

### 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.05** and **GZ.05A**:

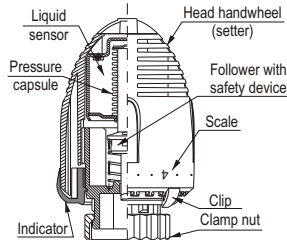
TYPE	INTENDED USE
<b>GZ.05</b>	Used to control VALVEX ZT22 thermostatic radiator valves
<b>GZ.05A</b>	Used to control compact radiators with HEIMEIER valve inserts (radiator manufacturer list is included in the assembling instructions)

### 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.05 thermostatic head construction

### 3. Technical specification of GZ.05 and GZ.05A 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.05 and GZ.05A thermostatic heads:

Setting	Room temperature ca.	Premises type
5	28	Swimming pool
4	24	Bathroom
3	22	Study
3	20	Living room, dining room
3	18	Bedroom, kitchen
2	16	Hobby room, corridor
2	14	Nighttime temperature reduction
1	11	Staircase, entrance enclosure
1	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).

#### 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.

### Setting limits

The head handwheel is equipped with two clips: blue and red. Using these the User may individually:

- **limit temperature setting range**, e.g. from 16°C to 24°C, the blue clip should be then inserted into the seat located just in front of position „2”, whereas the red clip – in front of position „4”, and the setting indicator should be located between the clips,
- **block a selected temperature setting**, e.g. 20°C, i.e. position „3” – position „3” should be set with the head handwheel in front of the indicator, and then on both sides of the indicator the following should be inserted into the closest seats: on the left – the blue clip, on the right – the red clip.

The clips' factory settings are in two special seats on the handwheel's perimeter marked on the scale as resting (garage) marked – as.

**Caution:** Thermostatic heads of GZ.05-16/28 (4440.40.0), GZ.05A-16/28 (4440.41.0), GZ.05-16/28 types with anti-robbery protection (4440.42.0) and GZ.05A-16/28 type with anti-robbery protection (4440.43.0) are equipped with fixed lower temperature limit (factory built-in) on their setting range position „2” (~16°C).

### 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. If a selected setting has been previously blocked, first the blue clip (on the indicator's left side) should be pulled out and the red clip left where it is (on the indicator's right side), and then the thermostatic head handwheel turned right as far as possible. After airing the earlier selected temperature may be easily set owing to the red clip left in its place.

### Anti-theft protection

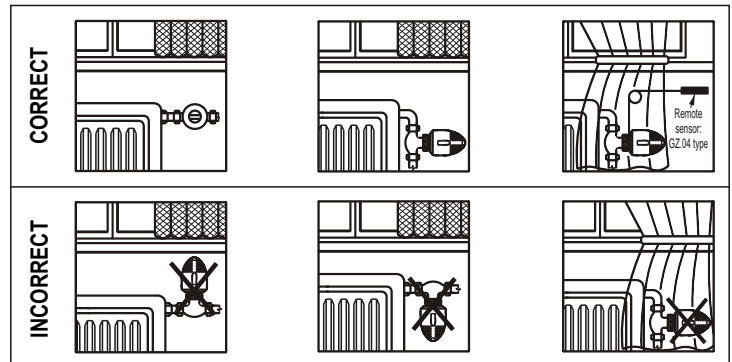
Thermostatic heads GZ.05 and GZ.05A with optional protection against unauthorised disassembly by a clamp nut with two symmetrically located M3 screws are also available from the VALVEX product catalogue.

### 5. Assembling instructions

TYPE	ASSEMBLING
<b>GZ.05</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> <li>✓ if needed limit the temperature setting range following the „Temperature setting limits” instructions,</li> </ul>
<b>GZ.05A</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, be sure that protrusions in the head base fit precisely into matching recesses in the HEIMEIER valve flange.</li> </ul> <p><b>Note!</b> Manufacturers of radiators with HEIMEIER valve inserts: <i>Biasi, Celikpan, Demrad, Dianorm, Diathem, 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, if needed – limit the temperature setting range following the „Temperature setting limits” instructions.</li> </ul>

#### 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.



<b>VALVEX S.A., ul. Nad Skawą 2, 34-240 JORDANÓW</b>		Issue date:	04.2008
CENTRAL OFFICE PHONE NO. (018) 269 32 20, 269 32 49; FAX: (018) 269 32 11		No.	4440.00/IO
Complaints Section: 800 192 922, e-mail: valvex@valvex.pl, info@valvex.pl			

GUARANTEE CARD	
Product <b>THERMOSTATIC HEAD type: GZ.05 and GZ.05A</b>	Quality control signature
<p><b>Guarantee terms and conditions:</b></p> <ul style="list-style-type: none"> <li>✓ The Manufacturer grants herewith guarantee for the period of ten years since the sale date.</li> <li>✓ Any defect disclosed in the guarantee period shall be corrected free of charge within 14 working days after the defect notice date.</li> <li>✓ Defect or damage notices will be received by the VALVEX SA Claim Warehouse (phone 018 26 93 249 ext. 333).</li> <li>✓ A defected product must be delivered for guaranteed repair to the Claim Warehouse with a statement of claim grounds and a copy of the purchase document with an eligible stamp of the selling outlet and an eligible purchase date indication.</li> <li>✓ The guarantee does not cover any part normally torn and worn in operation, any defect caused by assembly in operation non-compliant with the instructions, any defect with traces of mechanical and/or thermal damage, and/or user intervention.</li> <li>✓ The Buyer shall loose any and all rights under the guarantee in the event of:                             <ul style="list-style-type: none"> <li>– the guarantee card's loss or damage,</li> <li>– self-willed repair and/or disassembly,</li> <li>– inappropriate or non-compliant with the instructions operation.</li> </ul> </li> </ul>	Retail outlet stamp and worker's signature Sales date
<b>THE QUALITY ASSURENCE SYSTEM IS ISO 9001 COMPLIANT</b>	