

**1. Intended use**

VALVEX thermostatic heads are used in any type of central heating systems as radiator valve controlling elements. Automatic control of temperature in premises enables User's setting an individual comfort level (condition) at significant saving of heat energy and hence heating cost reduction.

The following two head types are available: **GZ.03, GZ.03A and GZ.04:**

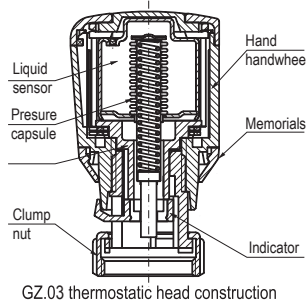
TYPE	INTENDED USE
<b>GZ.03</b>	Used to control VALVEX ZT22 thermostatic radiator valves
<b>GZ.03A</b>	Used to control compact radiators with HEIMEIER valve inserts (radiator manufacturer list is included in the assembling instructions)
<b>GZ.04</b>	Intended for installation in places, where free air flow around the head does not occur; interacts with thermostatic radiator valves ZT22 of VALVEX S.A. make.

**2. Operation**

Upon a change in the room temperature the liquid contained in the head's sensor changes its volume causing a motion of the pressure capsule. The motion is transferred to the valve head. The valve head's dislocation against the valve seat increased, decreases or cuts-off hot water flow through the radiator. Automatic control of the heating water flow depending on air temperature in the heated premises ensures unquestionable benefits for the User.

Using in a central heating system of a set of a thermostatic head together with a thermostatic radiator valve shall enable:

- significant (up to 25%) heating cost reduction,
- enhanced „heat comfort”,
- avoided overheating of premises,
- maintained fixed pre-set temperature in heated premises, regardless of outdoor temperature changes,
- use of „free” heat given up by lighting, electrical equipment, sunlight and people inside.



GZ.03 thermostatic head construction

**3. Technical specification of GZ.03, GZ.03A and GZ.04 heads**

PARAMETERS	VALUE
Lowest set value	279 K (6°C) marked*
Temperature setting range (in head's surroundings)	279 K to 301 K (6°C to 28°C)
Highest allowable static pressure	1 MPa
Highest allowable pressure drop	0,06 MPa
Maximum heating water temperature	398 K (125°C)
Hysteresis (sensitivity)	0,3 K
Pressure gradient effect	0,8 K
Heating water temperature effect	1 K
Closure time	22 min.
Head resistance to premises overheating	313 K (40°C)
Transportation temperature	253 K to 323 K (-20°C to +50°C)

**4. Temperature setting**

The following room temperatures correspond to individual temperature setting of GZ.03, GZ.03A and GZ.04 thermostatic heads:

Setting	Room temperature ca.	Premises type
5	30	Swimming pool
4	26	Bathroom
3	22	Study
2	21	Living room, dining room
1	20	Children's room
*	18	Bedroom, kitchen
	16	Hobby room, corridor
	14	Nighttime temperature reduction
	11	Staircase, entrance enclosure
	8	Basement
	6	Anti-freezing protection

It's been known from many years' experience that maintaining the foregoing temperatures in each premises is a reasonable compromise between heat comfort and energy saving.

By turning the head handwheel a chosen point is set on the scale that corresponds to the desired temperature, just in front of the indicator. After ca. 1 hour the temperature shall be checked in the room's representative spot using a room thermometer. If the room temperature slightly differs from that set on the setter, the setting should be adjusted accordingly (i.e. gradually increased or decreased and the room temperature re-checked).

**Note:** Once the setting is selected, so-called memoir should be shifted so that the tag of the memoir is located opposite the selected setting. The memoir enables quick and precise re-setting of set temperature in a room, after the setting of the head has been changed to another temperature.

**It should be remembered that:**

**Turning counter-clock wise** increases the room temperature.

**Turning clock wise** decreases the room temperature.

**Anti-freezing protection (max. to the right)** – if you intend to leave the premises for a longer time in winter, the thermostatic head should be turned up to the position that protects against freezing – marked \*. The \* setting guarantees that with the heating system working the room temperatures will not fall below 5°C, and hence the system will be protected against freezing. Using this setting is recommended also in a room that is not currently used.

**Proper airing**

The thermostat quickly reacts to cold air inflow. Short and intense airing is therefore recommended. If a longer airing is required, the thermostatic head handwheel should be turned right as far as possible. Previously selected temperature can be easily reset after airing thanks to so-called „memoir” previously adjusted.

**Anti-theft protection**

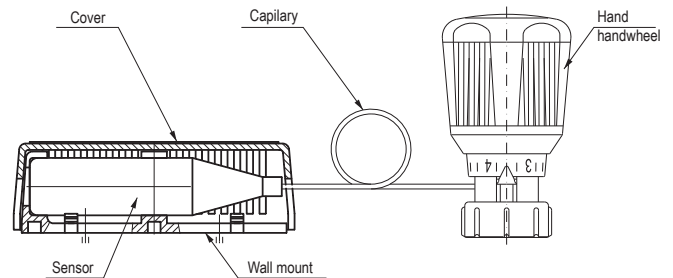
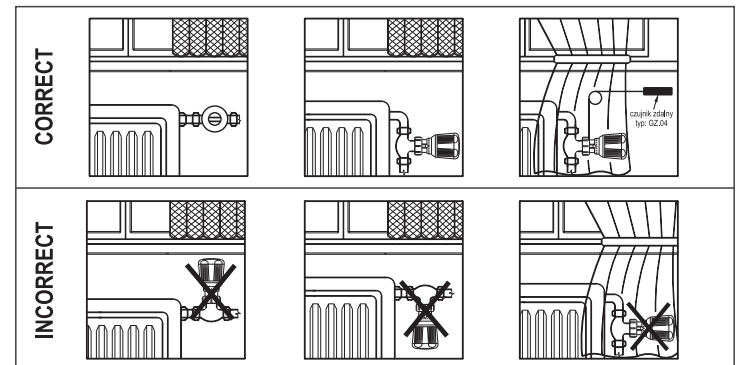
VALVEX offer also includes special clamps (cat. no. JFA-4413.45.0), protecting the GZ.03 and GZ.04 heads against unintended removal.

**5. Assembling instructions**

TYPE	ASSEMBLING
<b>GZ.03</b>	<ul style="list-style-type: none"> <li>✓ unscrew the protective cap from the previously mounted ZT22 thermostatic valve,</li> <li>✓ turn the head handwheel counter-clock wise as far as possible (i.e. to position „5”),</li> <li>✓ put the head on the ZT22 valve in such a manner that the setting indicator is clearly visible, be sure that protrusions in the head base fit precisely into matching recesses in the ZT22 valve flange,</li> <li>✓ screw down the clamp nut with fingers with no additional tools,</li> <li>✓ check the assembly by turning the head handwheel from left to right,</li> <li>✓ select setting that corresponds to the desired room temperature,</li> </ul>
<b>GZ.03A</b>	<ul style="list-style-type: none"> <li>✓ turn the head handwheel counter-clock wise as far as possible (i.e. to position „5”),</li> <li>✓ put the head on the HEIMEIER valve insert in such a manner that the setting indicator is clearly visible,</li> </ul> <p><b>Note!</b> Manufacturers of radiators with HEIMEIER valve inserts: <i>Biasi, Celikpan, Demrad, Dianorm, Diatherm, Henrad, Kermi, Korado, Manaut, Purmo, Radson, Stelrad, Superia, U.S. Steel, Veba.</i></p> <ul style="list-style-type: none"> <li>✓ screw down the clamp nut with fingers with no additional tools,</li> <li>✓ check the assembly by turning the head handwheel from left to right,</li> <li>✓ select setting that corresponds to the desired room temperature</li> </ul>
<b>GZ.04</b>	<ul style="list-style-type: none"> <li>✓ fasten the wall holder with expansion plugs in the wall</li> </ul> <p><b>Caution:</b> The place selected should not be influenced by direct solar radiation or cold air inflow. It is necessary to pay attention that the sensor is not covered with curtain, radiator enclosure, etc.,</p> <ul style="list-style-type: none"> <li>✓ put the sensor into holder and fasten the enclosure of the sensor</li> <li>✓ straighten the necessary part of capillary from the sensor side, needed for connection with valve, while leaving the rest uncoiled,</li> <li>✓ undo protective cap from previously installed ZT22 thermostatic valve,</li> <li>✓ turn the knob of the head counterclockwise home (to position „5”)</li> <li>✓ put the head onto ZT22 valve so that the adjustable indicator is well visible, while paying attention that protrusions in the base of the head are precisely located in adequate hollows in ZT22 valve flange;</li> <li>✓ finger-tighten fixing nut, without use of any additional tools,</li> <li>✓ check proper installation by turning the head knob from left to right side stop,</li> <li>✓ select the setting corresponding to required temperature in the room.</li> </ul> <p><b>Caution:</b> Pay attention during installation so that not to damage (kink) the capillary.</p>

**It should be remembered that:**

- the head must be in absolutely horizontal position (assembly instruction),
- the head should be exposed to neither sunlight, nor any other heat source,
- the head should not be covered with curtains, covers, furniture etc. because this creates a heat build-up zone, where the thermostat can not sense the representative room temperature, and therefore can not control it properly. In such circumstances use of a VALVEX GZ.04 head with a remote sensor (2m-long capillary) is recommended. Outletting the temperature sensor outside, off the radiator range, will eliminate the adverse phenomenon of heat's direct effect on the sensor where air circulation around the thermostat is disturbed (by the aforementioned curtains or radiator casing),
- after the heating season it is recommended to set the head handwheel to „5” position,
- the head may be cleaned with lukewarm water and delicate household cleaning agents.



**Note:** Performance, technical parameters and connection dimensions of GZ.04 head are the same as in case of GZ.03 head.

## GUARANTEE CARD

Product <b>THERMOSTATIC HEAD type: GZ.03, GZ.03A and GZ.04</b>	Signature of Quality Control
<p>Terms of guarantee:</p> <ul style="list-style-type: none"> <li>✓ The product is guaranteed by manufacturer for 10 years, starting from date of sale.</li> <li>✓ Defects revealed within guarantee period will be repaired free of charge within 14 business days starting from date of claim submission.</li> <li>✓ Notification of defect or damages are received by Claim Handling Store of VALVEX S.A. (phone no. (018) 26 93 249 ext. 333 or 222).</li> <li>✓ In order to complete the guarantee repair, the faulty product should be delivered to the Claim Handling Store with description of the claim reason and copy of proof of purchase, with stamp of retail store where the product was purchased and legibly printed purchase date.</li> <li>✓ The guarantee does not cover part that subject to wear and tear during operation period, failures resulting from installation and utilisation in a manner incompatible with instruction, defects resulting from mechanical or thermal damages, or bearing traces of user interventions.</li> <li>✓ The guarantee for purchaser will be null and void when: <ul style="list-style-type: none"> <li>guarantee card is lost or destroyed</li> <li>willful repairs or dismantling are done</li> <li>the product is used improperly or incompatibly with the instruction</li> </ul> </li> </ul> <p style="text-align: center;"><b>Quality Assurance System compatible with ISO 9001 standard</b></p>	

**VALVEX thermostatic heads of GZ.03, GZ03A and GZ.04 types are guaranteed for 10 years.**