

6.1

TÜV/CE safety valves for heating and cooling

Materials



Temperatures



from -50°C to $+150^{\circ}\text{C}$

Pressures



from 0.5 bar to 25 bar

Media



Threaded connection



from $G \frac{1}{2}''$ to $G 2''$

Flange connection



in DN 40 and DN 50

The **Goetze KG product range** is designed for hot water and heating systems as well as for cooling and air conditioning systems in single homes and multidwelling buildings and large building complexes. As an example, the safety valves for such installations are fitted with special sealing materials, which are suitable for glycol concentrations of up to 100%. A maximum degree of safety is of paramount importance when we develop new products. Even for combined plants, so-called "Combined Heating and Cooling Systems", safety valves with the necessary approvals are available from our product range.

Each heat generator of a heating plant must be safeguarded by means of at least one safety valve.

In the case of direct heating, the safety valves must be dimensioned in such a way that the nominal heat output of the heat generator can be safely discharged in the form of saturated steam.

In the case of indirectly heated heat generators, under certain circumstances, the safety valves may be dimensioned according to the flow volume of the expansion water.

In today's technical tenders it is often stipulated that the required valves must be suitable for the protection of both heating- and cooling-circuits.

On the market these are referred to as "Combined Heating and Cooling Systems". These systems are able to fulfill a number of functions. More and more frequently, these are used for cooling purposes in Summer and heating in Winter.

Due to the design criteria of the prevailing standards and regulations, until now a special valve for hot water for the heating circuit and a second one for cold water or coolant was required.

Due to the new valve model type 851bHF made of best-quality gunmetal and 451bHF made of stainless steel, the regulations can be fulfilled by just one single GOETZE safety valve. These valves are marked with two type test approval markings as well as the letter codes D/G/H. Consequently, the valves are suitable for hot water and steam. They are also suitable and approved for liquid media.

6.1 TÜV/CE safety valves for heating and cooling



Safety valves with diaphragm Series 651mH

made of gunmetal, all-metal construction angle type with threaded connections



Safety valves with bellows Series 451bH

made of stainless steel, angle type with threaded connections



Safety valves with bellows Series 851bH

made of gunmetal, angle type with threaded connections



Safety valves with bellows Series 352bHL

made of GGG 40.3 spheroidal graphite cast iron with flange connections

Neutral



Non-neutral



Gastight

Bellows



Diaphragm



MEDIA:

HOT WATER UP TO 120 °C

LIQUID

651mHMK with enlarged outlet (TÜV/CE)
651mHIK with inlet and outlet diameter equal

Robust safety valve with diaphragm with an all-metal construction. Designed to protect hot-water- and heating-systems.

This unmatched design, which does not have any plastic parts, means that these valves are also suitable for very high external temperatures.

For demanding requirements in hot-water and heating-systems, there is also a version available made of high-quality corrosion- and acid-resistant stainless steel. This valve is suitable for all hot-water systems, where protection cannot be achieved by using a standard safety valve with diaphragm with the standard set pressures of 2,5 or 3 bar, for example in the case of all large building complexes.

High performance safety valve with bellows, made of high quality, corrosion-resistant gunmetal. Heating systems with set pressures other than 2,5 or 3 bar are required to be protected by such safety valves. Apart from indirectly heated plants, the sizing of the valves is based on the heating output of the boiler.

Proven technology comprising of various materials for the most varied requirements: This valve made of spheroidal graphite cast iron GGG40.3 is a cost-effective alternative to the corrosion-resistant versions made of gunmetal or stainless steel. These safety valves are not only used for the protection of large-scale heating plants in building technology but also for industrial applications and power stations.

Threaded connections
from G ½" to G 2"

Threaded connections
from G ½" to G 2"

Threaded connections
from G ½" to G 2"

Flange connections
in DN 40 and DN 50

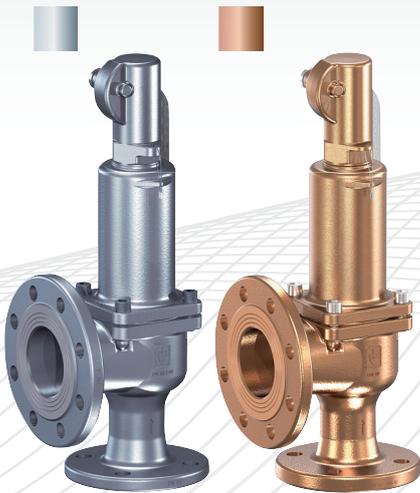
Temperatures
from -10 °C to +120 °C

Pressures
2.5 bar, 3 bar and 3,5 bar (for 651mHIK only)

Pressures
from 0.5 bar to 25 bar

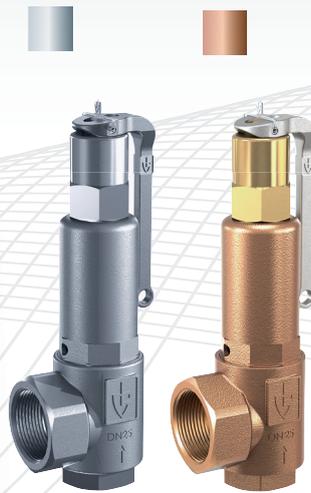
Pressures
from 0.5 bar to 25 bar

Pressures
from 0.5 bar to 16 bar



**Safety valves with bellows
Series 452bHL / 852bHL**

made of stainless steel/gunmetal, angle type with flange connections



**Safety valves with bellows
Series 451bHF / 851bHF**

made of stainless steel/gunmetal, angle type with threaded connections



**Safety valves with diaphragm
Series 652mFK**

made of gunmetal, all-metal construction, angle type with threaded connections



Where highest material and quality standards are important, then safety valves made of stainless steel with flange connections can be an option. Also, this type of safety valve made of corrosion- and seawater-resistant gunmetal for the protection of large heating plants in the shipbuilding industry as well as in building technology applications represents a necessary addition to the comprehensive range of Goetze products.

Universal high performance safety valve made of extremely corrosion resistant stainless steel or gunmetal with metal bellows, to meet the highest demands. Suitable and approved for heating plants and cooling- and chilling plants. The sizing of the valve is based on the heating output of the boiler. In the case of indirectly heated heating generators and closed chilling circuits this is based on the flow volume of the expansion water.

The safety valve with diaphragm in the version 652mFK-EPDM is especially designed for the protection of closed cooling circuits. This valve made of corrosion-resistant gunmetal with an all-metal construction is resistant for plants and cooling media with a glycol content of up to 100%. The unbeatable price/performance ratio makes these the standard valves stipulated in tenders for cooling and air-conditioning plants.



Flange connections
in DN 40 and DN 50



Temperatures
from -10 °C to +120 °C



Pressures
from 0.5 bar to 25 bar



Threaded connections
from G 1/2" to G 2"



Temperatures
from -40 °C to +120 °C



Pressures
from 0.5 bar to 25 bar



Threaded connections
from G 1/2" to G 2"



Temperatures
from -50 °C to +150 °C



Pressures
from 1 bar to 16 bar