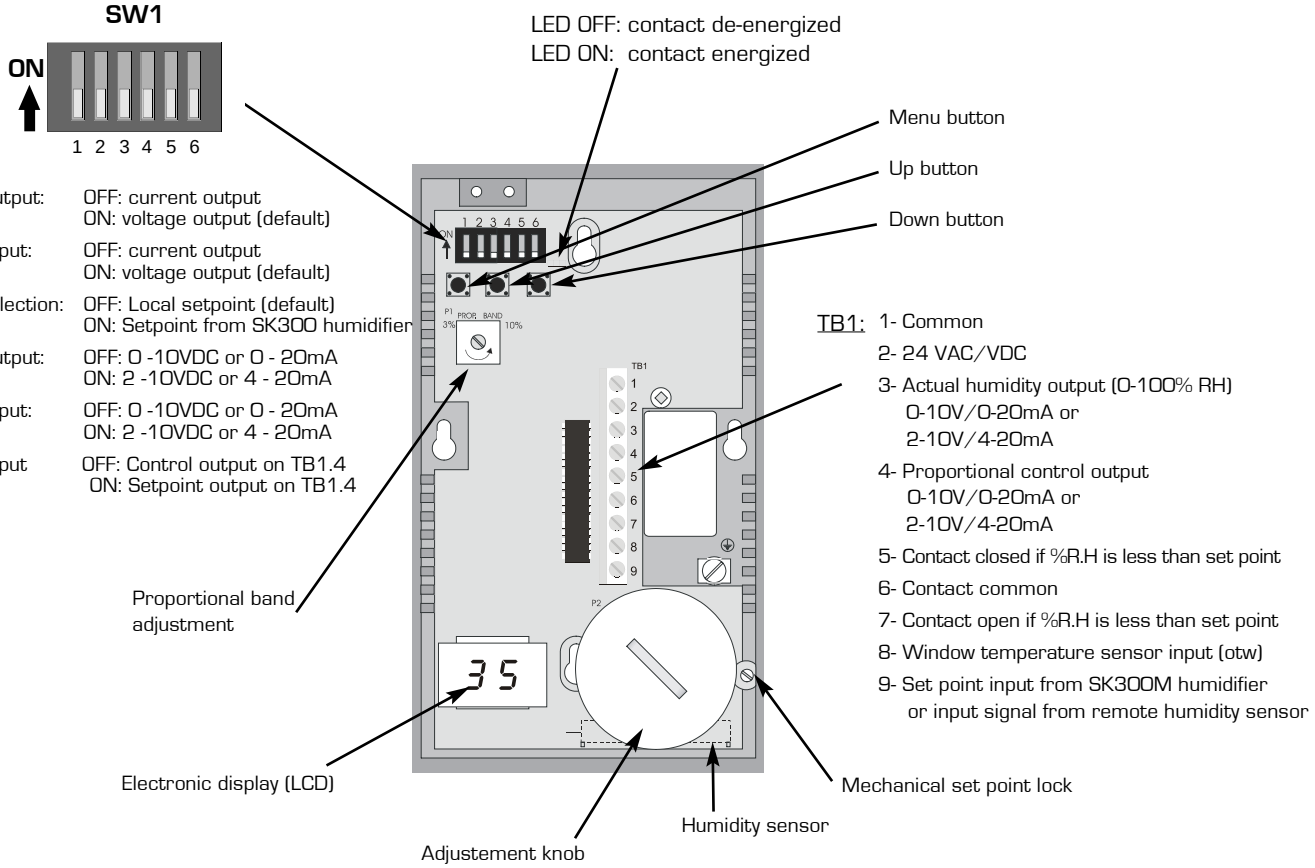
Specifications:

electrical supply:	24VAC/VDC ± 15%
electrical load:	4VA max.
inputs:	- window temperature input - external set point input from SK-300M humidifier or input signal from remote humidity sensor
outputs:	- actual humidity (0-100% R.H.) - proportional control signal - NO/NC contacts rated 1A at 24 VAC or DC for on/off control
set point range:	0 - 95% R.H. (in 1% increments)
proportional band:	1.5%-10% for control signal 6 @ 10% for dry contact
temperature compensation reset feature:	automatic readjustment of set point from an interior window temperature sensor (otw)
sensor precision:	± 3% or better at 40% RH and 23°C (73F)
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:

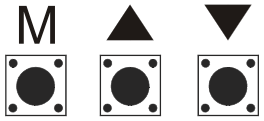


Standard features:

- 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).

HRM: Program mode description:

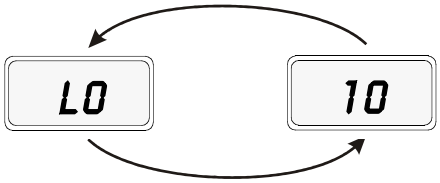
To access the program mode on the humidistat press on the **MENU** button.

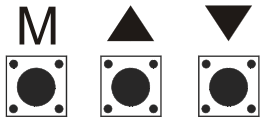


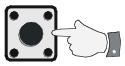
LEVEL 1: LO - MINIMUM SETPOINT ADJUSTMENT

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:



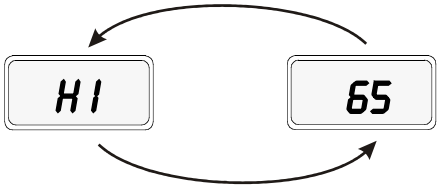


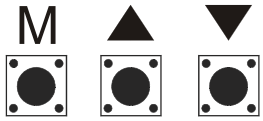
To proceed to the next level press **MENU** button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

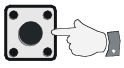
LEVEL 2: HI - MAXIMUM SETPOINT ADJUSTMENT

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:



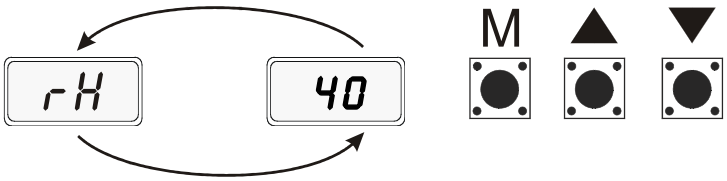


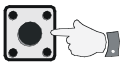
To proceed to the next level press **MENU** button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

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).

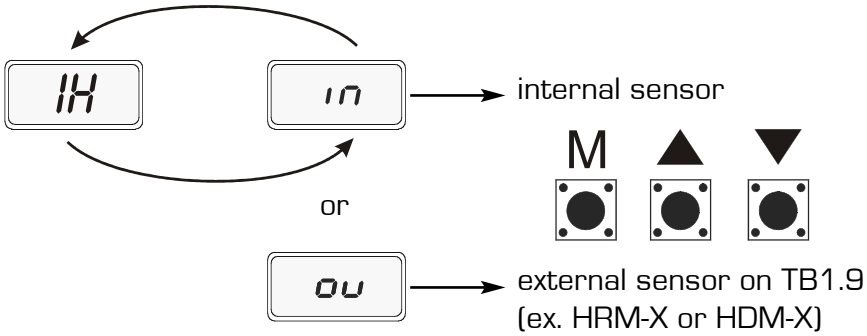
Display:

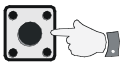


To proceed to the next level press **MENU** button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

Level 4: Humidity input source

This level allows you to select humidity source input, which can be done with the **UP** or **DOWN** buttons.

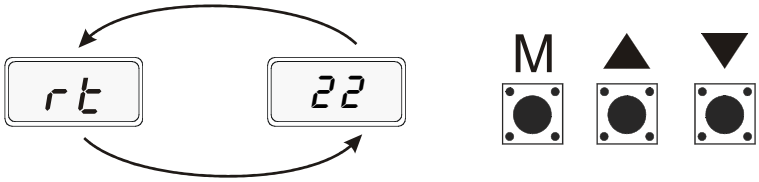


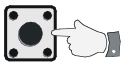
To proceed to the next level press **MENU** button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

Level 5: 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:

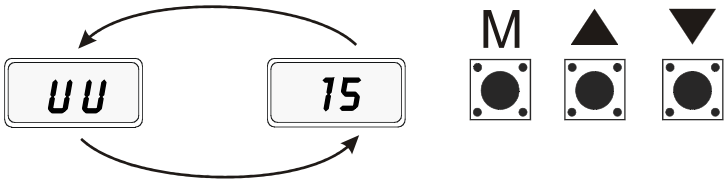


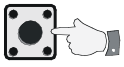
To proceed to the next level press **MENU** button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

Level 6: 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:

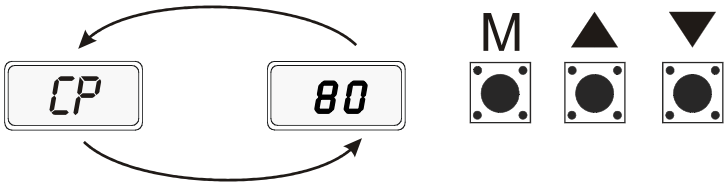


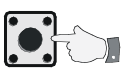
To proceed to the next level press Menu button.  Otherwise, the humidistat will return to the control mode in 10 seconds.

Level 7: 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.

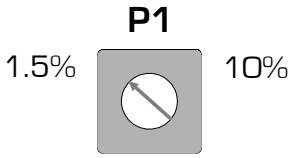
Display:



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

Proportional band adjustments:

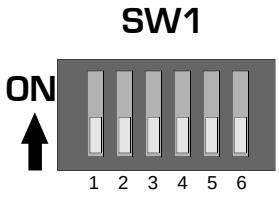
Proportional band adjustment can be set by using a small screwdriver, turn the proportional band potentiometer **(P1)** to the desired point (1.5 to 10%). This selected value will be displayed for 5 seconds.



Voltage signal output configuration:

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

- Set the humidity output 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 SK300 series humidifier.
- Humidity read out 0-10Vdc or 2-10Vdc. (0-20mA or 4-20mA)
- Control output 0-10Vdc or 2-10Vdc. (0-20mA or 4-20mA)



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 SK300 humidifier
4- Humidity output	OFF: 0 -10VDC or 0 - 20ma ON: 2 -10VDC or 4 - 20ma
5- Control output	OFF: 0 -10VDC or 0 - 20ma ON: 2 -10VDC or 4 - 20ma
6- Control output selection:	OFF: Control output on TB1.4 ON: Setpoint output on TB1.4