# ELECTRONIC HYGROTHERM

## ETF 012 | 01230.1-00



The electronic hygrotherm simultaneously monitors temperature and air humidity in enclosures and casings. Condensation is avoided by switching the heating and fans as required. In the design with an external sensor, this can be placed anywhere in the enclosure, enabling precise measurement.

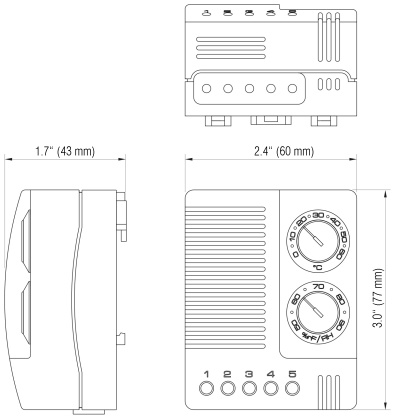
- Adjustable temperature and air humidity
- Wide-range voltage
- High switching capacity
- Operating temperature down to -40 °C
- Visual status display

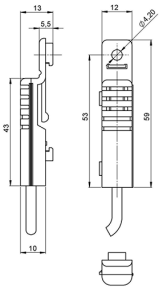
## OVERVIEW TECHNICAL DATA

| | |
|---|---|
| Device type | Hygrotherm |
| Setting range | 0 °C - 60 °C |
| Contact type | Relay |
| Protection type | IP20 |
| Operating display | LED |
| Casing | Plastic to UL94 V-0, light grey |
| AC/DC | DC |
| Operating voltage | 24 V - 48 V |
| Inrush current | 30 A |
| Inrush current duration | 10 s |
| Power consumption | 1 W |
| Switching capacity | AC 240 V, 10 (1.6) A;<br>DC 30 W, DC 60 V, 0.6 A |
| Switching current ohmic | 10 A |
| Reference voltage ohmic | 240 VAC |
| Reference voltage 2 ohmic | 120 VAC |
| Switching current inductive | 1,6 A |
| Reference voltage inductive maximum | 240 VAC |
| Reference voltage 2 | 120 VAC |
| Switching current dc ohmic | 0,6 A |
| Reference voltage dc ohmic | 60 VDC |
| Reaction time | 5 s |
| Service life | VDE: >15000 cycles<br>UL: >30000 cycles |
| Setting range 2 | 50 % RH - 90 % RH |

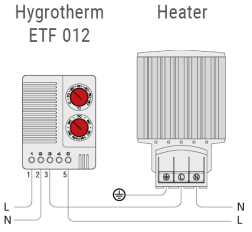
| | |
|---|---|
| Switching differential | 2 K |
| Switching differential tolerance | ± 1 K |
| Switching differential 2 | 4 % RH |
| Switching differential 2 tolerance | ± 1 % RH |
| Operating temperature | -40 °C - 60 °C |
| Operating humidity | ≤90 % RH |
| Storage humidity | ≤90 % RH |
| Storage temperature | -40 °C - 60 °C |
| Torque | 0,5 Nm max. |
| Connection | 5-pole clamp: rigid wire/stranded wire with wire end ferrule 2.5 mm² (AWG 14) |
| Design | Changer |
| Mounting | Clip for 35 mm DIN rail, EN 60715 |
| Height | 77 mm |
| Width | 60 mm |
| Depth | 43 mm |
| Weight | 200 g |
| Note | Switching resistive load (switching inductive load). Wire end ferrules must be used for connections with stranded wires. |

## TECHNICAL DRAWINGS

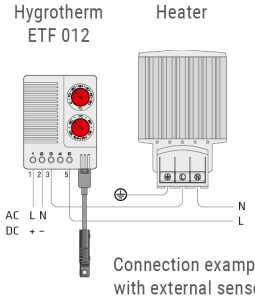



External sensor

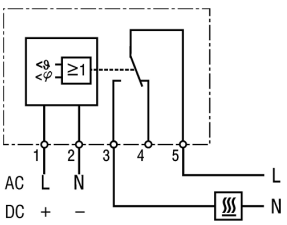



Connection example
with integrated sensor




Connection example
with external sensor

Connection diagram




Heater