UNI TEMP

UNI TEMP is a constant temperature controller. It is designed for mounting on mixing valve. It is also equipped with mounting kit for assembly on mixing valves of other manufacturers. Controller has a fixed angle rotation of 90° and possibility of manual control.

With DIP switches inside actuator is possible to set the following parameters:
- Direction of rotation (direct CW / inverse CCW)
- Different temperature ranges depending on the application
- Reaction factor x1/x10

It is intended for:
- maintaining a constant temperature in boiler heating circuit (protection against condensation),
- use in under floor heating applications, industrial processes, heat accumulators,
- use in domestic hot water systems or swimming pools (individual systems, SPA, public swimming pools).

Technical data

<table>
<thead>
<tr>
<th>Electrical data</th>
<th>Supply voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption</td>
<td>5VA</td>
</tr>
<tr>
<td>Connection cable</td>
<td>2x0.75mm², length 2m</td>
</tr>
<tr>
<td>Sensor type</td>
<td>KTY 81-210 PVC (cable length 1.5m), insulation: -30°C to 105°C (adapter set enclosed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functional data</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation time</td>
<td>73s/90°</td>
</tr>
<tr>
<td>Manual override</td>
<td>Manual or permanent with pushbutton (for maintenance purposes)</td>
</tr>
<tr>
<td>Position override</td>
<td>Handle position on controller cover</td>
</tr>
<tr>
<td>Recommended mounting position</td>
<td>All positions except upside down</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIP switch settings</th>
<th>1. Direction of rotation (direct CW / inverse CCW)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Different temperature ranges depending on the application (0°C..100°C, 60°C..85°, 20°C..70°C, 25°C..45°C)</td>
</tr>
<tr>
<td></td>
<td>3. Reaction factor x1/x10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety</th>
<th>Protection class</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of protection</td>
<td>IP44 (IEC 60529 (2001-02))</td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>0...+55°C</td>
<td></td>
</tr>
<tr>
<td>Media temperature</td>
<td>According to valve's specifications</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°...+80°C</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>Maintenance-free</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 0.7kg (without valve)</td>
<td></td>
</tr>
</tbody>
</table>

Enclosed mounting kit

FIRŠT (ROTOMIX, ROTOMIX G), ESBE (VRG, VRB), ACASO (TERMOMIX), BARBERI, FEROTERM, PAW, EURONORM, ESBE, IMP, DANFOSS, BESSER, SELTRON, LOVATO, TUXHORN, STRAWA, CIMBERIO
UNI TEMP

Electrical installation:

**UNI TEMP 24VAC**

- Voltage: 24VAC, 50Hz
- Time: 73s/90°
- Torque: max. 15Nm

**UNI TEMP 230VAC**

- Voltage: 230VAC, 50Hz
- Time: 73s/90°
- Torque: max. 15Nm

The equipment must be connected to the electric power supply in a manner which complies with the legal requirements applicable at the place of use.

Dimensions:

- **UNI TEMP 24VAC**
  - Height: 125 mm
  - Width: 78 mm
  - Depth: 50 mm

- **UNI TEMP 230VAC**
  - Height: 94 mm
  - Width: 94 mm
  - Depth: 94 mm

Order information:

<table>
<thead>
<tr>
<th>Code</th>
<th>Article</th>
<th>Voltage</th>
<th>Time</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>21135</td>
<td>UNI TEMP 24VAC</td>
<td>24VAC, 50Hz</td>
<td>73s/90°</td>
<td>max. 15Nm</td>
</tr>
<tr>
<td>21136</td>
<td>UNI TEMP 230VAC</td>
<td>230VAC, 50Hz</td>
<td>73s/90°</td>
<td>max. 15Nm</td>
</tr>
</tbody>
</table>

Enclosed mounting kit for following mixing valves: FIRŠT (ROTOMIX, ROTOMIX G), ESBE (VRG, VRB), ACASO (TERMOMIX), BARBERI, FEROTERM, PAW, EURONORM, ESBE, IMP, DANFOSS, BESSER, SELTRON, LOVATO, TUXHORN, STRAWA, CIMBERIO.
Mounting on the valve:

**Rotomix F3**
**Rotomix F4**

**Rotomix F3U**
**Rotomix F4U**

**Firšt (Rotomix G), Esbe, Acaso (Termomix), Barberi, Ferotherm, Paw, Euronorm, Imp, Danfoss, Besser**

---

**Mounting kit**

<table>
<thead>
<tr>
<th>Code</th>
<th>Enclosed mounting kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>58024</td>
<td>Firšt (Rotomix, Rotomix G), Esbe (VRG, VRB), Acaso (Termomix), Barberi, Ferotherm, Paw, Euronorm, Esbe, Imp, Danfoss, Besser, Seltro, Lovato, Tuxhorn, Strawa, Cimberio.</td>
</tr>
</tbody>
</table>

By special request

<table>
<thead>
<tr>
<th>Code</th>
<th>Enclosed mounting kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>58025</td>
<td>Seltro, Lovato, Paw</td>
</tr>
<tr>
<td>58026</td>
<td>Lazzari, Landis</td>
</tr>
<tr>
<td>58027</td>
<td>Honeywell MS</td>
</tr>
<tr>
<td>58028</td>
<td>Siemens</td>
</tr>
<tr>
<td>58029</td>
<td>MUT</td>
</tr>
<tr>
<td>58030</td>
<td>W.I.L.B</td>
</tr>
<tr>
<td>58031</td>
<td>Centra</td>
</tr>
<tr>
<td>58032</td>
<td>Meibes, Wita, Oventrop, Holter Hora BR80 SMD/SMV</td>
</tr>
<tr>
<td>58033</td>
<td>TehnoPlant, Exelsior, Kramer, De Pala</td>
</tr>
</tbody>
</table>
### DIP switch settings

1. With DIP switches inside actuator is possible to set the following parameters:
   - **DIP 1**: Direction of rotation (direct CW / inverse CCW)
   - **DIP 2,3**: Different temperature ranges depending on the application (0°C..100°C, 60°C..85°C, 20°C..70°C, 25°C..45°C)
   - **DIP 4**: Reaction factor

   **NOTE** – when changing DIP1 position, controller calibration is carried out

---

**Xp parameter - a proportional control range of valve**

- **Trimmer Xp** is located inside controller.
- To open the controller it is necessary to loosen the screws on the cover (3x), and handle screw (1x).

**Xp parameter - a proportional control range of valve (from 10K to 100K)**
Controller behavior diagram as a function of temperature:

Example:
- Desired temperature: 50°C
- Xp parameter – proportional control range of valve (10K)

When the temperature is less than 45°C, controller gives continuous signal for opening mixing valve.

When the temperature is between 45°C and 50°C, controller pulsating opens mixing valve. Nearer the desired temperature (50°C), shorter pulses.

When the temperature is between 50°C and 55°C, controller pulsating closes mixing valve. Nearer the desired temperature (50°C), shorter pulses.

When the temperature is higher than 55°C, controller gives continuous signal for closing mixing valve.

Manual control:

Note: when the button for manual operation is in <MAN> position, controller stays in temporary position irrespective of control signal.
**Recommended mounting position**

- Solid fuel boiler - Maintain a constant temperature in heating circuit
- Maintain a constant temperature of heat reservoir
- Solar pool heating - Maintain a constant temperature of heating circuit

**Examples:**

- Maintain a constant temperature in sanitary water circuit
- Floor heating - Maintain a constant temperature of heating circuit
- Solar pool heating - Maintain a constant temperature of heating circuit

In compliance with standards:

- EN 55014-1:2006
- EN 61000-3-2:2006
- EN 61000-3-3:2006
- EN 62233:2008
- ZEK 01.2-08

We reserve the right to modify the instructions and the technical data of the product without prior notice.

**Safety notes:**

- The actuator has been designed for use in stationary heating, ventilation and air-conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution power supply voltage – 24VAC.
- It may only be installed by suitably trained personnel. All applicable legal or institutional installation regulations must be complied with.
- The device must be protected from moisture and is not recommended for use in external applications.
- The device may only be opened at the manufacturer’s site. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
Examples:

- Floor heating regulation from radiator heating circuit

Safety notes:

- The actuator has been designed for use in stationary heating, ventilation and air-conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Caution: power supply voltage – 24VAC.
- It may only be installed by suitably trained personnel. All applicable legal or institutional installation regulations must be complied with.
- The device must be protected from moisture and is not recommended for use in external applications.
- The device may only be opened at the manufacturer’s site. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

In compliance with standards

All our products fulfill the essential safety and protection requirements for CE conformity marking according to the following directives:


In compliance with standards:

- EN 55014-1:2006
- EN 61000-3-2:2006
- EN 61000-3-3:2006
- EN 62233:2008
- ZEK 01.2-08

We reserve the right to modify the instructions and the technical data of the product without prior notice.