**Description of function:**

The temperature valve TAVZ 2.1 is a release valve, which, on the bursting of a thermo bulb, taps a CO₂ bottle, allows the CO₂ to flow to the outlet CA and the outlet CZ will be ventilated by an integrated quick release valve. The thermo bulb bursts at the specified rated temperature with a tolerance of -3°C/+8°C.

In the non-release position the outlets CA and CZ are ventilated by the integrated quick release valve. If there is pressure on the input VA or VZ (by ventilation- or alarmbox), the input will be connect to the outlet CA or CZ.

**Releasing:**

1) Thermal releasing via bursting of the thermo bulb (all versions)
2) Option: Pneumatic releasing via pneumatic drive piston PTK 1.01 (must be specified with order)
3) Option: Electric releasing via electric drive piston ETK 1.0 (must be specified with order)

**Mounting:**

1) Join connections as follows:
   - CA ............ cylinder OPEN
   - VA .......... vent line or CO₂ line OPEN
   - CZ ............. cylinder CLOSE
   - VZ .......... vent line or CO₂ line CLOSE
   - PTK ........... join PTK-connection with external releasing device (option)
   - ETK ........... join electric connection with external releasing device (option)
2) When using a CO₂ one-way bottle the TAVZ must be installed as drawn adhering to the inflow direction (bottle screwed in from the top)
3) For our 1/8” connection threads we recommend to use screw connections with taper thread and to seal these in position using a liquid sealant (e.g. Loctite 243). It must be ensured that the liquid sealant is applied to the external thread.
4) We recommend using CO₂ one-way bottles according to drawing No. 03.023.00.* and point out that the VdS-recognition is valid only with these bottles.

**Commissioning:**

1) Fully unscrew knurled nut.
2) If Option "Pneumatic/electric drive piston" is available, check if PTK/ETK tappet is fully retracted via spring resetting (PTK/ETK-connection must be pressureless/de-energized).
3) Tighten knurled nut while at the end of the clamping travel (noticeable resistance) the knurled nut has to be turned in approximately 1/2 a turn in addition.
4) Fully tighten knurled nut.
5) Check if the piercing needle is positioned behind the piercing surface of the bottle screw-in thread.
6) Lightly grease the O-ring in the bottle screw-in thread.
7) Check if the reset button is in the correct position.
8) Screw in CO₂-bottle.
9) After releasing, repeat process.

**Caution:**

- After thermo valve release, it is absolutely necessary, to unscrew the knurled nut first and CO₂ bottle after.
- Check the compatibility of the thermo bulb and CO₂ bottle.
- Dirt is built up by common use of the thermo valve. Therefore it must be cleaned free of deposits (dirt, fragments, etc.) in the thermo bulb holder and in the bottle thread.

**Technical data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>max. static housing pressure</td>
<td>60 bar</td>
</tr>
<tr>
<td>max. dynamic operating pressure</td>
<td>60 bar</td>
</tr>
<tr>
<td>nominal width of valve</td>
<td>3.0 mm</td>
</tr>
<tr>
<td>nominal width of piercing needle</td>
<td>3.0 mm</td>
</tr>
<tr>
<td>ambient temperature range</td>
<td>-25°C ~ +110°C</td>
</tr>
<tr>
<td>releasing pressure PTK (option)</td>
<td>10 bar</td>
</tr>
<tr>
<td>VdS approval no.</td>
<td>01 597018</td>
</tr>
</tbody>
</table>

**Scope of supply:**

Screw connections, thermo bulb and CO₂-bottle are NOT included in the scope of supply.

**Diagram without PTK 1.01:**

**Diagram with PTK 1.01:**

**Types:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Bottle screw-in threads A</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAVZ 2.1</td>
<td>1/2” UNF (standard)</td>
</tr>
<tr>
<td>TAVZ 2.1-M18x1.5</td>
<td>no VdS-certificate</td>
</tr>
<tr>
<td>TAVZ 2.1-M-PTK</td>
<td>W21.8x1.14&quot;</td>
</tr>
</tbody>
</table>

**Diagram without PTK 1.01:**

**Diagram with PTK 1.01:**

**Only use certified CO₂-bottle!**