THE DATASHEET OF

RHT-1

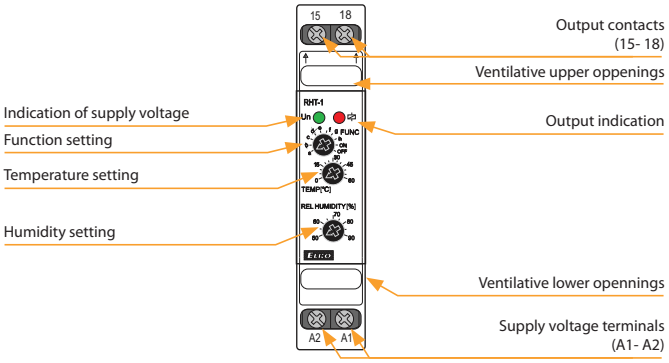
RHT-1 | Hygrothermostat with temperature range 0 .. + 60° C and humidity 50 - 90%

- Hygro-thermostat for temperature monitoring and regulation in range 0 °C to 60 °C (32 °F to 140 °F) and relative humidity monitoring and regulation in range 50 to 90 %.
- Possibility of setting of up to 8 conditions for contact switching and function permanently ON/OFF.
- Sensor is a part of the device - designated for measuring in switchboards.
- Function of sensor control (damage, disturbances,...).
- Fixed setting of temperature hysteresis at 2.5 °C (4.5 °F) and humidity at 4 %.

EAN code
RHT-1: 8595188137263

Technical parameters	RHT-1
Function:	hygro-thermostat
Supply terminals:	A1 - A2
Voltage range:	AC/DC 24 - 240 V (AC 50-60 Hz)
Input:	max. 1 VA/0.5 W
Max. dissipated power (Un + terminals):	2.5 W
Tolerance of voltage range:	–15 %; +10 %
Measuring circuit	
Temperature range:	0 .. 60 °C (32 .. 140 °F)
Humidity range:	50 - 90 %
Temperature hysterisis:	2.5 °C (4.5 °F)
Humidity hysterisis:	4 %
Sensor:	internal
Indication of sensor´s fault:	red LED flashing
Accuracy	
Setting accuracy (mechanical):	5 %
Long-term stability of humidity:	typical < 0.8 %/year
Output	
Number of contacts:	1x NO-SPST ($AgSnO_2$)
Current rating:	16 A/AC1, 10 A/24 V DC
Switched output:	4000 VA/AC1, 300 W/DC
Switched voltage:	250 V AC/24 V DC
Output indication:	red LED shines
Mechanical life:	10.000.000 ops.
Electrical life:	100.000 ops.
Other information	
Operational temperature:	–20 .. 60 °C (–4 .. 140 °F)
Storing temperature:	–30 .. 70 °C (–22 .. 158 °F)
Dielectrical strengh:	2.5 kV (supply-output)
Operational position:	vertical, with correct orientation
Mounting:	DIN rail EN 60715
Protection degree:	IP40 from front panel, IP10 on terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm^2):	max. 2x 2.5, max. 1x 4 with sleeve max. 1x 2.5, max. 2x 1.5 (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)
Weight:	63 g (2.2 oz.)
Standards:	EN 60255-1, EN 60255-26, EN 60255-27, IEC 60730-2-9

Device description



Functions

Choice of function	Relay switched under the following conditions		
A	T > Tset	or	RH > RHset
B	T < Tset	or	RH > RHset
C	T > Tset	or	RH < RHset
D	T < Tset	or	RH < RHset
E	T < Tset	and	RH < RHset
F	T > Tset	and	RH < RHset
G	T < Tset	and	RH > RHset
H	T > Tset	and	RH > RHset
ON	relay permanently ON		
OFF	relay permanently OFF		

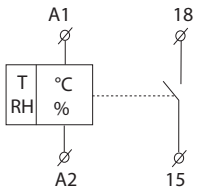
This device is designated for monitoring of parameters of environment (meaning temperature and relative humidity) in switchboards. It enables setting of eight conditions of constact closing and therefore it is usable for various types of load (e.g. fans, heating, air-conditioning, dehydrating units,...).

While installing it is neccessary to take into account the fact that hysterisis rises by persistence of measured values between sensor and ambient environment.

The device is equipped by sensor fault detection. In case of sensor fault, exceeding allowed limits (for temperature -30 °C/-22 °F and +80 °C/176 °F; for humidity 5 % and 95 %) or in case of faulty internal communcation higher than 50 % (due to e.g. high ambient disturbances) contact opens and sensor fault is indicated. Sensor fault doesn´t have influence on function permanently ON or pemanently OFF.

Note: In case the conditions for switching are not applied, relay is open.

Symbol



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