

Controllers

Electronic Hygrotherm



Industry Standards

CE

cURus; File No. E164102

Application

The Electronic Hygrotherm senses ambient temperature and relative air humidity and adjusts a connected device to maintain temperature and humidity set points.

Features

- Temperature (32-140 F) and humidity (50%-90% RH) adjustment
- High switching capacity
- Optical function displays (LED) in each control
- Long service life (100,000 cycles NO) (50,000 cycles, NC)
- Mounting clip for 35-mm DIN rail
- Change-over contact (relay)
- Connection: 5-pole terminal for AWG 14 max (2.5-mm square)
- Plastic housing UL94V-0
- Vertical mounting
- Maximum switching capacity:
 - 120 VAC 8A (Resistive Load)
 - 240 VAC 8A (Resistive Load)
 - 120 VAC 3A (Inductive Load)
 - 240 VAC 3A (Inductive Load)
 - 24 VDC 4A

Finish

Light-gray plastic UL94V-0

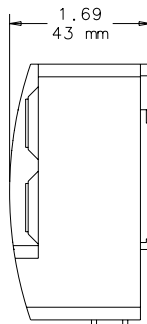
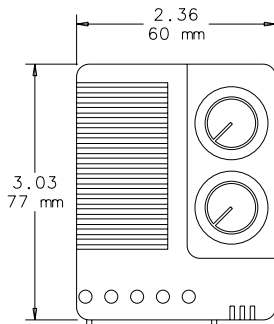
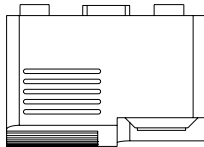
Bulletin: D85

Standard Product

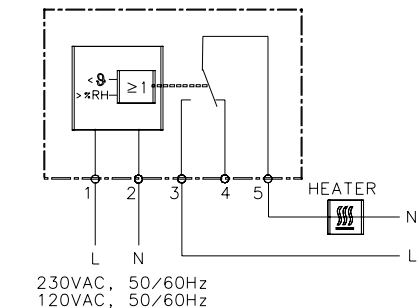
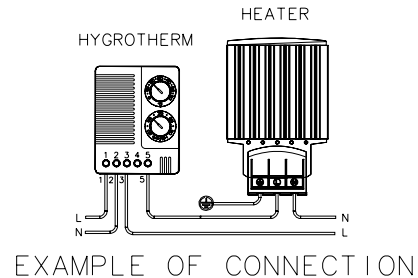
| Catalog Number | AxBxC in. | AxBxC mm | Hysteresis | Humidity Set Point (adjustable) | Temperature Set Point (adjustable) (°F) | Operating Temperature Range (°C) | Storage Temperature (°F) | Storage Temperature (°C) |
|----------------|--------------------|--------------|-------------------------------------|---------------------------------|---|----------------------------------|--------------------------|--------------------------|
| ATEMHUM | 3.03 x 2.36 x 1.69 | 77 x 60 x 43 | ~ 3.6 F (2K) ± 1.8 F (1K) tolerance | 50-90% RH | 32 to 140 | 0 to 60 | -4 to 176 | -20 to 80 |

Relay Output

| Contacts | Close at... | Open at... | Use for |
|----------|-----------------------------------|-----------------------------------|---|
| 3 and 5 | humidity rise or temperature drop | humidity drop or temperature rise | heaters, dehumidifiers, low-temp alarms |
| 4 and 5 | humidity drop or temperature rise | humidity rise or temperature drop | cooling, humidifiers, high-temp alarms |



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CONNECTION DIAGRAM

Controllers

Mechanical Hygrostat



Application

The Mechanical Hygrostat controls relative air humidity inside an enclosure to prevent condensation and corrosion that can damage components. It can also be connected to an enclosure heater, cooling fans, warning lights or other devices.
The critical relative humidity (RH) level for most components is 65 percent. Above 65 percent RH, condensation can form and cause electronic equipment to malfunction.

Features

- Adjustable relative humidity range
- High switching capacity
- Long service life (>100,000 cycles)
- Maximum permissible air velocity of 50 ft./sec. (15 m/s)
- Maximum switching voltage = 250 VAC
250 V should be switched only in a non-condensing environment
- Change-over contact
- Mounting clip for 35-mm DIN rail
- Connection: 3-pole terminal for AWG 14 max. (2.5-mm squared)
- Contact resistance less than 10 mΩ

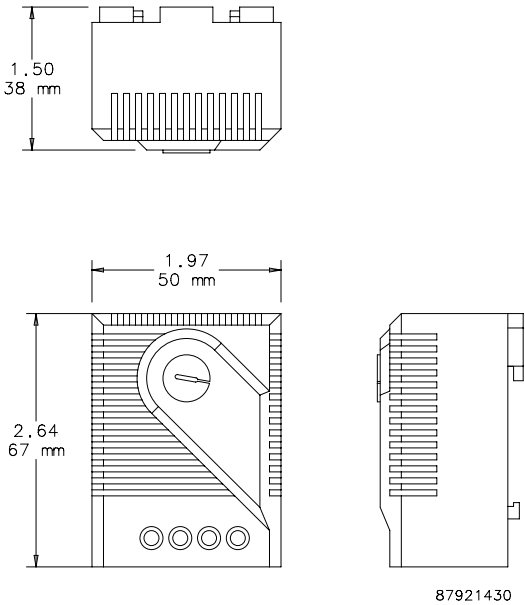
Finish

Light-gray plastic, UL94V-0
Bulletin: D85

Industry Standards
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Standard Product

| Catalog Number | AxBxC in. | AxBxC mm | Switching Capacity (Minimum) | Switching Capacity (Maximum) | Operating Temperature Adjustable (°F) | Operating Temperature (Adjustable) (°C) | Storage Temperature (°F) | Storage Temperature (°C) | Setting Range |
|----------------|--------------------|--------------|------------------------------|---|---------------------------------------|---|--------------------------|--------------------------|---------------|
| AMHUM | 2.64 x 1.97 x 1.50 | 67 x 50 x 38 | 100mA @ AC/DC 20 V | 5A @ AC 250 V (resistive load) 0.2A @ AC 250 V (inductive load at cos 0 = 0.8) DC 20W | 32 to 140 | 0 to 60 | -4 to 176 | -20 to 80 | 35 to 95% RH |



Controllers

Dual Thermostat



Industry Standards

CE

CSA File No. 215952

cURus; File No. E164102

Application

Two thermostats in one, the Dual Thermostat independently controls equipment heating and cooling systems.

Features

- Two thermostats; one normally closed (NC), red, and one normally open (NO), blue, in one casing
- Wide adjustable temperature range (32 -140 F)
- Thermostatic bimetallic sensor element
- Connection: 4-pole terminal for AWG 14 max (2.5 mm²)
- Mounting clip for 35-mm DIN rail

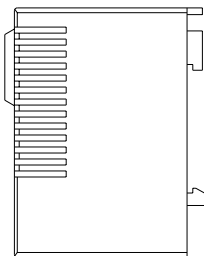
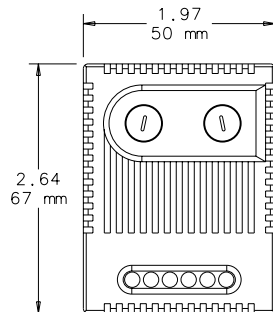
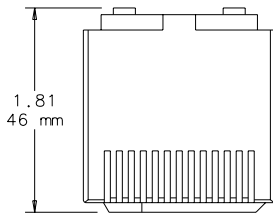
Finish

Light-gray plastic, UL94V-0

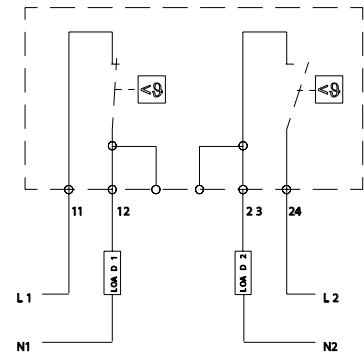
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Standard Product

| Catalog Number | AxBxC in. | AxBxC mm | Switching Capacity (Normally Closed) | Switching Capacity (Normally Open) | Setting Range (Normally Closed) | Setting Range (Normally Open) |
|----------------|--------------------|--------------|--|---|------------------------------------|----------------------------------|
| ADLTEMP | 2.64 x 1.97 x 1.81 | 67 x 50 x 46 | 10 A resistive/2 A inductive @250 VAC, DC 30 W | 5 A resistive/2 A inductive @250 VAC, DC 30 W | 32-140 F | 32-140 F |



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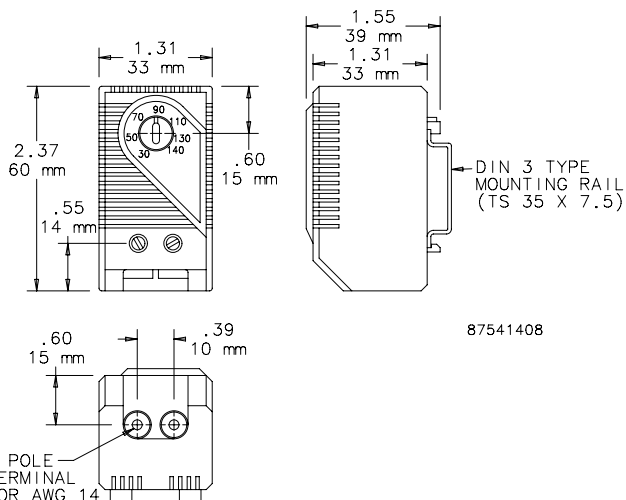
CONNECTION DIAGRAM

These easy-to-install thermostats regulate and monitor air temperature in enclosures that contain heat-emitting equipment. Thermostats prolong heater and fan life expectancy by controlling operation time and increase electrical component working efficiency by exposing them to fewer environmental contaminants.

- Additional label for conversion to Celsius scale and blank label to cover set point range label when adjustment after initial setting is not desired are included
- Bimetal temperature sensor
- Plastic housing
- Connections consist of tubular screw terminals for AWG 14 (.04 sq. in.)
- Provision for both panel mounting and DIN rail mounting

Molded plastic housing is black

Bulletin: D85



| Catalog Number | Contact Type | Control Application |
|----------------|------------------------------------|---------------------|
| ATEMNC | NC (normally closed), quick acting | Heater |
| ATEMNO | NO (normally open), quick acting | Fan |

| Load | Amps |
|--------------|--|
| Maximum load | 15 A resistive / 2 A inductive @ 120 VAC 10 A resistive / 2 A inductive @ 250 VAC |
| | DC 30 W |
| Minimum load | 20 mA (all voltages) |