

# ELECTRONIC HYGROTHERM

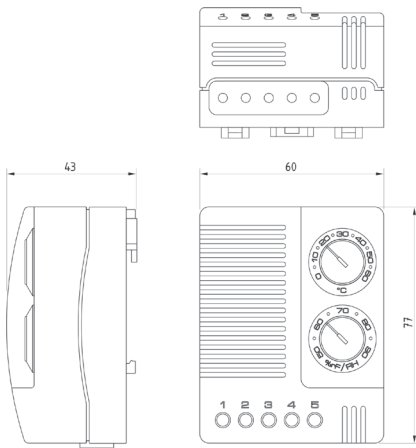
## ETF 012



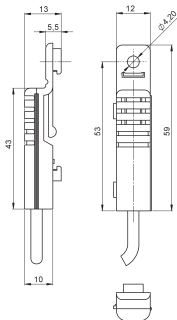
- > Temperature and humidity adjustable
- > Wide voltage range
- > Operating temperature down to -40 °C
- > High switching capacity
- > Status indicator (LED)

The electronic hygrotherm senses the ambient temperature and relative humidity in an enclosure with electric/electronic components and turns on a heater (or alternatively a fan) at either set point, helping prevent the formation of condensation in the enclosure. Due to its wide voltage range the hygrotherm can be utilised anywhere in the world. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation. The version with an external sensor can be installed anywhere in the control cabinet and enables precise measurement.

Dimensions ETF 012



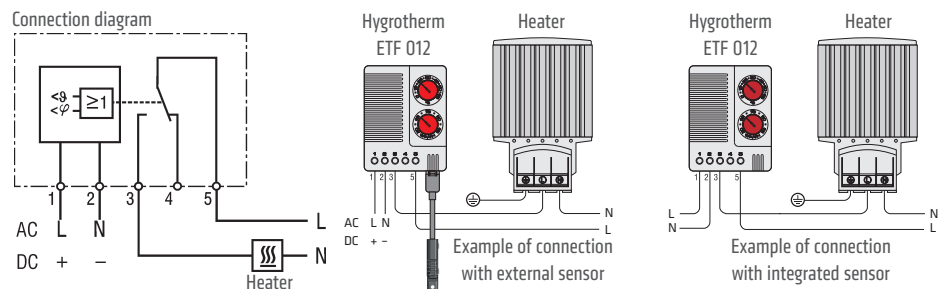
Dimensions external sensor



### TECHNICAL DATA

Switch difference (temperature)	2 K ( $\pm 1$ K tolerance) at +25 °C (+77 °F), 50 % RH
Switch difference (humidity)	4 % RH ( $\pm 1$ % tolerance) at +25 °C (+77 °F), 50 % RH
Reaction time (humidity)	~ 5 s
Contact type	change-over contact (relay)
Service life	VDE: NO/NC > 15,000 cycles UL: NO/NC > 30,000 cycles
Max. switching capacity (relay output)	AC 240 V, 10 (1.6) A <sup>1</sup> DC 60 V, 0.6 A
Max. inrush current	AC 30 A for 10 s
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5 Nm max.: rigid/stranded <sup>2</sup> wire 2.5 mm <sup>2</sup> (AWG 14)
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	77 x 60 x 43 mm
Weight	~ 0.2 kg
Fitting position	vertical
Operating/Storage temperature	-40 to +60 °C (-40 to +140 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	VDE, UL File No. E164102, EAC

<sup>1</sup> Switching of resistive load (switching of inductive load)  
<sup>2</sup> When connecting with stranded wires, wire end ferrules must be used.



Art. No. (integrated sensor)	Art. No. (external sensor, 1 m cable)	Art. No. (external sensor, 2 m cable)	Operating voltage	Setting range temperature	Setting range humidity
01230.0-00	01231.0-00	01231.0-01	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	0 to +60 °C	50 to 90 % RH
01230.9-00	01231.9-00	01231.9-01	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	+32 to +140 °F	50 to 90 % RH
01230.1-00	01231.1-00	01231.1-01	DC 24 – 48 V (min. DC 20 V, max. DC 60 V)	0 to +60 °C	50 to 90 % RH