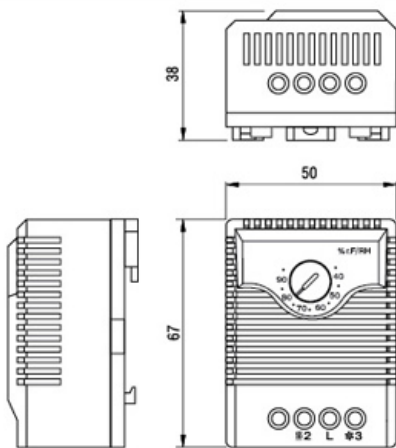




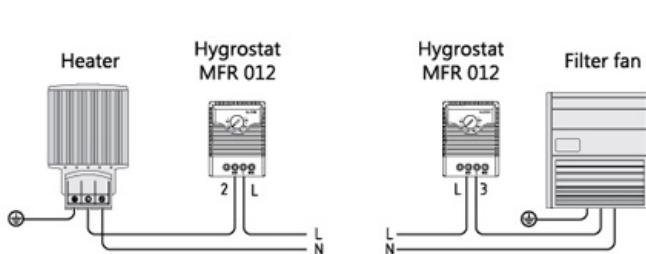
- Adjustable relative humidity
- Change-over contact
- High switching capacity
- Easily accessible terminals
- Clip fixing

The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65% is exceeded. In this way condensation and corrosion in enclosures with electric/electronic components is effectively prevented.

**Connection**

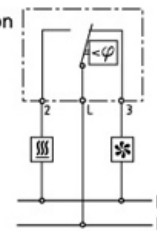


Switching error	4% RH (±3% tolerance)
Relative humidity range	35%-95%
Allow wind speed	15m/sec
Contact type	Changeover contact
Contact resistance	< 10m ohm
Service life	> 50,000 cycles
Mix. Switching capacity	20V AC/DC 100 mA
Max. Switching capacity	25 VAC, 5 A
Connection	3-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max.: rigid wire 2.5mm <sup>2</sup> , stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Installation	35mm DIN Installation guide
Casing	UL94 V-0 Plastic, light gray
Dimensions	67x50x38mm
Weight	about 60g
Fitting position	variable
Operating/Storage temperature	0 ~ +60°C (+32 ~ +140°F) / -20 ~ +80°C (-4 ~ +176°F)
Protection type	IP20



Examples of connection

**Connection diagram**



- Enclosure heater
- Filter fan, Cooling equipment, Signal device

Art. No.	Setting range
MFR 012	35 to 95% RH

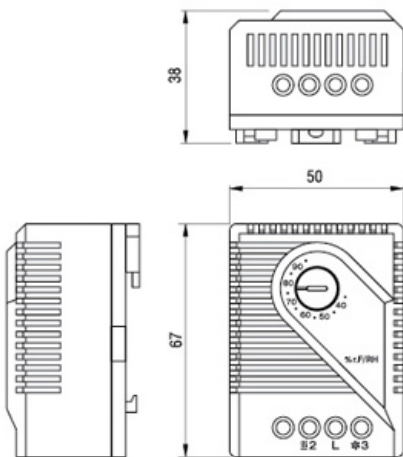
# MFR012-2 Mechanical Hygrostat



- Adjustable relative humidity
- Easily accessible terminals
- Change-over contact
- Clip fixing
- High switching capacity

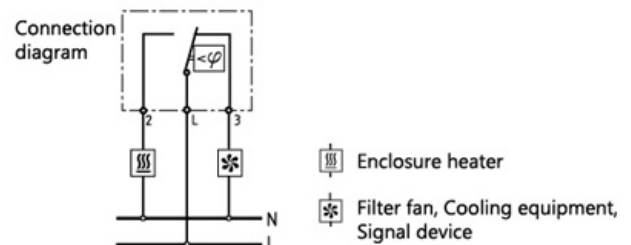
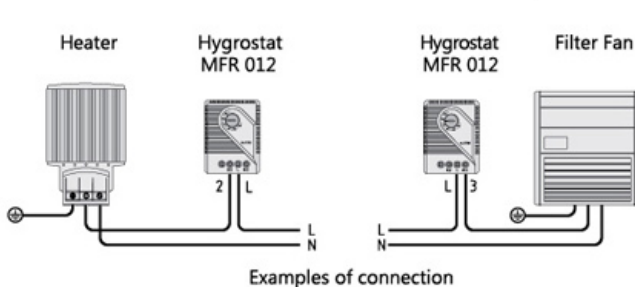
The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65% is exceeded. In this way condensation and corrosion in enclosures with electric/electronic components is effectively prevented.

## Connection



Switch difference*	4% RH (± 3% tolerance)
Permissible air velocity	15m/sec.
Contact type	change-over contact
Service life	>50,000 cycles
Mix. Switching capacity	250VAC, 5A 20WDC
Max. Switching capacity	5AAC
Connection	3-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max.:rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	67 x 50 x 38mm
Weight	approx. 60g
Fitting position	variable
Operating / Storage temperature	0 to +60°C (+32 to +140°F) / -40 to +60°C (-40 to +140°F)
Operating / Storage humidity	max. 90% RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164102

Heater/Thermostat/Hygrostat



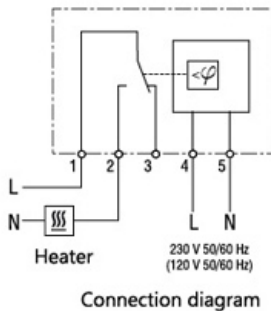
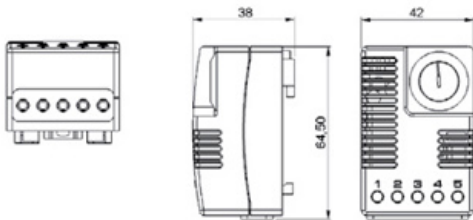
Art. No. MFR012-2	Setting range 35 to 95% RH
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- Temperature and humidity adjustable
- Optical operating display (LED)
- Clip fixing
- High switching capacity

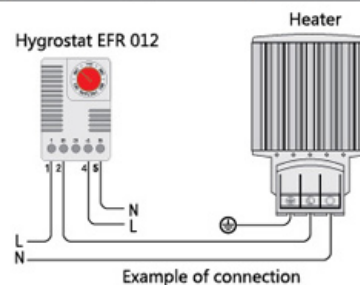
The electronic hygrotherm senses the ambient temperature and relative humidity in an enclosure with electric / electronic components and turns on a heater (or alternatively a fan) at either set point, helping prevent the formation of condensation in the enclosure. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation.

Size chart



Switch difference	5% RH ( $\pm 1\%$ RH tolerance) at 25°C/77°F (50% RH)
Reaction time	5 sec.
Contact type	change-over contact (relay)
Service life	> 50,000 cycles
Max. switching capacity (relay output)	240VAC, 8(1.6) A ; 120VAC, 8 (1.6)A; 100WDC at 24VDC
EMC	acc.to EN 55014-1-2, EN 61000-3-2, EN 61000-3-3
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5Nm max.:rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, ( EN50022 )
Casing	UL94 V-0, light grey
Dimensions	64.5 x 42 x 38mm
Weight	approx. 70g
Fitting position	vertical
Operating / Storage temperature	0 to +60°C(+32 to +140°F) / -20 to +70°C(-4 to +158°F)
Operating / Storage humidity	max. 90 % RH (non-condensing)
Protection type	IP20

Art. No.	Operating voltage	Setting range
01245.0-00	230VAC, 50/60Hz	40 to 90% RH
01246.0-00	230VAC, 50/60Hz	65% RH pre-set
01245.9-00	120VAC, 50/60Hz	40 to 90% RH
01246.9-00	120VAC, 50/60Hz	65% RH pre-set



Art. No.	Operating voltage	Setting range	Approvals
01245.0-00	230VAC, 50/60Hz	40 to 90% RH	CE
01246.0-00	230VAC, 50/60Hz	65% RH pre-set	CE
01245.9-00	120VAC, 50/60Hz	40 to 90% RH	CE
01246.9-00	120VAC, 50/60Hz	65% RH pre-set	CE

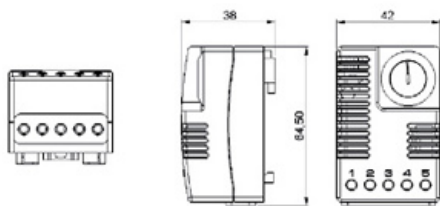
# ETR 011 Electronic Thermostat



- Large setting range
- Optical operating display (LED)
- Change-over contact
- Small hysteresis
- Clip fixing

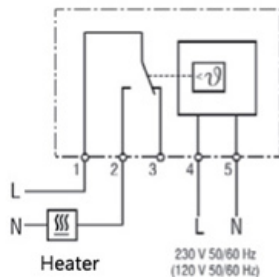
The electronic thermostat is used for controlling heating and cooling equipment, filter fans or signal devices. The thermostat registers the surrounding air and can switch both inductive and resistive loads via relay with change-over contact. The LED integrated in the adjustment knob is lit when the NC contact is closed (e.g. when a connected heater is operating).

Size chart

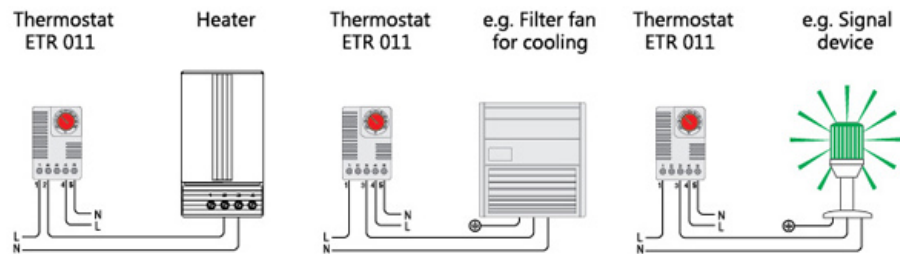


Switch difference	4K ( $\pm 1K$ tolerance) at 20 °C/68 °F
Sensor element	NTC
Reaction time	5 sec
Contact type	change-over contact (relay)
Service life	> 50,000 cycles
Max. switching capacity (relay output)	240VAC,8(1.6)A/120VAC,8(1.6)A 100WDC at 24VDC
Max. inrush current	16AAC for 10 sec.
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5Nm max.:rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0, light grey
Dimensions	64.5 x 42 x 38mm
Weight	approx. 70g
Fitting position	vertical
Operating / Storage temperature	-40 to +85°C (-40 to +185°F)
Operating / Storage humidity	max. 90 % RH (non-condensing)
Protection type	IP20

Art. No.	Operating voltage	Setting range
01131.0-00	230VAC,50/60Hz	-20 ~ 60°C



Connection diagram



Examples of connection

Art. No.	Operating voltage	Setting range	Approvals
01131.0-00	230VAC, 50/60Hz	-20 to 60°C	CE

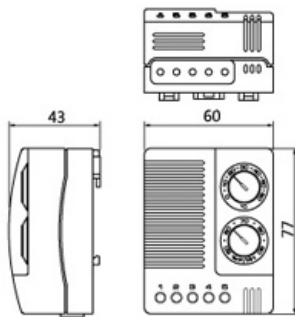
Heater/Thermostat/Hygrostat



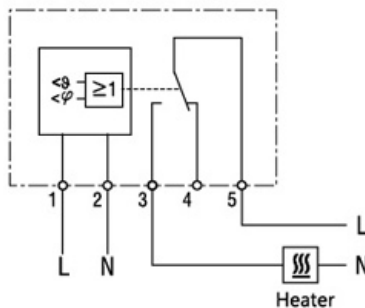
- Temperature and humidity adjustable
- High switching capacity
- Optical operating display (LED)
- Clip fixing

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. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation.

Size chart

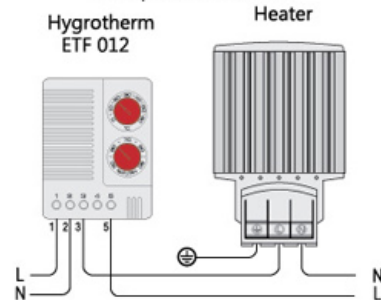


Connection diagram



Switch difference (temperature)	2K (±1K tolerance) at 25°C/77°F (50% RH)
Switch difference (humidity)	4% RH (±1% tolerance) at 25°C/77°F (50% RH)
Reaction time (humidity)	5 sec.
Contact type	change-over contact (relay)
Contact resistance	< 10m ohm
Service life	NC: 50,000 cycles NO: 100,000 cycles
Max. Switching capacity (relay output)	NC:240VAC,6(1)A
	NO:120VAC,8(1.6)A
	NC:240VAC,6(1)A
	NO:120VAC,8(1.6)A
	100WDC at 24VDC
EMC	acc.to EN 55014-1-2, EN 61000-3-2 EN 61000-3-3
Optical indicator	LED
Connection	5-pole terminal for 2.5mm <sup>2</sup> , clamping torque 0.5Nm max, rigid wire 2.5mm <sup>2</sup> stranded wire (with wire end ferrule) 1.5mm <sup>2</sup>
Mounting	clip for 35mm DIN rail, EN 60715
Casing	plastic according to UL94 V-0 light grey
Dimensions	77×60×43mm
Weight	approx. 0.2kg
Fitting position	vertical
Operating / Storage temperature	0 to +60°C ( +32°C to +140°F ) / -20°C to +80°C ( -4°C to +176°F )
Protection type	IP20

Example of connection



Art. No.	Operating voltage	Setting range temperature	Setting range humidity	Approvals
01230.0-00	230VAC, 50/60Hz	0 to +60°C	50 to 90% RH	CE
01230.9-01	120VAC, 50/60Hz	0 to +60°C	50 to 90% RH	CE