

SF65 HUMISTAT - OPERATING INSTRUCTIONS

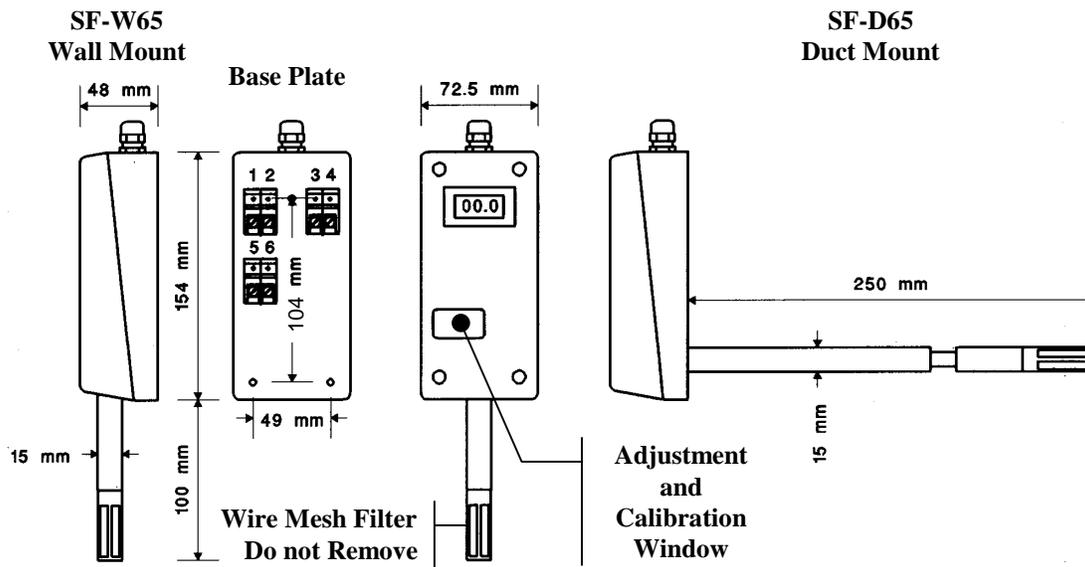
INSTALLATION AND WIRING

The SF65 series includes a base plate (dark gray) and a plug-in electronics/sensor module (light gray). To install, remove the 4 screws that secure the module from the base and pull the module away from the base. Position the base on the mounting surface so that the sealing cable grip is on top. Secure the base with 3 screws (5/32"). To provide adequate sealing, use a 6-wire cable with an outside diameter of 0.236 to 0.275 inch. Preferably, the wires should be 18 AWG. Depending on the application, you may have to use a cable with twisted pairs or a shielded cable.

The electrical connections to the terminals on the base plate are as follows (see drawing below):

- 1 Power: 24 VDC (+) or 24 VAC (Phase)
- 2 Common: DC Ground (-) or 24 VAC (Neutral) and Humidity (-)
- 3 Signal: Humidity (+): 0..10 VDC = 0..100% RH
- 4 SPDT Relay Common
- 5 SPDT Relay - Normally Open (open above the set point)
- 6 SPDT Relay - Normally Closed (closed above the set point)

After completing the wiring, plug the module into the base plate and secure it with the 4 screws. Turn the power on.



CONNECTIONS

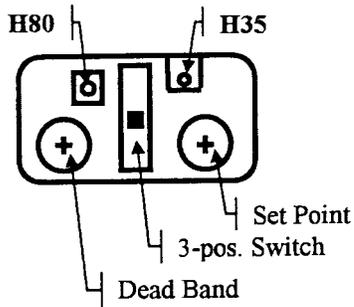
Remote display or Recorder: Terminals 2 (-) and 3 (+), 0..10 VDC signal

Humidifier: Terminals [4] and [5]

Dryer: Terminals [4] and [6]

WARNING: for safety reasons, do not use relay contacts to switch any voltage higher than 24 VDC or 24 VAC.

ADJUSTMENTS AND CALIBRATION

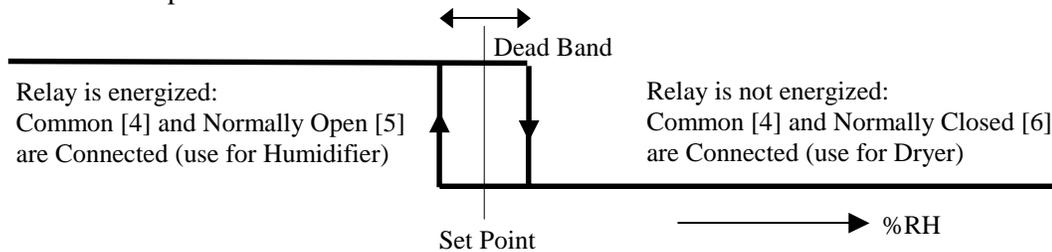


With a screwdriver, pop out the cover of the adjustment and calibration window (ROTRONIC Label). This gives you access to the 3-position function switch and to the set point, dead band, H35 and H80 potentiometers.

3-Position Function Switch:

- Up: Display Dead Band (negative number)
- Center: Display Measurement
- Down: Display Set Point

To adjust the set point or the dead band, use the 3-position switch to display the value and adjust up or down with the potentiometer.



For a full calibration of the SF65, slip a calibration device (ERV15 for SF-W65, ER15 for SF-D65) over the end of the probe and make sure it seals tightly. Remove the receptacle from the calibration device and place in it a calibration pad (white fiber disk). Empty the contents of a ROTRONIC EA35 humidity standard (salt solution) on the calibration pad. Put the receptacle tightly back on the calibration device. The receptacle should be below the sensors (do not spill the humidity standard on the sensors). Allow 45 minutes for equilibration. During this time, temperature should be reasonably constant. When the display is steady, adjust to read 35%RH with the H35 potentiometer. Discard the calibration pad, wash and dry the receptacle. Repeat this operation with an EA80 standard. Adjust the display to read 80%RH with the H80 potentiometer. To do a 1-point adjustment against a reference instrument, use the H35 potentiometer.

SPECIFICATIONS

Measuring Range	: 0..100%RH
Operating Temperature	: 32 .. 140°F (0..60°C)
Accuracy at 77°F	: ±2%RH (10..100%RH) ±3%RH (0..10%RH)
Repeatability	: ±0.3 %RH
Sensor Stability	: ± 1 %RH typical at 50%RH in 5 years
Relay Contacts	: SPDT Single Pole Double Throw, 24 VDC/24 VAC, 3A (common, normally closed, normally open)
L.C. Display	: 00.0 to 99.9
L.C. Display Modes	: Measurement, Set Point or Dead Band (3 position switch)
Analog Output	: 0..10 V = 0..100%RH
Set Point	: Adjustable from 10..95 %RH
Dead Band	: Adjustable from 1 to 5 %RH
Power Requirements	: 24 VDC or 24 VAC ± 10%