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**Member of EOTA**

## European Technical Assessment

**ETA-18/0787**

**SFK, VISION**

**Thermostatic radiator valves**

**Termostatyczne zawory grzejnikowe**



Europejska Organizacja ds. Oceny Technicznej

European Organisation for Technical Assessment



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## European Technical Assessment

**ETA-18/0787  
of 28/09/2018**

### General Part

**Technical Assessment Body issuing the European Technical Assessment**

Instytut Techniki Budowlanej

**Trade name of the construction product**

SFK, VISION

**Product family to which the construction product belongs**

Thermostatic radiator valves

**Manufacturer**

Vario Term Sp. z o.o.  
ul. Ogórkowa 96  
04-998 Warszawa, Poland

**Manufacturing plant**

Vario Term Sp. z o.o.  
ul. Ogórkowa 96  
04-998 Warszawa, Poland

**This European Technical Assessment contains**

8 pages including 1 Annex which form an integral part of this Assessment

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of**

European Assessment Document EAD 280005-00-0702 "Thermostatic radiator valves "

## **Specific Part**

### **1 Technical description of the product**

Complete thermostatic radiator valves consists of:

- thermostatic head assembly,
- valve body assembly.

This ETA applies to two thermostatic radiator valves:

- SFK consisting of thermostatic head assembly PRESTIGE GS.02 and valve body assembly SFK 15,
- VISION consisting of thermostatic head assembly PRESTIGE GS.02 and valve body assembly VISION.

The temperature sensor inside the head is filled with liquid, which increases and decreases its volume as the room temperature changes, the motion of the bellows inside the sensor is transmitted by the pusher (component of the thermostatic head assembly) to the valve stem. As the temperature in the room increases, the valve throttles the flow.

The valve automatically stops the heat flow when the set temperature is reached.

The spring in the valve insert retracts the valve stem when it shrinks - a drop in the room temperature - increasing flow.

The construction of thermostatic radiator valves is shown in Annex A.

### **2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)**

Thermostatic valves are intended to use in individual radiators (panel, aluminium, bathroom and decorative radiators) with side or bottom supply. Thermostatic radiators valves are intended to be mounted in the wet domestic central heating systems with forced circulation of the heating medium at temperature lower than 120°C, maximum working pressure 1 MPa, and the pressure difference not more than 0,06 MPa.

The provisions made in this European Technical Assessment are based on an assumed working life of the thermostatic radiator valves of 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer or the Technical Assessment Body, but should only be regarded as means for choosing the right products in relation to the expected economically reasonable working life of the works.

### **3 Performance of the product and references to the methods used for its assessment**

#### **3.1 Safety in case of fire (BWR 2)**

##### **3.1.1 Reaction to fire**

No performance assessed.

### 3.2 Safety and accessibility in use (BWR 4)

Table 1

Essential characteristics	Performance	
	SFK valve	VISION valve
Resistance to pressure, leak-tightness of valve body assembly	pass	pass
Leak-tightness of valve closed mechanically by means of the protection cap	pass	pass
Leak-tightness of stem seal	pass	pass
Resistance of valve body to a bending moment	pass	pass
Resistance of temperature selector to a torque	pass	pass
Resistance of temperature selector to a bending moment	pass	pass
Exchange of the stem seal	pass	pass
Nominal flow rate and flow rate at S-1 K	$q_{m N} = 154 \text{ kg/h}$ ; flow rate at S-1 K $\leq 70 \%$ of nominal flow rate	$q_{m N} = 166 \text{ kg/h}$ ; flow rate at S-1 K $\leq 70 \%$ of nominal flow rate
Characteristic flow rate at the minimum and maximum setting of the temperature selector	$q_{m S \text{ min}} = 164 \text{ kg/h}$ ; $q_{m S \text{ max}} = 166 \text{ kg/h}$	no performance assessed
Characteristic flow rate	no performance assessed	no performance assessed
Sensor temperature at the minimum and maximum setting of the temperature selector	$t_{s \text{ min}} = 8,60^{\circ}\text{C}$ ; $t_{s \text{ max}} = 30,71^{\circ}\text{C}$	no performance assessed
Hysteresis at nominal flow	0,33 K	0,17 K
Differential pressure influence	< 1 K	< 1 K
Influence of the static pressure	0,34 K	0,06 K
Temperature difference between temperature point S and the closing and opening temperature	0,35 K	0,01 K
Influence of ambient temperature	no performance assessed	no performance assessed
Water temperature effect	1,23 K	no performance assessed
Response time	16 min	16 min
Mechanical endurance	the sensor temperatures at nominal flow rate before and after mechanical endurance test vary of 0,63 K; the nominal flow rate before and after mechanical endurance test vary of 4%.	no performance assessed

Table 1

Essential characteristics	Performance	
	SFK valve	SFK valve
Thermal endurance	the sensor temperatures at nominal flow rate before and after thermal endurance test vary of 0,54 K; the nominal flow rate before and after mechanical endurance test vary of 1%.	no performance assessed
Temperature resistance	the sensor temperatures at nominal flow rate before and after the temperature resistance test vary of 0,25 K; the nominal flow rate before and after temperature resistance test vary of 9%	no performance assessed

### 3.3 Protection against noise (BWR 5)

#### 3.3.1 Noise emission

No performance assessed.

### 3.4 Methods used for the assessment

The assessment of thermostatic radiator valves has been made in accordance with the EAD 280005-00-0702 "Thermostatic radiator valves".

## 4 Assessment and verification of constancy of performance (AVPC) system applied, with reference to its legal base

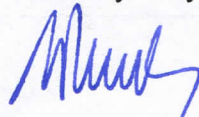
According to Decision 1999/472/EC as amended by 2001/596/EC of the European Commission the system 4 of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) applies.

## 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document (EAD)

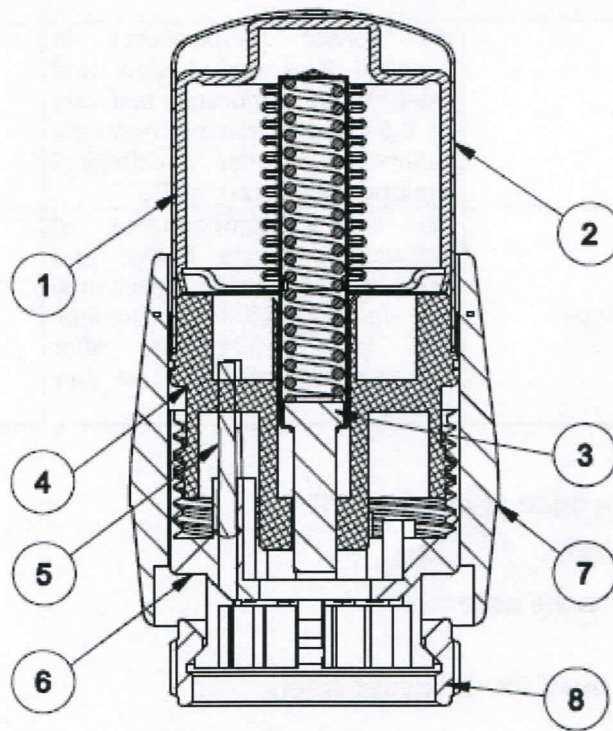
Technical details necessary for the implementation of the AVCP system are laid down in the control plan which is deposited at Instytut Techniki Budowlanej.

For type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

Issued in Warsaw on 28/09/2018 by Instytut Techniki Budowlanej



Anna Panek, MSc  
Deputy Director of ITB

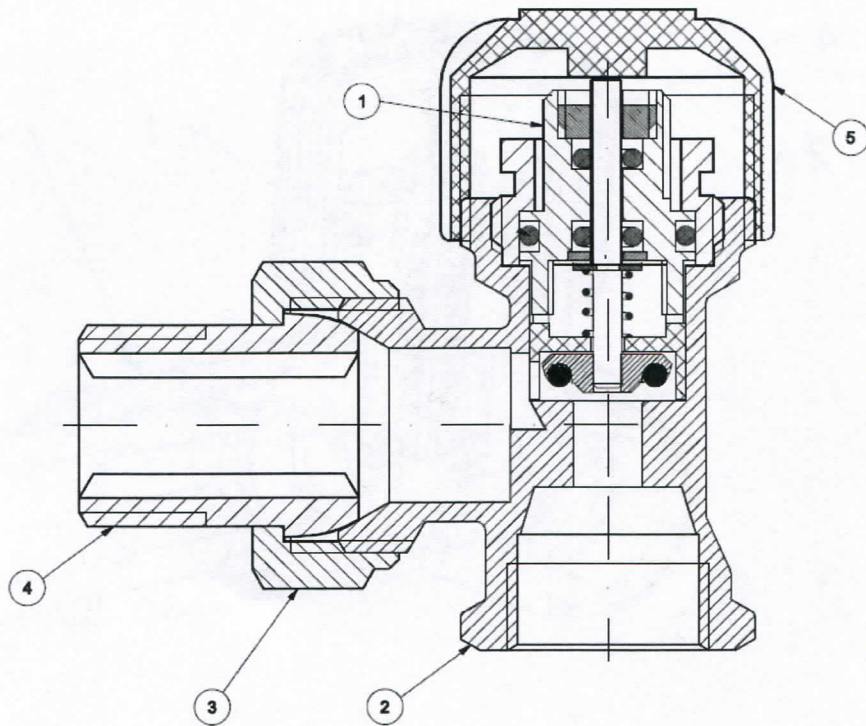


1. Liquid sensor
2. Sensor cover
3. Pusher
4. Selector's body
5. Locking pin
6. Body for mounting the valve
7. Sleeve
8. Nut

**Thermostatic radiator valves SFK and VISION**

**Thermostatic head assembly PRESTIGE GS.02 - description**

**Annex A1**  
of European  
Technical Assessment  
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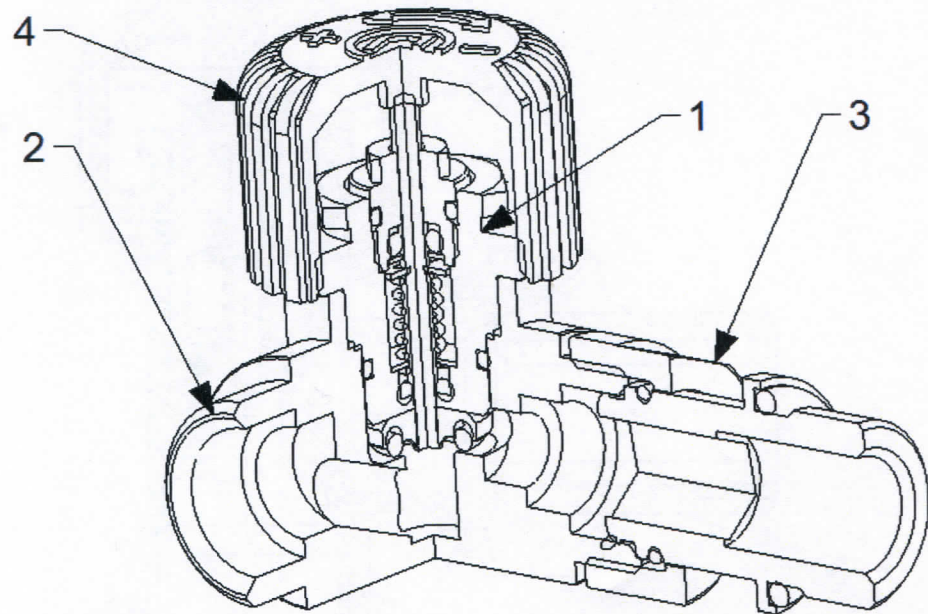


1. Valve insert
2. Valve body
3. Nut
4. Connector
5. Protective cap

**Thermostatic radiator valves SFK**

**Valve body assembly SFK 15 - description**

**Annex A2**  
of European  
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- 1. Valve insert
- 2. Valve body
- 3. Connector
- 4. Protective cap

**Thermostatic radiator valves VISION**

**Valve body assembly VISION - description**

**Annex A3**  
of European  
Technical Assessment  
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