

# Safety Relief Valves



**LK 510, 511, 512 & 514**



Safety relief valves for heating and tap water systems.

# LK 510 Safety Relief Valve – Tap Water

Safety relief valve for tap water installations.



## TECHNICAL DATA

Max. working temperature	120°C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: Female G $\frac{3}{4}$ Outlet: Compression fitting 22 mm
<b>Type approval certificates</b>	
 SWEDCERT TG 0196	
	

## FITTING/INSTALLATION

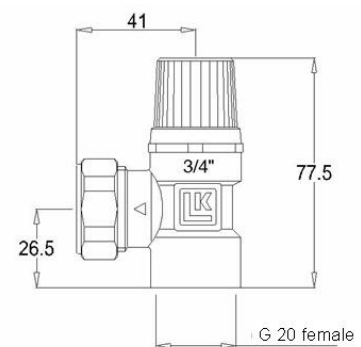
The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year. Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about  $\frac{1}{4}$  turn, and the valve returns to closed position.

The safety relief valve may open after a large discharge from the water heater. This is a normal function since the pressure relief level in the water heater can be reached due to the increased volume of the water when heated.



Article type	Art. no.	Dim.	Opening pressure/ Max blow-off capacity
LK 510	090032	G $\frac{3}{4}$ female/22mm	0,6 MPa / 133 l/min*
LK 510	090033	G $\frac{3}{4}$ female/22mm	0,9 MPa / 112 l/min*
LK 510	090034	G $\frac{3}{4}$ female/22mm	1,0 MPa / 133 l/min*



\* - according to Swedish standard VVA 93

# LK 511 Safety Relief Valve – Tap Water

Safety relief valve for tap water installations.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: Male thread G $\frac{3}{4}$ Outlet: Compression fitting 22 mm
<b>Type approval certificates:</b>	
 SWEDCERT TG 0196	
	

## FITTING/INSTALLATION

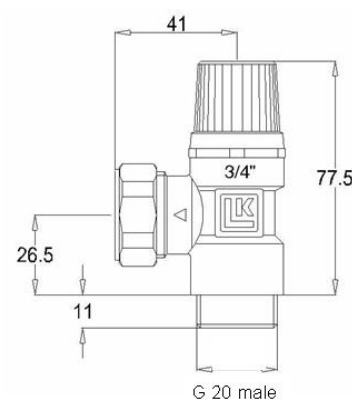
The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year. Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about  $\frac{1}{4}$  turn, and the valve returns to closed position.

The safety relief valve may open after a large discharge from the water heater. This is a normal function since the pressure relief level in the water heater can be reached due to the increased volume of the water when heated.



Article type	Art. no.	Dim.	Opening pressure/ Max blow-off capacity
LK 511	090042	G $\frac{3}{4}$ male/22 mm	0,6 MPa / 133 l/min*
LK 511	090044	G $\frac{3}{4}$ male/22 mm	0,9 MPa / 112 l/min*
LK 511	090043	G $\frac{3}{4}$ male/22 mm	1,0 MPa / 133 l/min*



\* - according to Swedish standard VVA 93

# LK 512 Safety Relief Valve – Tap Water

Safety relief valve for tap water installations.



## TECHNICAL DATA

Max. working temperature	120°C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Compression fitting 22 mm
<b>Type approval certificates:</b>	
 SWEDCERT TG 0196	
	

## FITTING/INSTALLATION

The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

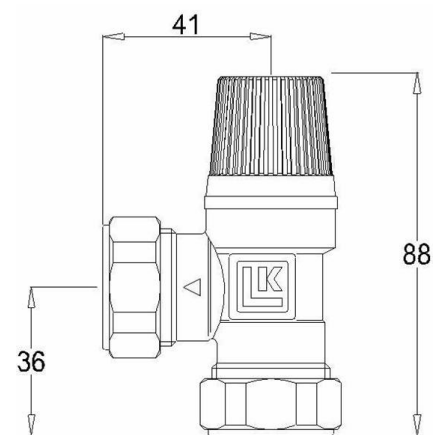
It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.

Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about ¼ turn, and the valve returns to closed position.

The safety relief valve may open after a large discharge from the water heater. This is a normal function since the pressure relief level in the water heater can be reached due to the increased volume of the water when heated.



Article type	Art. no.	Dim.	Opening pressure/ Max blow-off capacity
LK 512	090052	22 mm	0,6 MPa / 133 l/min*
LK 512	090054	22 mm	0,9 MPa / 112 l/min*
LK 512	090053	22 mm	1,0 MPa / 133 l/min*

\* - according to Swedish standard VVA 93

# LK 514 Safety Relief Valve – Tap Water

Safety relief valve for tap water installations, heating, recycling and cooling systems with only thermal expansion. The valve must not be used for steam.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: Male thread G $\frac{1}{2}$ Outlet: 15 mm compression fitting

### Type approval certificates:



## FITTING/INSTALLATION

The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

The o-ring seal ensures simple fitting to other LKA valves. Tighten first by hand and then with a spanner, 0,5-1,5 turn until the desired position of the discharge pipe is achieved. If the valve is fitted to other components than a LKA valve, the thread has to be sealed in the usual manner.

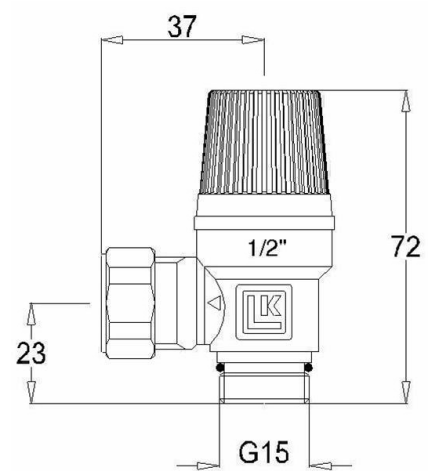
It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.

Turn the knob counter-clockwise a  $\frac{1}{4}$  turn until a faint “click” is heard. Let the water flush through briefly, then turn another  $\frac{1}{4}$  turn until a stronger “click” is heard and the valve closes. The opening function in two steps makes it possible to drain the water heater using the overflow on the safety relief valve.

The safety relief valve may open after a large discharge from the water heater. This is a normal function since the pressure relief level in the water heater can be reached due to the increased volume of the water when heated.



Article type	Art. no.	Dim.	Opening pressure/ Max blow-off capacity
LK 514	090112	G½ male/15 mm	0,4 MPa / 96 l/min*
LK 514	090113	G½ male/15 mm	0,6 MPa / 118 l/min*
LK 514	090114	G½ male/15 mm	0,7 MPa / 104 l/min*
LK 514	090115	G½ male/15 mm	0,9 MPa / 122 l/min*
LK 514	090116	G½ male/15 mm	1,0 MPa / 148 l/min*



\* - according to Swedish standard VVA 93

# LK 510 Safety Relief Valve – Heating Systems

Safety relief valve for sealed boiler installations with rated power up to 50 kW. The valve must not be used for steam.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: female thread G $\frac{3}{4}$ Outlet: compression fitting 22 mm
<b>Type approval certificates</b>	
 SWEDCERT TG 0196	
	

## FITTING/INSTALLATION

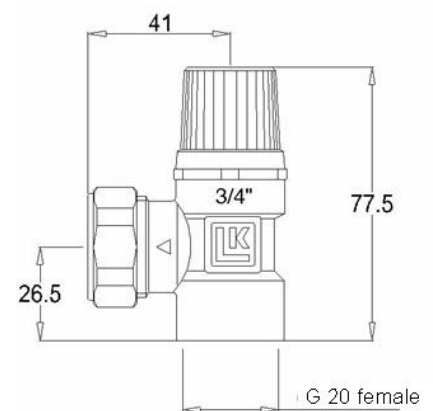
The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.

Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about  $\frac{1}{4}$  turn, and the valve returns to closed position.



Article type	Art. no.	Dim.	Opening pressure / Max blow-off capacity
LK 510	090030	G $\frac{3}{4}$ female./22mm	0,15 MPa - 35 l/min*
LK 510	090035	G $\frac{3}{4}$ female./22mm	0,2 MPa - 35 l/min*
LK 510	090031	G $\frac{3}{4}$ female./22mm	0,25 MPa - 38 l/min*
LK 510	090036	G $\frac{3}{4}$ female./22mm	0,3 MPa - 40 l/min*



\* - according to Swedish standard VVA 93

# LK 511 Safety Relief Valve – Heating Systems

Safety relief valve for sealed boiler installations with rated power up to 50 kW. The valve must not be used for steam.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: male thread G $\frac{3}{4}$ Outlet: compression fitting 22 mm
<b>Type approval certificates:</b>	
 Swedcert TG 0196	
	

## FITTING/INSTALLATION

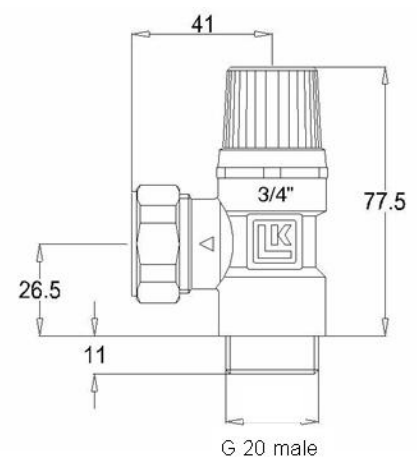
The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.

Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about  $\frac{1}{4}$  turn, and the valve returns to closed position.



Article type	Art. no.	Dim.	Opening pressure / Max blow-off capacity
LK 511	090040	G $\frac{3}{4}$ male/22 mm	0,15 MPa - 35 l/min*
LK 511	090047	G $\frac{3}{4}$ male/22 mm	0,2 MPa - 35 l/min*
LK 511	090041	G $\frac{3}{4}$ male/22 mm	0,25 MPa - 38 l/min*
LK 511	090048	G $\frac{3}{4}$ male/22 mm	0,3 MPa - 40 l/min*



\* - according to Swedish standard VVA 93

# LK 512 Safety Relief Valve – Heating Systems

Safety relief valve for sealed boiler installations with rated power up to 50 kW. The valve must not be used for steam.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	compression fitting 22 mm
<b>Type approval certificates:</b>	
 SWEDCERT TG 0196	
	

## FITTING/INSTALLATION

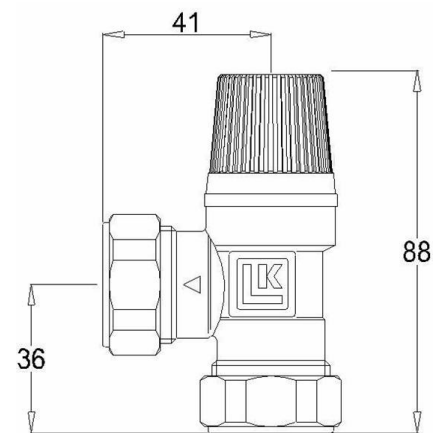
The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.

Turn the knob counter-clockwise by hand, until water flows out. Let the water flush through for a moment. Then turn the knob until a click is heard, about ¼ turn, and the valve returns to closed position.



Article type	Art. no.	Dim.	Opening pressure/ Max blow-off capacity
LK 512	090050	22 mm	0,15 MPa - 35 l/min*
LK 512	090051	22 mm	0,25 MPa - 38 l/min*

\* - according to Swedish standard VVA 93

# LK 514 Safety Relief Valve – Heating Systems

Safety relief valve for tap water installations, heating, recycling and cooling systems with only thermal expansion. The valve must not be used for steam.



## TECHNICAL DATA

Max. working temperature	120 °C
Material valve body	DZR Brass, EN 12165 CW602N
Material sealing membrane	EPDM
Connections	Inlet: male thread G $\frac{1}{2}$ Outlet: compression fitting 15 mm

### Type approval certificates:

 Swedcert TG 0197



## FITTING/INSTALLATION

The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that a water pocket cannot be formed. The thread has to be sealed in the usual manner.

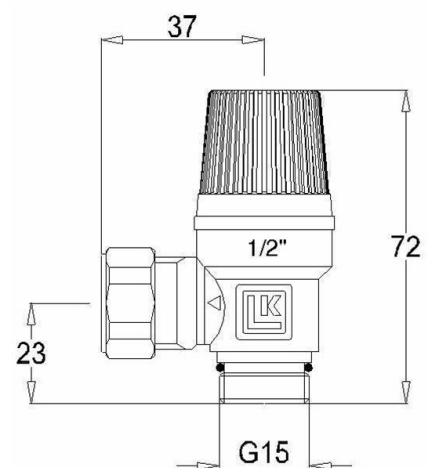
The o-ring seal ensures simple fitting to other LKA valves. Tighten first by hand and then with a spanner, 0,5-1,5 turn until the desired position of the discharge pipe is achieved. If the valve is fitted to other components than an LKA valve, the thread has to be sealed in the usual manner.

It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See the separate datasheet for compression fittings. Soft pipes are to be fitted with a support sleeve.

## OPERATION/MAINTENANCE

The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year. Turn the knob counter-clockwise a  $\frac{1}{4}$  turn until a faint “click” is heard. Let the water flush through briefly, then turn another  $\frac{1}{4}$  turn until a stronger “click” is heard and the valve closes. The opening function in two steps makes it possible to drain the water heater using the overflow on the safety relief valve.

The safety relief valve may open after a large discharge from the water heater. This is a normal function since the pressure relief level in the water heater can be reached due to the increased volume of the water when heated.



Article type	Art. no.	Dim.	Opening pressure / Max blow-off capacity
LK 514	090109	G½ male/15 mm	0,15 MPa - 31 l/min*
LK 514	090108	G½ male./15 mm	0,2 MPa - 35 l/min*
LK 514	090110	G½ male/15 mm	0,25 MPa - 50 l/min*
LK 514	090111	G½ male/15 mm	0,3 MPa - 81 l/min*
LK 514	090112	G½ male/15 mm	0,4 MPa - 96 l/min*
LK 514	090113	G½ male/15 mm	0,6 MPa - 118 l/min*

\* - according to Swedish standard VVA 93

# The LK Group

- four business areas



## Heating & Plumbing

LK Systems is one of Scandinavia's leading heating and plumbing suppliers and provides systems developed by the company itself for water heating, underfloor heating, tap water and radiator heating. The company is a market leader in several of these areas. LK Systems AS, LK Systems OY and LK Systems Ltd. are independent companies in Norway, Finland and the UK.

LK Prefab designs and manufactures prefabricated constructions for drains as well as piping for heating and tap water. The products are used primarily in new constructions where they save time and labour during installations.



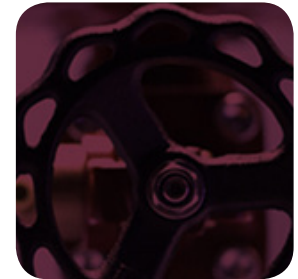
## PEX-Pipes

LK Pex – High-tech manufacturing of plastic pipes in PEXa-quality. The pipes are provided to the heating and plumbing industry throughout the world. LK Pex also supplies sister companies with PEXa-pipes for their production of underfloor heating and water installations.



## Industrial & Marine Valves and Strainers

LK Valves develops and manufactures industrial valves, filters and actuators for the global marine industry. A production plant, LK Valves Co.Ltd., has been established in Changzhou, China as well as a sales office, LK Valves Asia Pte.Ltd., in Singapore.



## Technical Armature

LK Armatur is Scandinavia's leading manufacturer of valves, components and prefabricated heating, water and sanitation products for the European OEM market. In addition to designing and manufacturing its own products the company also markets a complementary range of trade products. LK Armatur's products are mainly used for water heating systems, heating installations and equipment for hospitals and large kitchens. There is also an energy-saving range that is used in all kinds of hydronic heating systems. A production facility for the prefabrication of pipes, LK Armatur d.o.o., has been established in Zrenjanin, Serbia.

