Panel Thermo-Hygrostat and Thermostats
### Panel Thermo-Hygrostat
- Small, compact size (17.5 mm wide)
- Electronic control
- 4 functions
- Nominal voltage 110…240 V AC/DC
- Temperature range from +10° to +60°C
- Humidity range up to 90%
- LED status indication contact ON
- 35 mm rail (EN 60715) mount

### Panel thermostat
- Small, compact size (17.5 mm wide)
- Snap action themostatic Bimetal sensor
- Wide temperature setting range
- Long electrical life
- 35 mm rail (EN 60715) mount

<table>
<thead>
<tr>
<th>Contact specification</th>
<th>7T.51</th>
<th>7T.81.0.000.240x</th>
<th>7T.81.0.000.230x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact configuration</td>
<td>1 NO</td>
<td>1 NC</td>
<td>1 NO</td>
</tr>
<tr>
<td>Rated current/Maximum peak current</td>
<td>A 10/20</td>
<td>10/20</td>
<td>10/20</td>
</tr>
<tr>
<td>Rated voltage/Maximum switching voltage</td>
<td>V AC 250/250</td>
<td>250/250</td>
<td>250/250</td>
</tr>
<tr>
<td>Rated load AC</td>
<td>VA 2500</td>
<td>2500</td>
<td>2500</td>
</tr>
<tr>
<td>Rated load AC15 (230 V AC)</td>
<td>VA 250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Single phase motor rating AC3 (230 V AC)</td>
<td>kW 1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Minimum switching load</td>
<td>mW (V/mA) 500 (12/10)</td>
<td>500 (12/10)</td>
<td>500 (12/10)</td>
</tr>
<tr>
<td>Standard contact material</td>
<td>AgNi</td>
<td>AgNi</td>
<td>AgNi</td>
</tr>
</tbody>
</table>

### Coil specifications
- Nominal Voltage V AC/DC 110…240
- Rated Power VA (50Hz)/W 1.8/0.44
- Operating range V AC/DC 88…264

### Temperature specifications *
- Setting range (ventilation) °C +10…+60 –20…+40 +0…+60 –20…+40 +0…+60
- Switch differential K 4 ± 2 7 ± 4 7 ± 4
- Setting accuracy full range K –1…+3 — —

### Humidity specifications **
- Setting range (humidity) % 50…90 — —
- Hysteresis % 4 ± 2 — —
- Setting accuracy % 5 — —

### Technical data
- Electrical life at rated load AC1 cycles 100 · 10^2 100 · 10^3 100 · 10^3
- Ambient temperature range °C –20…+60 –45…+80 –45…+80
- Protection category IP 20 IP 20 IP 20

* Measured with 0.3 K/min
** Measured with 0.5 %/min

For outline drawing see page 6
Ordering information

Example: 7T Series, Thermo-Hygrostat for temperature and humidity control, 110…240 V AC/DC, Multifunction, 35 mm rail (EN 60715) mount.

7T . 5 1 . 0 2 3 0 . 4 3 6 0

Series
Type
5 = Thermo-Hygrostatic control
8 = Temperature control
No. of contacts
1 = 1 contact
Voltage type
0 = AC/DC (only 7T.51)
0 = No operating voltage required
(only 7T.81)
Rated operating voltage
230 = 110…240 V (only 7T.51)
000 = No operating voltage required

Control function
60 = Multifunction (only 7T.51)
01 = −20…+40 °C (only 7T.81)
03 = 0…+60 °C (only 7T.81)

Contact configuration
3 = 1 NO contact
4 = 1 NC contact

Monitoring function
2 = Temperature control
4 = Temperature and Humidity, adjustable

Technical data

<table>
<thead>
<tr>
<th>Insulation</th>
<th>7T.51</th>
<th>7T.81</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dielectric strength between open contacts</td>
<td>V AC 1000</td>
<td>500</td>
</tr>
<tr>
<td>Dielectric strength between supply and contact</td>
<td>V AC 2000</td>
<td>—</td>
</tr>
</tbody>
</table>

Other data

| Screw torque | Nm | 0.5 |
| Max. wire size | solid cable | stranded cable |
| mm² | 1 x 2.5 | 1 x 1.5 |
| AWG | 1 x 12 | 1 x 16 |

Functions 7T.51

HT: RH > RHset OR Tamb > Tset

Power is permanently applied to the thermo-hygrostat.
The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset) OR if the ambient temperature (Tamb) is > of set temperature (Tset).

When contact is close, LED is ON

TH: RH > RHset OR Tamb < Tset

The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset) OR if the ambient temperature (Tamb) is < of set temperature (Tset).

When contact is close, LED is ON
**Functions 7T.51**

**HL: RH < RHset**

The contact 13-14 closes if the ambient humidity (RH) is < of set humidity (RHset).

When contact is close, LED is ON.

**HM: RH > RHset**

The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset).

When contact is close, LED is ON.

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**Functions 7T.81**

**Heating control** - Should the panel temperature fall below the (minimum) set temperature the contact will close to call for heat. The contact will open when this set temperature is exceeded.

**Ventilation control** - Should the panel temperature exceed the (maximum) set temperature then the contact will close to call for cooling. The contact will open when the temperature falls below this set temperature.
Wiring diagrams

7T.51

7T.81...230x

7T.81...240x

Outline drawings

Type 7T.51
Screw terminal

Type 7T.81
Screw terminal

Please see general technical information