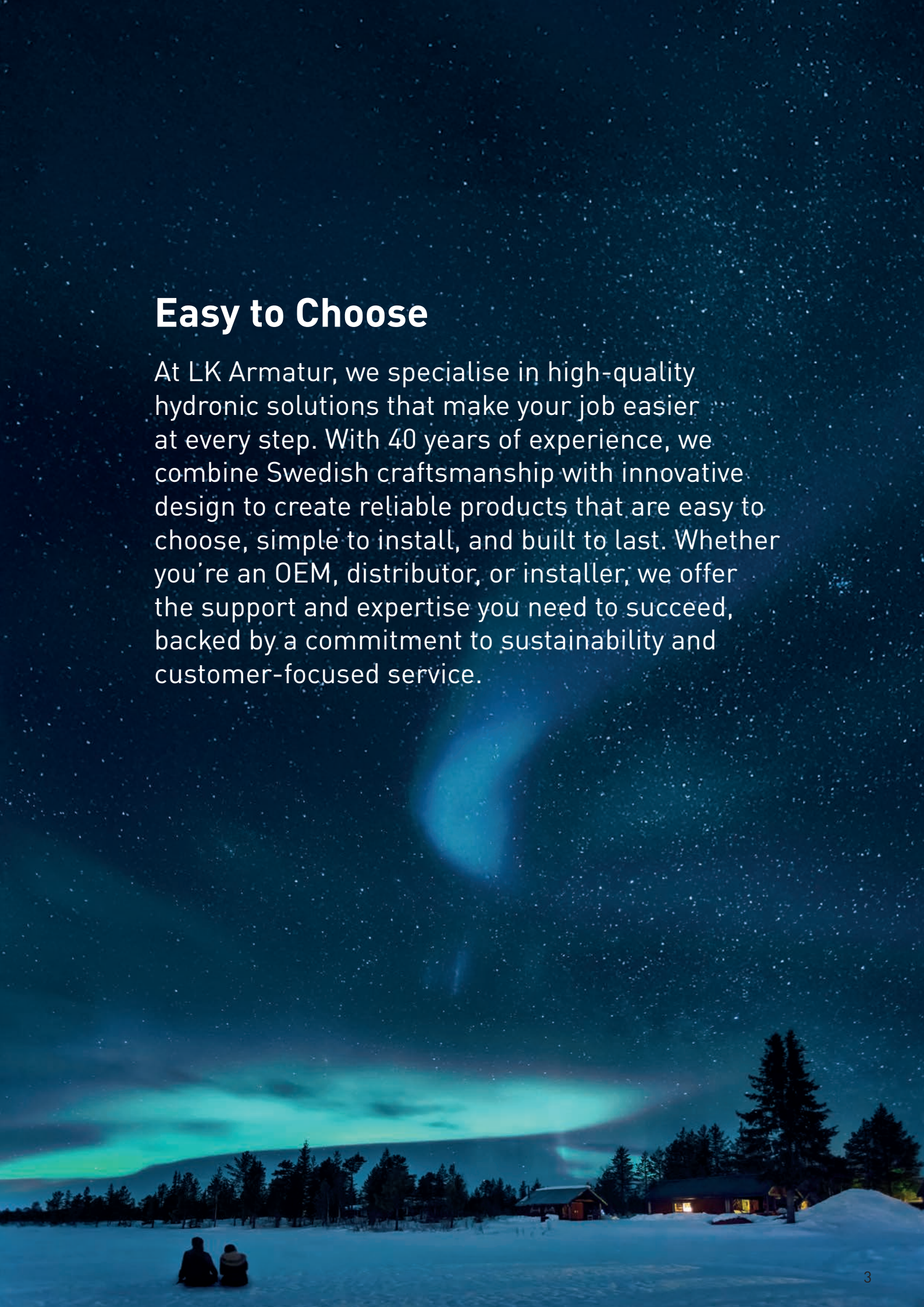
LK Armatur

# Product Catalogue



# Easy to Choose

At LK Armatur, we specialise in high-quality hydronic solutions that make your job easier at every step. With 40 years of experience, we combine Swedish craftsmanship with innovative design to create reliable products that are easy to choose, simple to install, and built to last. Whether you're an OEM, distributor, or installer, we offer the support and expertise you need to succeed, backed by a commitment to sustainability and customer-focused service.

# New Products 2025

## Air Vent Valve

### LK 770 AeroSafe

The LK 770 AeroSafe is designed for air-water heat pumps using R290 refrigerant. It removes liquid refrigerant and non-condensable gases, protecting the compressor and boosting efficiency. Made from lightweight, lead-free stainless steel, it's easy to install and service with a removable lid. With a flow rate up to 19.5 $m^3/h$, low pressure drop, and side discharge to prevent ice formation, it ensures optimal performance and system longevity.

- Low pressure drop
- Lead-free
- Side discharge prevents ice formation

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## Pump Groups

### LK HydronicGroup C/C 125 Cooling

LK HydronicGroup C/C 125 Cooling is an all-in-one pump group designed for both heating and cooling applications. It includes a high-efficiency circulation pump and insulation. The system offers two options: direct supply with the LK 861 C pump group, or mixed supply with the LK 862 C pump group, which includes a three-way mixing valve. LK 862 Cooling should be paired with an actuator, such as the LK 950 or 100 CT.

- For both cooling and heating applications
- Pipe is cataphoresis-treated to resist corrosion
- Easy to combine with electronic regulation

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## Safety Valve Set

### LK 556 AntiFreeze Set

- Protects heating system from freeze damage
- The valve is maintenance free
- Set includes two AntiFreeze valves and two insulation pieces

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## Solar Pump Unit

### LK 212 SolarStation S

- Reduced energy costs by using solar power
- Compact dual-pipe solar unit
- Connections with 3/4" female thread and 1" male thread

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## Filling Valve

### LK 534 ThermoFill® EA

- Integrated with two ball valves and non-return valve
- Classified as EA type according to EN 1717

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# Easy to Choose

## Accessible anytime, anywhere


### Comprehensive Product Information
Find specifications, dimensions, assembly guides and more.

### Contact Information
Quickly find contact info to get in touch with us.

### Always Updated
Always current with the latest product details.

### Accessible Anytime, Anywhere
Access the information you need, whether you're in the office, on-site, or on the go.

### Printable Product Sheets
Print your own product and assortment sheets.

### Video Guides
View helpful product overviews and guides.

## Loading Units



## Pump Groups

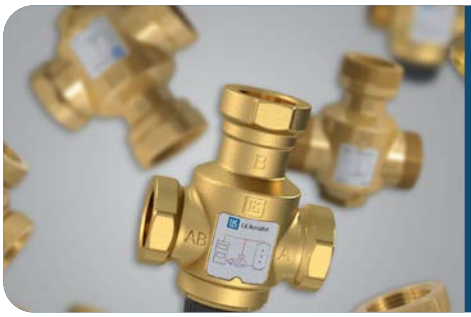


## Tap Water Units



## Solar Stations





## Thermic Valves and Check Valves



## Mixing Valves

## Temperature Controllers and Valve Actuators

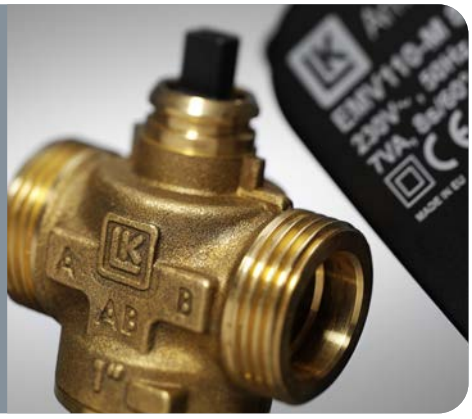


## Differential Temperature Controllers



## Zone Valves





## Filling Valves



## Valves for Water Heating



# Products for Underfloor Heating




# Other Products



# Company Information



**LK Armatur - Your Partner for Heating and Hot Water Solutions**

At LK Armatur, we're more than just a valve manufacturer; we're your partner in creating efficient heating and hot water solutions. With millions of valves produced annually, we understand how every component interacts in your unique applications. From standard products to custom solutions in Valves, Electronic Heat Regulation, Prefabrication, and Accessories, we're here to meet your specific needs. Our focus on energy efficiency and environmental responsibility helps you address the challenges of energy shortages and climate change. Choose LK Armatur for quality, customization, and reliability in every project.

# Easy to Choose

Find the right biofuel heating solution for you

# Loading unit

## LK 810 ThermoMat 2.0

- Improved regulation
- Compact design
- High efficiency pump from Grundfos / Wilo

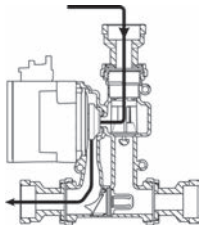
| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50 Hz |
| Power consumption | G: 5-52 W, depending on pump speed<br>W: 3-75 W, depending on pump speed |
| Max. boiler efficiency | 65 kW at 20 °C ΔT |
| Max. working pressure | 0.6 MPa (6 bar) |
| Working temperature | G: Min. 5 °C/Max. 110 °C<br>W: Min. 5 °C/Max. 95 °C |
| Return temperature | 55 °C, 60 °C, 65 °C or 70 °C |
| Ambient temperature | G: Min. 0 °C/Max. 70 °C<br>W: Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para /8 SC FS14<br>Grundfos UPM3 Auto xx-70 |
| Material, valve body | Brass EN 1982 CB753S |
| Material, insulation | Expanded Polypropylene EPP |
| Flow | Max. 5900 l/h |

LK 810 ThermoMat 2.0 is a loading unit for heating applications with solid fuel boilers and storage tanks. The loading unit is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

The LK 810 ThermoMat 2.0 is a compact design with an integrated low-energy circulating pump and a thermic loading valve that regulates on two ports. The loading unit has three ball valves to simplify installation and maintenance, three thermometers that allow for simple control of the loading process and an insulation to minimize heat loss. The loading unit is available in two versions - with or without check valve. With a check valve the functions described under phase 4 will be obtained. The loading unit is reversible and can easily be adapted for mounting to the right or left of the boiler. Thanks to the three ball valves any part can be changed without draining the system in case of servicing.

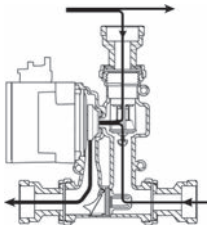
LK 810 ThermoMat 2.0 is also available with a circulating pump that is controlled by a PWM-signal. For more information please contact our sales department.

### THE FUNCTION OF THE LOADING UNIT DURING THE DIFFERENT PHASES OF HEATING:



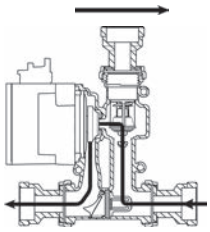
#### 1. HEAT UP PHASE

The water circulates between boiler and loading unit while the temperature of the boiler is rising.



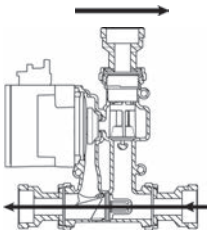
#### 2. LOADING PHASE

The thermostatic element starts to open and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.



#### 3. END PHASE

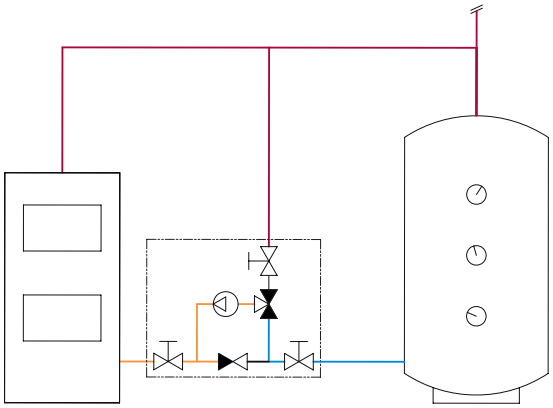
The thermostatic element is fully open and the bypass is closed. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water.



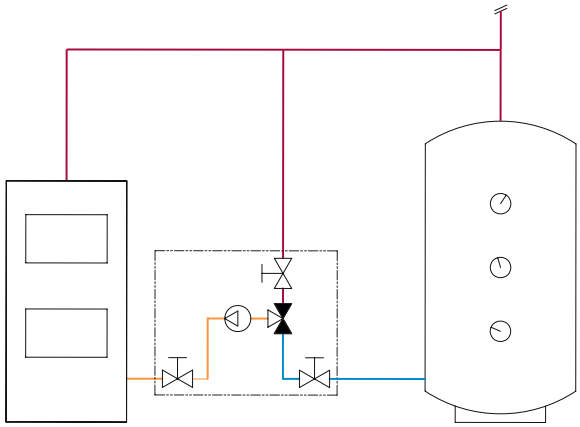
#### SELF-CIRCULATION WITH CHECK VALVE

Self-circulation will be obtained as soon as the fire has gone out and the circulating pump has stopped. The remaining hot water is loaded to the storage tank. In case of power failure or pump breakdown the check valve automatically opens to allow self-circulation. The check valve also stops recirculation from storage tank to boiler.

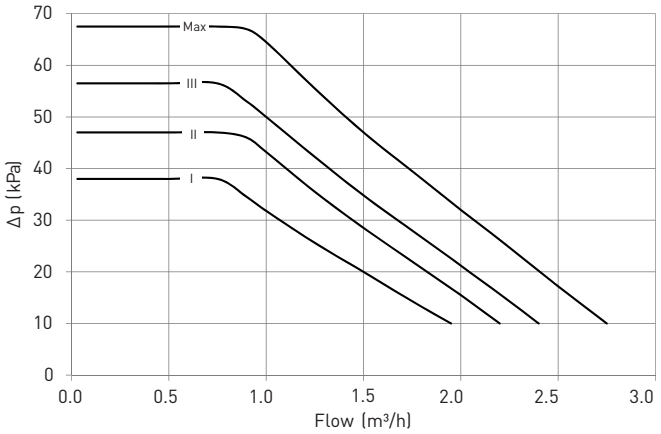
**WITH CHECK VALVE**



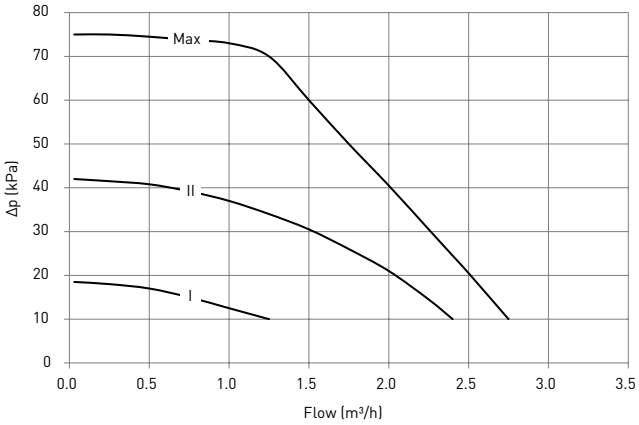
**WITHOUT CHECK VALVE**



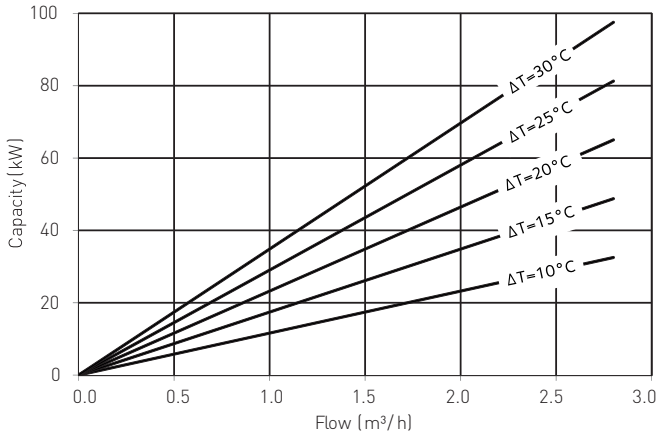
**PUMP CHARACTERISTICS - GRUNDFOS UPM3 AUTO XX-70**



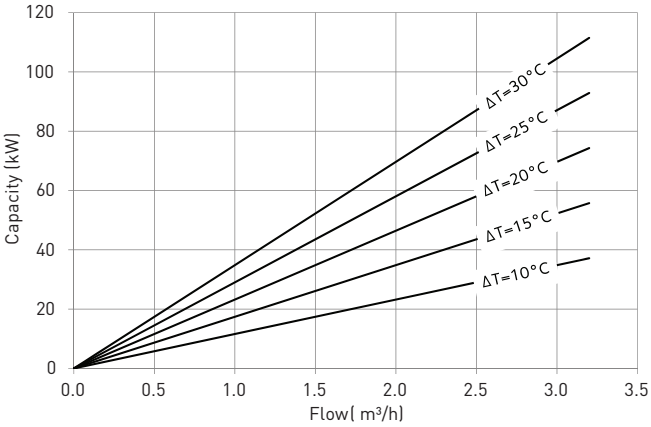

**PUMP CHARACTERISTICS - WILO PARA */8 SC FS14**



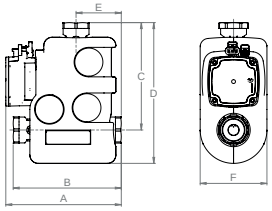

**BOILER CAPACITY DIAGRAM - GRUNDFOS UPM3 AUTO XX-70**




**BOILER CAPACITY DIAGRAM - WILO PARA */8 SC FS14**



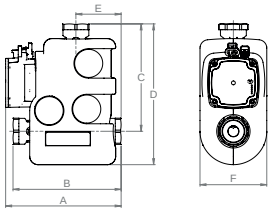

## LK 810 2.0 Grundfos - Compression fitting




| Article no. | Type | Return temp. | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 181644 | with check valve | 55 °C | 28 mm | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181650 | with check valve | 60 °C | 28 mm | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |

Other temperatures and dimensions on request.

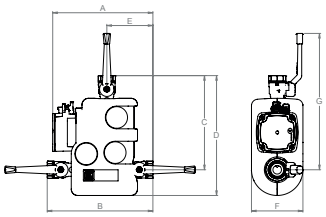
## LK 810 2.0 Grundfos - Female thread




| Article no. | Type | Return temp. | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 181640 | with check valve | 55 °C | F 1" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181642 | with check valve | 55 °C | F 1¼" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181646 | with check valve | 60 °C | F 1" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181648 | with check valve | 60 °C | F 1¼" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181651 | without check valve | 65 °C | F 1" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181652 | with check valve | 65 °C | F 1" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181654 | with check valve | 65 °C | F 1¼" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181658 | with check valve | 70 °C | F 1" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181660 | with check valve | 70 °C | F 1¼" | 208 | 195 | 195 | 255 | 82 | 120 | 4.0 |

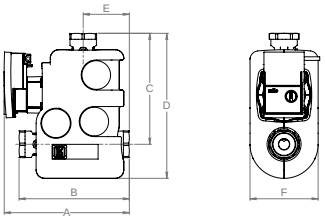
Other temperatures and dimensions on request.

## LK 810 2.0 Grundfos - Female thread




| Article no. | Type | Return temp. | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 181839 | with check valve | 55 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181840 | without check valve | 55 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181825 | with check valve | 60 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181841 | without check valve | 60 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181827 | with check valve | 65 °C | F 1" | 234 | 247 | 220 | 280 | 108 | 120 | 300 | 4.0 |
| 181842 | without check valve | 65 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181829 | with check valve | 70 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 181843 | without check valve | 70 °C | F 1" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182352 | with check valve | 55 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182353 | without check valve | 55 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182354 | with check valve | 60 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182355 | without check valve | 60 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182356 | with check valve | 65 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182357 | without check valve | 65 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182358 | with check valve | 70 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |
| 182359 | without check valve | 70 °C | F 1¼" | 234 | 247 | 222 | 282 | 108 | 120 | 300 | 4.0 |

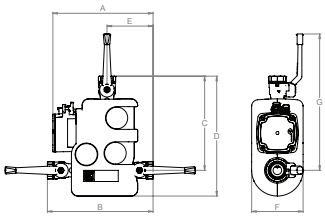
## LK 810 2.0 Wilo - Female thread




| Article no. | Type | Return temp. | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 181664 | with check valve | 55 °C | F 1" | 216 | 195 | 195 | 255 | 82 | 120 | 4.0 |
| 181669 | without check valve | 60 °C | F 1" | 216 | 195 | 195 | 255 | 82 | 120 | 4.0 |

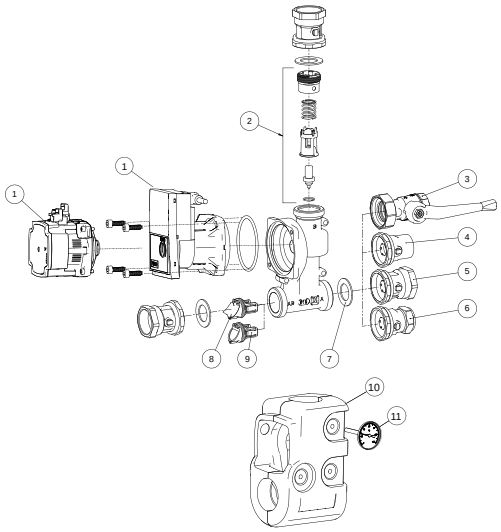
Other temperatures and dimensions on request.

# LK 810 2.0 Wilo - Female thread



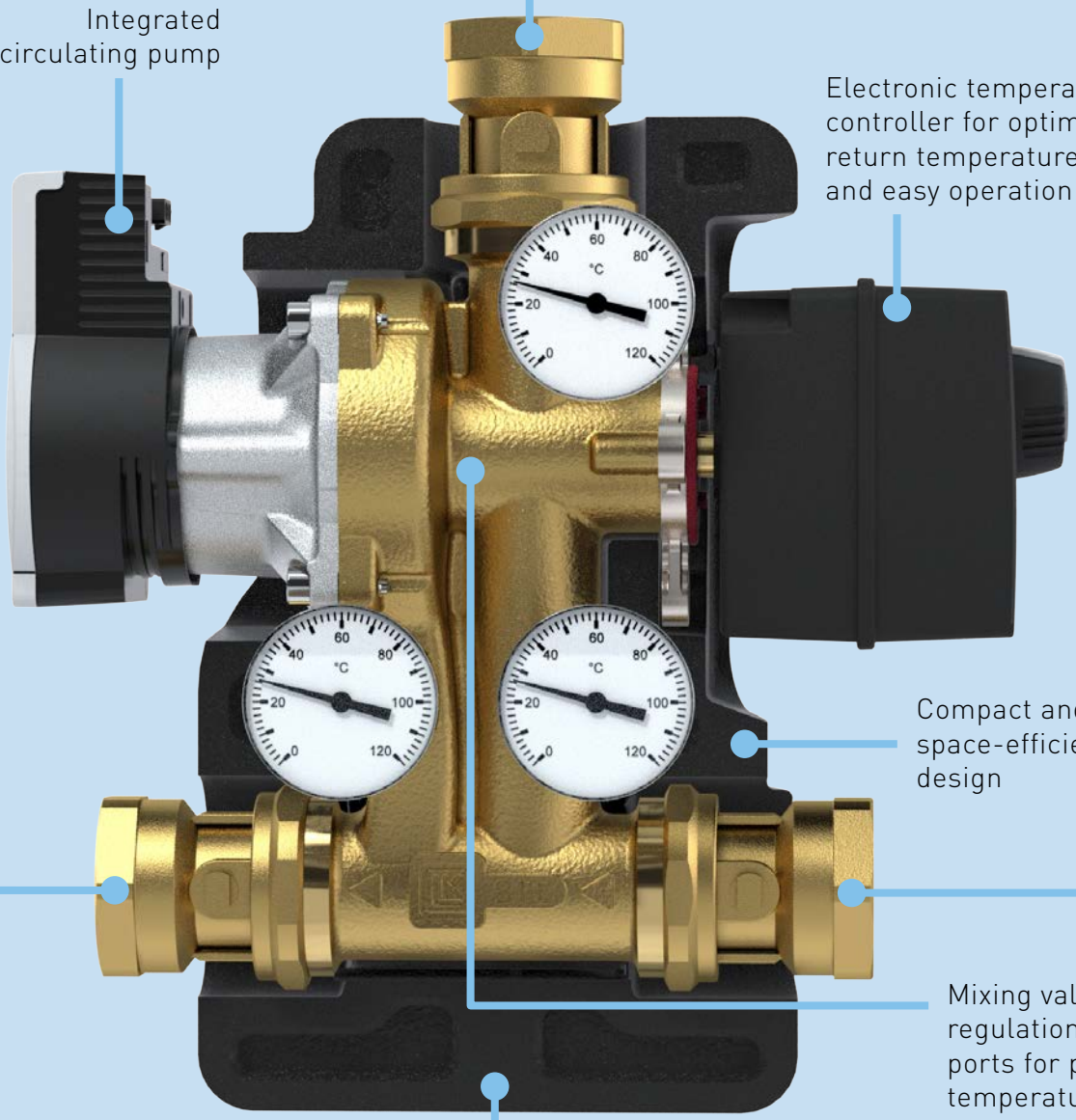
| Article no. | Type | Return temp. | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 181844 | with check valve | 55 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181848 | without check valve | 55 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181845 | with check valve | 60 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181849 | without check valve | 60 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181846 | with check valve | 65 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181850 | without check valve | 65 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181847 | with check valve | 70 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 181851 | without check valve | 70 °C | F 1" | 248 | 250 | 222 | 282 | 108 | 120 | 302 | 4.0 |
| 182360 | with check valve | 55 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182361 | without check valve | 55 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182362 | with check valve | 60 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182363 | without check valve | 60 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182364 | with check valve | 65 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182365 | without check valve | 65 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182366 | with check valve | 70 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |
| 182367 | without check valve | 70 °C | F 1¼" | 248 | 279 | 238 | 282 | 124 | 120 | 302 | 4.0 |

## SPARE PARTS AND ACCESSORIES



| Article no. | Article | Position |
|---|---|---|
| 187168 | Grundfos UPM3 Auto xx-70 | 1 |
| 187347 | Wilo Para */8 SC FS14 | 1 |
| 187163 | Thermostatic element 55 °C | 2 |
| 187164 | Thermostatic element 60 °C | 2 |
| 187165 | Thermostatic element 65 °C | 2 |
| 187166 | Thermostatic element 70 °C | 2 |
| 055577 | Ball valve F 1" with handles | 3 |
| 187329 | Ball valve F 1¼" with handles | 3 |
| 187017 | Ball valve F 1" | 4 |
| 187018 | Ball valve F 1¼" | 5 |
| 187019 | Ball valve 28 mm | 6 |
| 013057 | Sealing EPDM 44x32x2 mm | 7 |
| 187021 | Check valve 810 / 811 | 8 |
| 187022 | Plug 810 / 811 | 9 |
| 187167 | EPP Insulation | 10 |
| 180352 | Thermometer 120 °C | 11 |

# LK 811 ThermoMat 2.0 W




The **LK 811 ThermoMat 2.0 W** loading unit is your solution for improved heating performance. Designed for use with solid fuel boilers and storage tanks, this compact unit maintains high return temperature, extending the life of your boiler. Install with ease between your solid fuel boiler and storage tank, making it adaptable to your system's needs.

# Loading unit

## LK 811 ThermoMat 2.0 W

- Adjustable return temperature
- Electronic regulation ensures an easy operation

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Max. boiler efficiency | 65 kW at 20 °C ΔT |
| Max. working pressure | 0.6 MPa (6 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Return temperature | 5-99 °C with LK 100 SmartComfort CT |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para /6 SC FS14,<br>Wilo Para /8 SC FS14 |
| Material, valve body | Brass EN 1982 CB753S |
| Material, insulation | Expanded Polypropylene EPP |

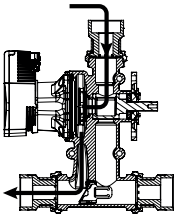
LK 811 ThermoMat 2.0 W is a loading unit for heating applications with solid fuel boilers and storage tanks. The loading unit is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

The LK 811 ThermoMat 2.0 W is a compact design with an integrated low-energy circulating pump and a mixing valve that regulates on two ports. The loading unit has three ball valves to simplify installation and maintenance and an insulation to minimize heat loss. Three thermometers that allow for simple control of the loading process can be ordered as accessories.The loading unit is available in two versions - with or without check valve. With a check valve the functions described under phase 4 will be obtained. The loading unit is reversible and can easily be adapted for mounting to the right or left of the boiler. Thanks to the three ball valves any part can be changed without draining the system in case of servicing.

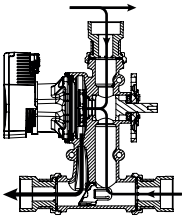
LK 811 ThermoMat 2.0 W is available with or without an electronic temperature controller. Mounting kits for controllers of other brands are available - see section Temperature Controllers - Mounting Kits.
Please contact our Sales Department for more information.

**THE FUNCTION OF THE LOADING UNIT DURING THE DIFFERENT PHASES OF HEATING:**

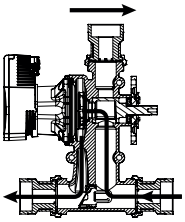
**1. HEAT UP PHASE**
The water circulates between boiler and loading unit while the temperature of the boiler is rising.



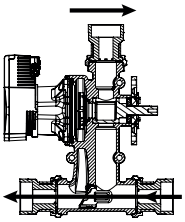
**2. LOADING PHASE**
The electronic temperature controller starts to open the mixing valve at the chosen temperature and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.



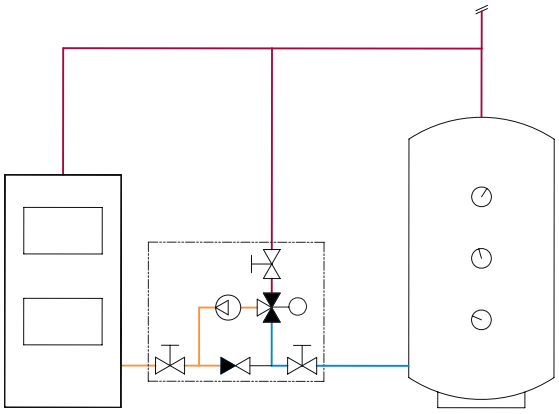
**3. END PHASE**
The mixing valve is fully open towards the storage tank. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water. When the boiler has cooled the electronic controller LK 100 SmartComfort CT prevents re-circulation from storage tank to boiler.



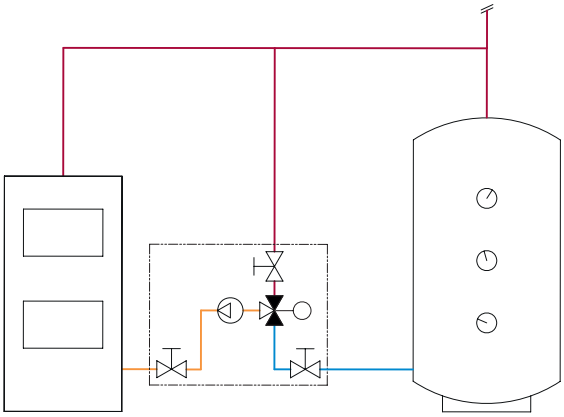
**4. SELF-CIRCULATION WITH CHECK VALVE**
Self-circulation will be obtained as soon as the fire has gone out and the circulating pump has stopped. The remaining hot water is loaded to the storage tank. In case of power failure or pump breakdown the check valve automatically opens to allow self-circulation. The check valve also stops recirculation from storage tank to boiler.



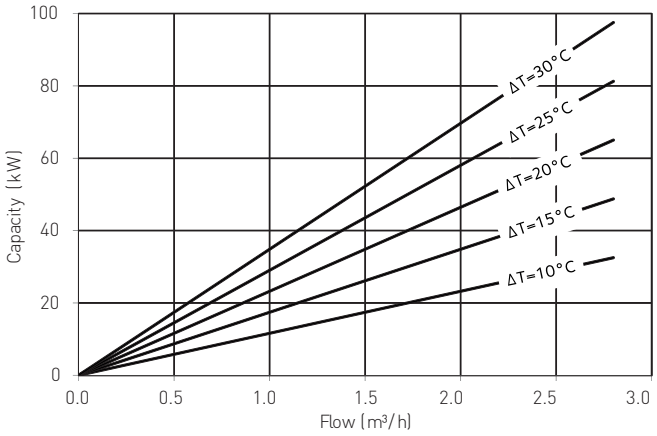
**WITH CHECK VALVE**



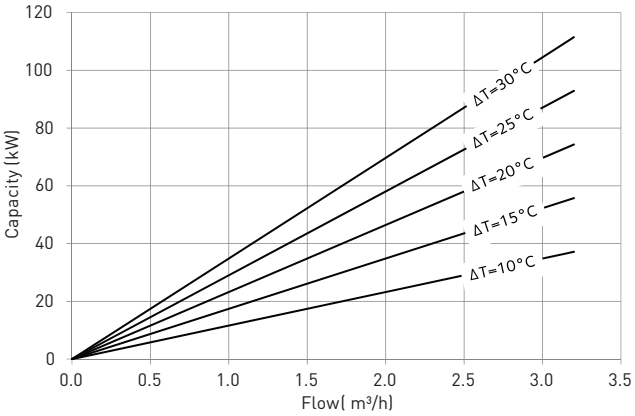
**WITHOUT CHECK VALVE**



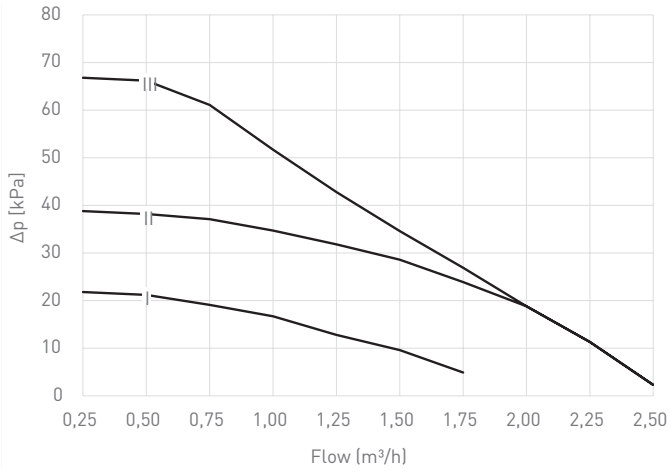
**BOILER CAPACITY DIAGRAM, WILO PARA*/6 SC FS14**



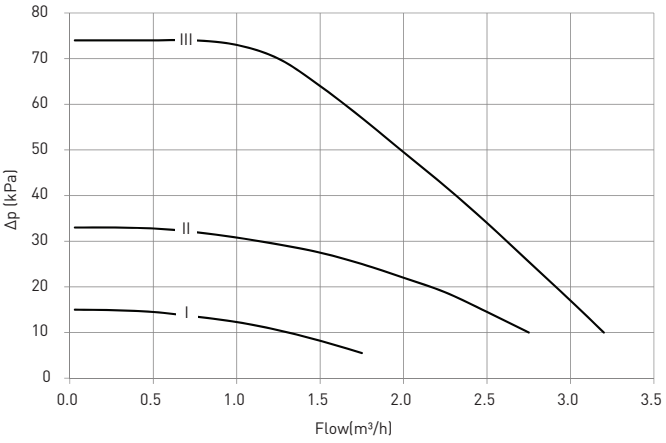

**BOILER CAPACITY DIAGRAM - WILO PARA */8 SC FS14**



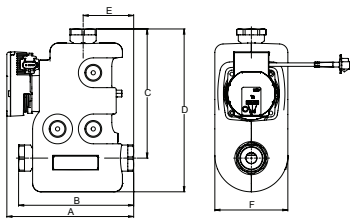

**PUMP CHARACTERISTICS, WILO PARA */6 SC FS14**




**PUMP CHARACTERISTICS, WILO PARA */8 SC FS14**

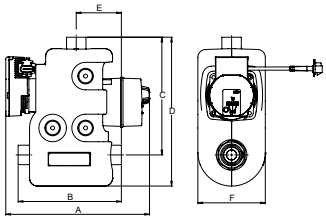



## LK 811 - Female thread



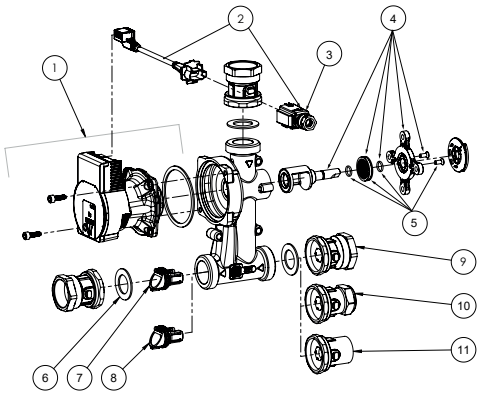

| Article no. | Type | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182772 | without check valve | F 1" | 226 | 205 | 230 | 290 | 90 | 130 | 4.2 |
| 182770 | without check valve | F 1¼" | 226 | 205 | 230 | 290 | 90 | 130 | 4.2 |

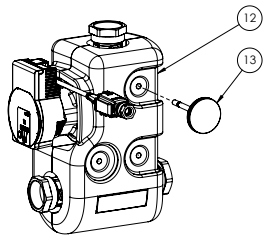
# LK 811 - Female thread - with LK 100 SmartComfort CT




| Article no. | Type | Dim. | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182779 | without check valve + CT 100 | F 1" | 277 | 199 | 227 | 287 | 87 | 130 | 4.2 |
| 182780 | without check valve + CT 100 | F 1¼" | 277 | 199 | 227 | 287 | 87 | 130 | 4.2 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 187347 | Wilo Para */8 SC FS14 | 1 |
| 187960 | Wilo Para */6 SC FS14 | 1 |
| 095443 | Cable Wilo Para 200 mm + Connector | 2 |
| 095220 | Connector | 3 |
| 187110 | Repair kit 811 | 4 |
| 187066 | Sealing kit 811/840/841, DN 15-20 | 5 |
| 013025 | Gasket EPDM 1½" - Ø44 x Ø27 x 2 mm | 6 |
| 187021 | Check valve 810 / 811 | 7 |
| 187022 | Plug 810 / 811 | 8 |
| 187018 | Ball valve F 1¼" | 9 |
| 187019 | Ball valve 28 mm | 10 |
| 187017 | Ball valve F 1" | 11 |
| 187351 | EPP Insulation, 811 | 12 |
| 058126 | Thermometer 120 °C | 13 |

# Loading unit

## LK 815 ThermoKit T

- Complete kit
- Low-energy pump

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 12-140 W depending on pump speed |
| Max. boiler efficiency | 140 kW at 20 °C ΔT |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Max. flow | 5900 l/h |
| Return temperature | 45 °C, 50 °C, 55 °C, 60 °C, 65 °C or 70 °C |
| Ambient temperature | Min. 5 °C/Max. 40 °C |
| Thread standard | Rp - female thread,<br>G - female thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Grundfos UPML 25-95 180 |
| Material, valve body | Brass EN 1982 CB753S |
| Material, insulation | Expanded Polypropylene EPP |

LK 815 ThermoKit T Eco is a loading group for heating applications with solid fuel boilers and storage tanks. The loading group is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

LK 815 ThermoKit T Eco consists of a low-energy circulating pump, an LK 823 ThermoVar thermic loading valve with insulation, a check valve, a thermometer for reading return temperature and three ball valves to simplify installation and maintenance. The loading group is reversible and can easily be adapted for mounting to the right or left of the boiler.
Thanks to the three ball valves any part can be changed without draining the system, if the need for servicing arise.

Thermometers are available as accessory, art. no. 181736.

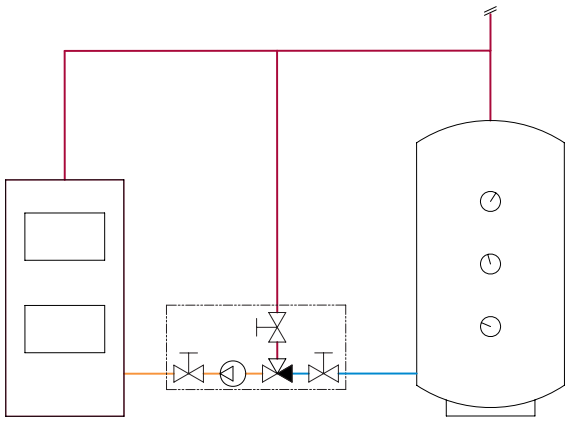
**THE FUNCTION OF THE LOADING UNIT DURING THE DIFFERENT PHASES OF HEATING:**

**1. HEAT UP PHASE**
The water circulates between boiler and loading group while the temperature of the boiler is rising.

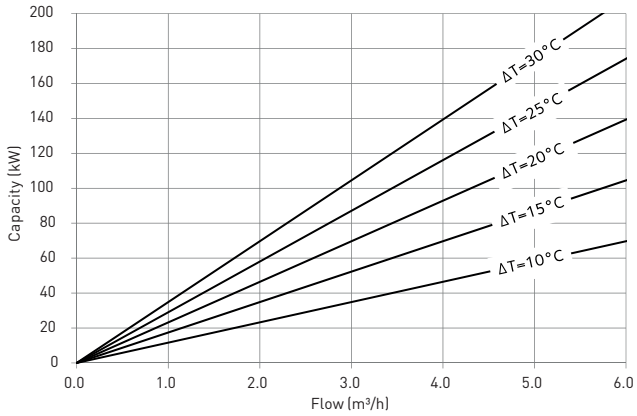
**2. LOADING PHASE**
The thermic valve starts to open and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.

**3. END PHASE**
The thermostatic element is fully open. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water.

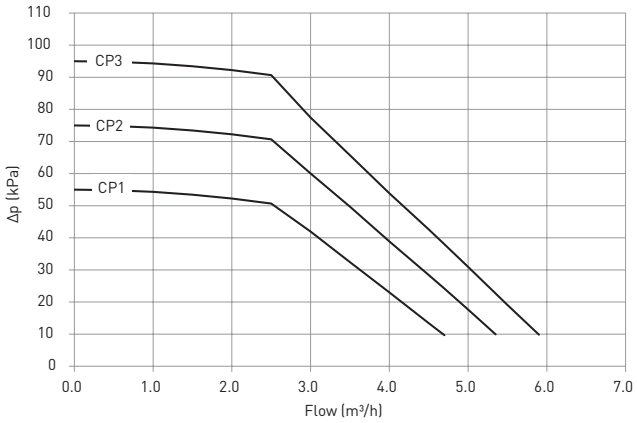
**4. SELF-CIRCULATION**
As soon as the fire has gone out and the circulating pump has stopped the remaining hot water in the boiler is loaded to the storage tank as long as the thermic valve remains open. When the boiler has cooled the thermic valve closes. The check valve prevents recirculation from storage tank to boiler.



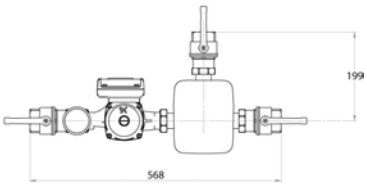
**BOILER CAPACITY DIAGRAM**




**PUMP CHARACTERISTICS**

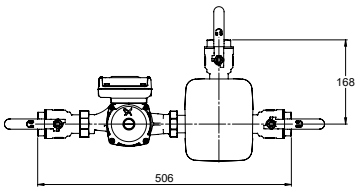



## LK 815 - Grundfos UPML 25-95 - Female thread




| Article no. | Return temp. | Dim. | Weight kg |
|---|---|---|---|
| 181572 | 45 °C | F 1½" | 7.1 |
| 181573 | 50 °C | F 1½" | 7.1 |
| 181574 | 55 °C | F 1½" | 7.1 |
| 181575 | 60 °C | F 1½" | 7.1 |
| 181576 | 65 °C | F 1½" | 7.1 |
| 181577 | 70 °C | F 1½" | 7.1 |

## LK 815 - Grundfos UPML 25-95 - Female thread




| Article no. | Return temp. | Dim. | Weight kg |
|---|---|---|---|
| 182390 | 45 °C | F 1¼" | 7.1 |
| 182391 | 50 °C | F 1¼" | 7.1 |
| 182392 | 55 °C | F 1¼" | 7.1 |
| 182393 | 60 °C | F 1¼" | 7.1 |
| 182394 | 65 °C | F 1¼" | 7.1 |
| 182395 | 70 °C | F 1¼" | 7.1 |

# Loading unit

## LK 816 ThermoKit E

- Complete kit
- Low-energy pump


| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-180 W depending on pump speed LK 100 SmartComfort CT Electronic Controller, 3 VA |
| Primary voltage, adapter | 100-240 VAC 50/60 Hz |
| Secondary voltage, adapter | 24 VDC 250 mA |
| Max. boiler efficiency | Dependent on circulating pump |
| Max. flow | Dependent on circulating pump |
| Angle of rotation | Temperature Controller: 90° |
| Torque | Temperature Controller: 5 Nm |
| Operation time | 140 sec. |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Return temperature | 5 - 99 °C |
| Ambient temperature | Min. 5 °C/Max. 40 °C |
| Thread standard | Rp - female thread, G - female thread |
| Protection class | IP 40 |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Grundfos Magna 32-80 180, Grundfos UPML 25-95 180, Grundfos UPMXL 32-105 180 |
| Material, valve body | Brass EN 12165 CW617N |
| Material, insulation | Expanded Polypropylene EPP |

LK 816 ThermoKit E Eco is a loading group for heating applications with solid fuel boilers and storage tanks. The loading group is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

LK 816 ThermoKit E Eco is a unit consisting of a low-energy circulating pump, an LK 840 ThermoMix mixing valve, an LK 100 SmartComfort CT controller with adjustment of the lowest return temperature 5 - 99 °C and three ball valves to simplify installation and maintenance. Articles number 181578 and 181579 are delivered with an insulation for the mixing valve. The loading group is reversible and can easily be adapted for mounting to the right or left of the boiler.
Thanks to the three ball valves any part can be changed without draining the system, should the need for servicing arise.

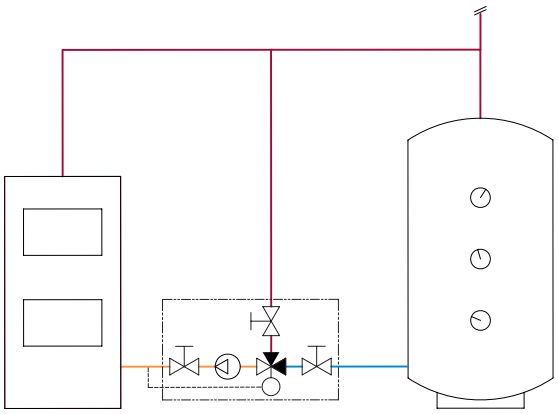
**THE FUNCTION OF THE LOADING UNIT DURING THE DIFFERENT PHASES OF HEATING:**

**1. HEAT UP PHASE**
The water circulates between boiler and loading group while the temperature of the boiler is rising.

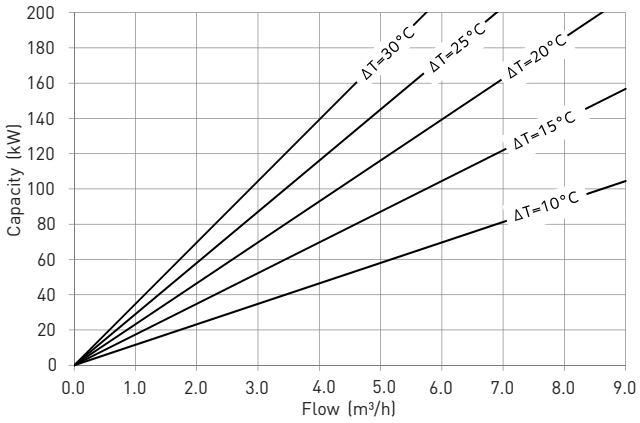
**2. LOADING PHASE**
The mixing valve starts to open and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.

**3. END PHASE**
The mixing valve is fully open towards the storage tank. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water. When the boiler has cooled the electronic controller prevents re-circulation from storage tank to boiler.

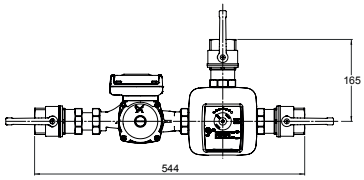
**4. SELF-CIRCULATION**
In case of power failure or pump breakdown the electronic controller can be manaully operated and the storage tank is loaded through self-circulation.

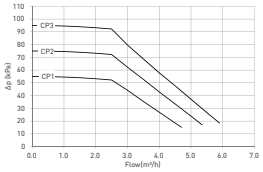


**BOILER CAPACITY DIAGRAM**



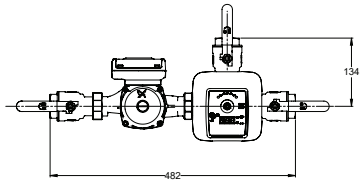

## LK 816 - Grundfos UPML 25-95 - Female thread

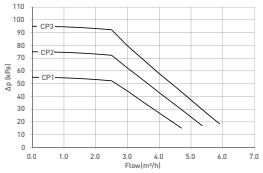



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 181578 | F 1½" | Adapter - EU | 7.1 |
| 181579 | F 1½" | Adapter - UK | 7.1 |

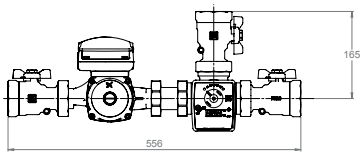
## LK 816 - Grundfos UPML 25-95 - Female thread

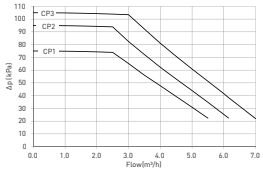



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 182396 | F 1¼" | Adapter - EU | 7.1 |
| 182397 | F 1¼" | Adapter - UK | 7.1 |

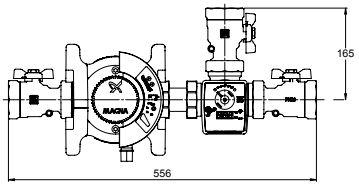
## LK 816 - Grundfos UPMXL 32-105 - Female thread

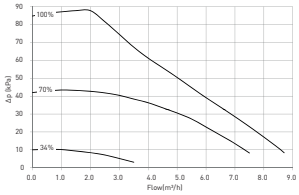



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 181580 | F 2" | Adapter - EU | 11.1 |
| 181581 | F 2" | Adapter - UK | 11.1 |

## LK 816 - Grundfos Magna 32-80 - Female thread




| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 181410 | F 2" | Adapter - EU | 12.4 |

# Easy to Choose

Expert help when you need it most

**Technical Support**
lkarmatur.com/technical-support


# More than one heating system in your property?

## With our wide range, we can ensure correct pump group for your specific need.

If you've more than one heating system in your property, you can easily connect up to five different pump groups. Our pump groups can easily be placed individually and in a group of up to five units. With our electronic controller, SmartComfort, installed on the pump group, the system will be provided with the exact amount of heat required in the building at any given time.
You can easly read the temperature on the intigrated thermometers.

- All in one
- Easy to install
- Easy to combine with electronic regulation

## Choose according to your needs:

**LK 860 - MANIFOLD**

**LK 861 - DIRECT SUPPLY**

**LK 862 - MIXED SUPPLY**
Three-way mixing valve is included.

**LK 863 - MIXED SUPPLY**
Thermic mixing valve, LK 551 HydroMix, is included.

**LK 864 - LOADING UNIT**
Thermic loading valve LK 823 ThermoVar® is included to ensure both an optimal temperature stratification in the accumulator tank and a high return temperature to the boiler, which increases the system's efficiency.

Radiator
**LK 863**

Hot water
**LK 865**

Direct supply
**LK 861**

Manifold
**LK 860**

Loading
**LK 864**

High return
temperatur
**LK 866**

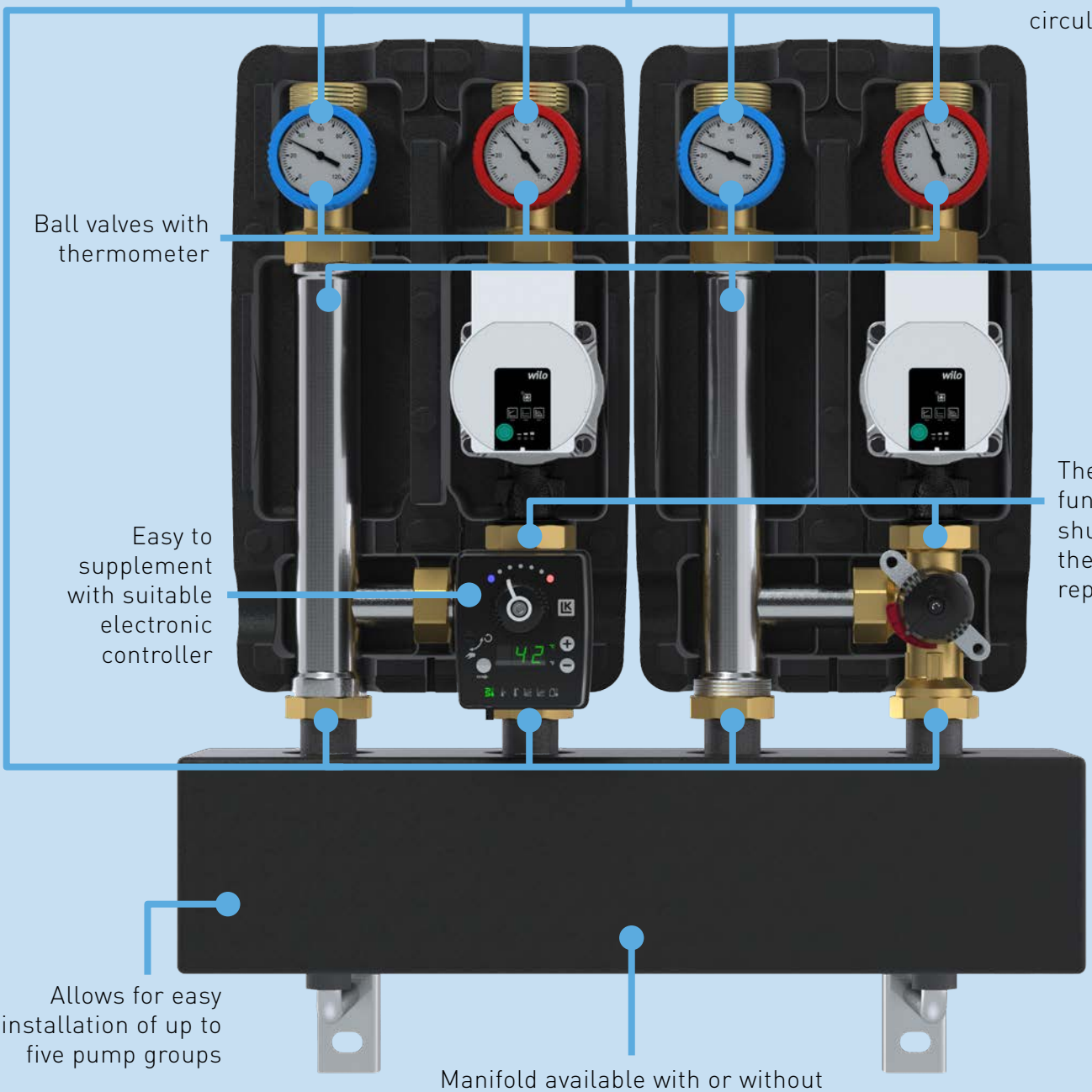
**LK 865 - COMPLETE UNIT FOR HOT WATER CIRCULATION**
Thermic mixing valve LK 551 HydroMix HWC is included.

**LK 866 - HIGH RETURN TEMPERATUR**
A four way mixing valve LK 841 ThermoMix® is included. Designed for heating systems where a high return temperature is required to prevent corrosion and thus extend the life length of the heat source.

**LK 867 - FOR TWO HEATING UNITS**
A bivalent mixing valve LK 830 ThermoMix® is included. Designed for heating systems, where energy is taken from two heating units connected in series or parallel or for storage tank systems where energy is extracted from two levels.

Two heating units
**LK 867**

# LK HydronicGroup C/C 125




Efficient, versatile, and easy to install, **LK HydronicGroup C/C 125** meets all your heating needs. Featuring a pump, insulation, two ball valves with a thermometer, and a wall mounting bracket, it's a complete package for direct or mixed supply heating systems. Pictured is the **LK 862 R** pump group, which includes a three-way mixing valve. The **LK 860** manifold supports up to five pump groups and includes a mounting bracket, allowing flexible integration of different groups in the same system.

# Pump Group

## LK HydronicGroup C/C 125

- All in one
- Easy to install
- Easy to combine with electronic regulation

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Ambient temperature | Min. 5 °C/Max. 58 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para 15-130/8-75/SC-9,<br>Wilo Para 25-180/6-43/SC-12,<br>Wilo Para 25-180/8-75/SC-12,<br>Wilo Para zKu 15-130/8 SC |
| Material valve body | Brass EN 12165 CW617N |
| Material insulation | Expanded Polypropylene EPP |

LK HydronicGroup is a complete pump group that is suitable for heating where direct supply or mixed supply is desirable. Consists of a highly efficient circulation pump, insulation, wall mounting bracket and two ball valves with thermometer, on the return side there is an integrated check valve.

LK 860 manifold available with or without hydraulic separator for one, two, three optionally four pump groups. Wall mounting bracket are included with the manifold.

LK 861 pump group where direct supply is desired.

LK 862 pump group where mixed supply is desired, a three-way mixing valve is included.

LK 863 pump group where mixed supply is desired, a thermic mixing valve is included. The LK 551 HydroMix has a thermostatic element that regulates the supply and return to achieve the desired supply temperature.

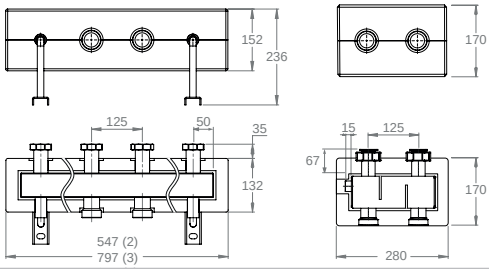
LK 864 pump group with a thermic loading valve LK 823 ThermoVar®. The pump group is intended to ensure both an optimal temperature stratification in the storge tank and high return temperature to the boiler, thus increasing the efficiency of the system.

LK 865 is a complete unit for hot water circulation. Consists of a mixing valve, cross, circulation pump, insulation, connection kit and three check valves. The LK 551 HydroMix mixing valve has a thermostatic element that regulates the supply of both cold and hot water to the desired temperature. The valve has an anti-scald function that closes for incoming hot water if the cold water supply ceases.

LK 866 is a pump group with a four way mixing valve, LK 841 ThermoMix®. The pumpgroup is designed for heating systems where a high return temperature is required to prevent corrosion and thus extend the life length of the heat source.

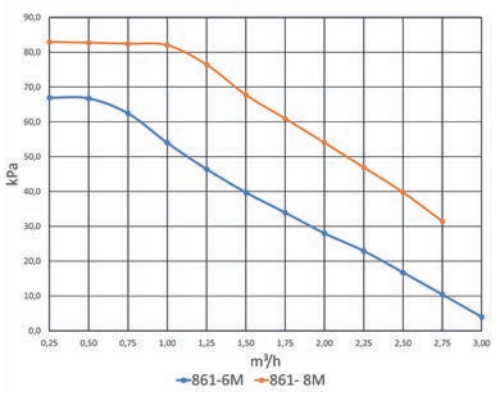
LK 867 is a pump group with a four way mixing valve, LK 830 ThermoMix® B. The pump group has a 4-way bivalent mixing valve that is designed for heating systems, where energy is taken from two heating units connected in series or parallel or for storage tank systems where energy is extracted from two levels. The pump group should be equipped with an automatic control unit to ensure that the most favourable heat source is prioritised at all times.

## LK 860 - Manifold

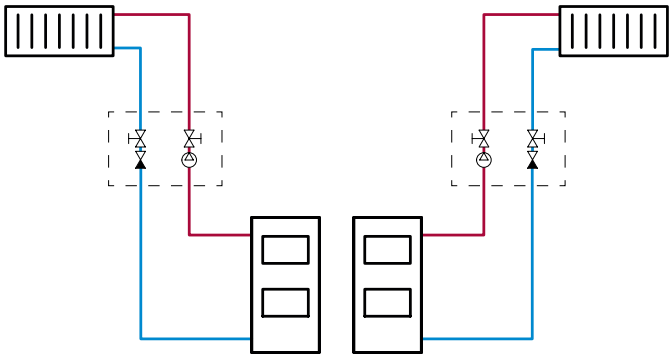



| Article no. | Type | Dim. | Note | Weight kg |
|---|---|---|---|---|
| 182419 | Manifold, 1 pc groups with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 5.0 |
| 182348 | Manifold, 2 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 6.0 |
| 182350 | Manifold, 2 pc groups with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 7.0 |
| 182349 | Manifold, 3 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 8.0 |
| 182351 | Manifold, 3 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 9.0 |
| 182417 | Manifold, 4 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 9.0 |
| 182418 | Manifold, 4 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 10.0 |

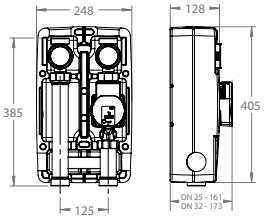
**LK 861 - PUMP CHARACTERISTICS**




**LK 861 - PUMP GROUP WITH DIRECT SUPPLY**

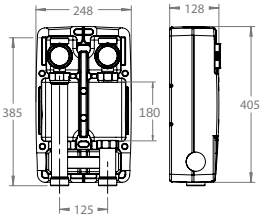


## LK 861 - Pump group with direct supply



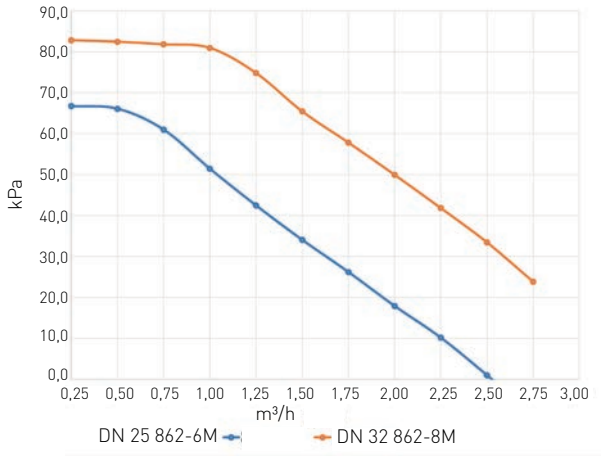

| Article no. | Dim. | DN | Weight kg |
|---|---|---|---|
| 299458 | M 1½" / F 1" x M 1½" | DN 25 | 5.0 |
| 299459 | M 1½" / F 1" x M 1½" | DN 32 | 5.2 |

## LK 861 - Pump group with direct supply. Whitout pump

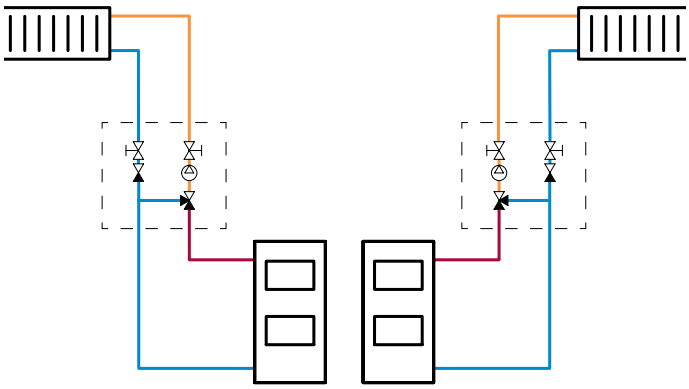



| Article no. | Dim. | Weight kg |
|---|---|---|
| 299460 | M 1½" / F 1" x M 1½" | 3.1 |

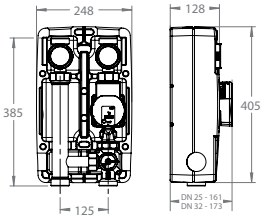
### LK 862 - PUMP CHARACTERISTICS




### LK 862 - PUMP GROUP WITH MIXING VALVE

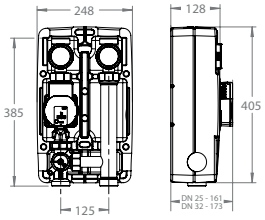


## LK 862 R - Pump group with mixed supply. Right version



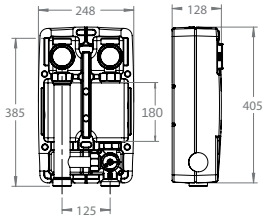

| Article no. | Dim. | DN | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|---|
| 299462 | M 1½" / F 1" x M 1½" | DN 25 | 6.3 | | 5.3 |
| 299464 | M 1½" / F 1" x M 1½" | DN 32 | 10.0 | | 5.5 |
| 396164 | M 1½" / F 1" x M 1½" | DN 25 | 6.3 | LK 950 (180759) | 5.8 |
| 396165 | M 1½" / F 1" x M 1½" | DN 25 | 10.0 | LK 950 (180759) | 6.0 |

## LK 862 L - Pump group with mixed supply. Left version



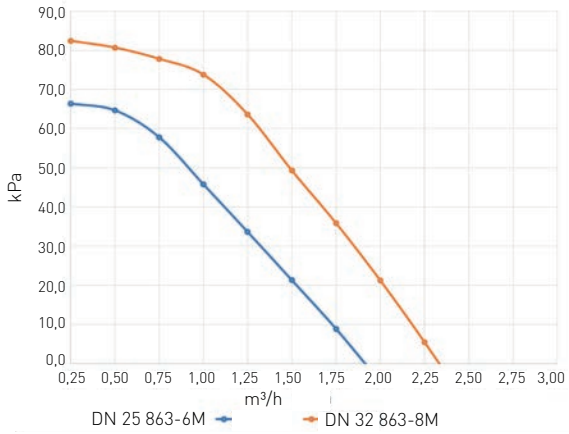

| Article no. | Dim. | DN | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299461 | M 1½" / F 1" x M 1½" | DN 25 | 6.3 | 5.3 |
| 299463 | M 1½" / F 1" x M 1½" | DN 32 | 10.0 | 5.5 |

## LK 862 - Pump group with mixed supply. Without pump

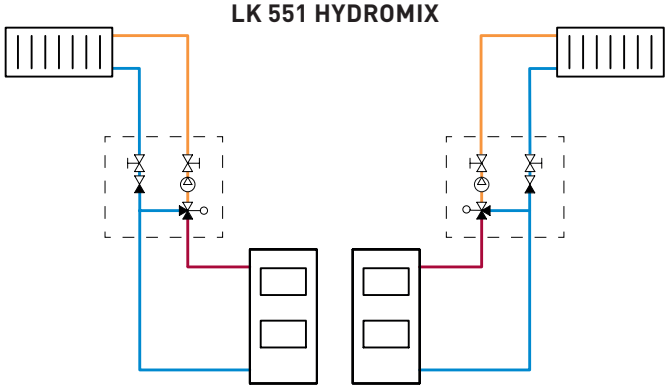



| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 299465 | M 1½" / F 1" x M 1½" | 6.3 | 3.1 |
| 299466 | M 1½" / F 1" x M 1½" | 10.0 | 3.1 |

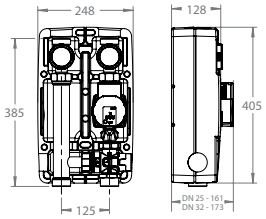
**LK 863 - PUMP CHARACTERISTICS**




**LK 863 - PUMP GROUP WITH MIXING VALVE LK 551 HYDROMIX**

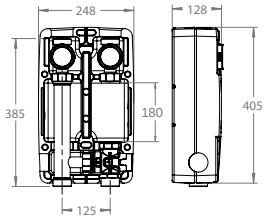


## LK 863 - Pump group with thermic mixing valve



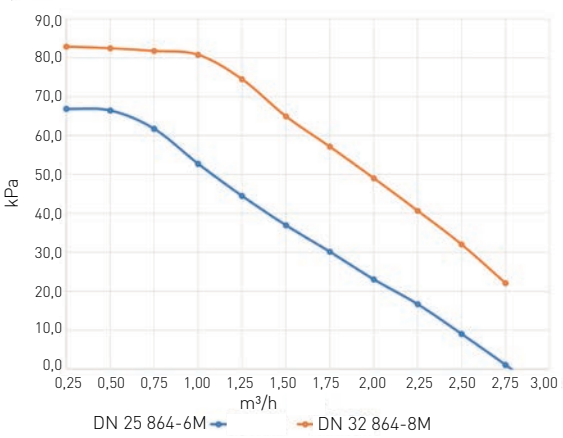

| Article no. | Dim. | DN | Note | Weight kg |
|---|---|---|---|---|
| 299467 | M 1½" / F 1" x M 1½" | DN 25 | Temperature: 25 - 45 °C | 5.8 |
| 299468 | M 1½" / F 1" x M 1½" | DN 32 | Temperature: 25 - 45 °C | 6.0 |
| 3926243 | M 1½" / F 1" x M 1½" | DN 32 | Temperature: 50 - 70 °C | 6.0 |

## LK 863 - Pump group with thermic mixing valve. Without pump

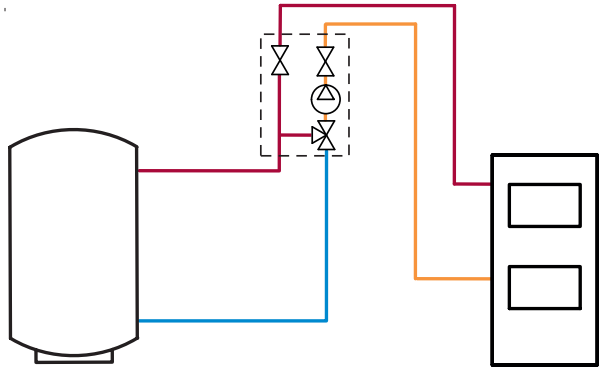



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 299469 | M 1½" / F 1" x M 1½" | Temperature: 25 - 45 °C | 4.0 |

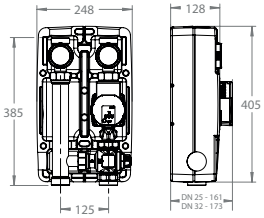
**LK 864 - PUMP CHARACTERISTICS**




**LK 864 - PUMP GROUP WITH THERMIC LOADING VALVE LK 823 THERMOVAR®**

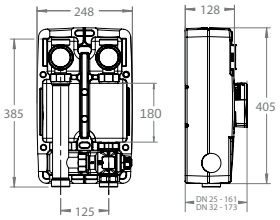


## LK 864 - Pump group with thermic loading valve, LK 823 ThermoVar®



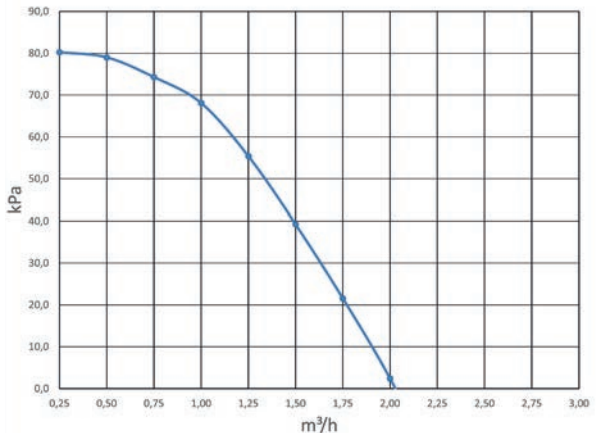

| Article no. | Dim. | DN | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|---|
| 299470 | M 1½" / F 1" x M 1½" | DN 25 | 9.0 | Opening temperature: 55 - 70 °C | 5.7 |
| 299471 | M 1½" / F 1" x M 1½" | DN 32 | 9.0 | Opening temperature: 55 - 70 °C | 5.9 |
| 299787 | M 1½" / F 1" x M 1½" | DN 25 | 9.0 | Opening temperature: 45 - 60 °C | 5.7 |
| 299788 | M 1½" / F 1" x M 1½" | DN 32 | 9.0 | Opening temperature: 45 - 60 °C | 5.9 |

## LK 864 - Pump group with thermic loading valve, LK 823 ThermoVar®. Without pump

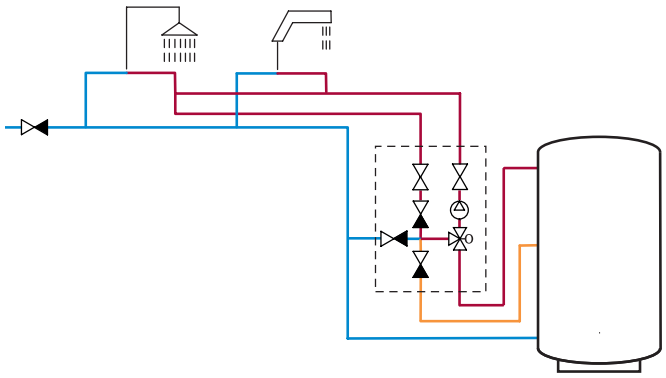



| Article no. | Dim. | DN | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|---|
| 299962 | M 1½" / F 1" x M 1½" | DN 25 | 9.0 | Opening temperature: 55 - 70 °C | 3.5 |

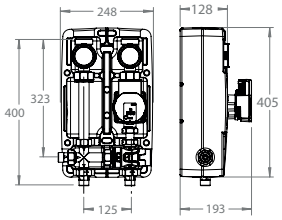
**LK 865 - PUMP CHARACTERISTICS**




**LK 865 - COMPLETE UNIT FOR HOT WATER CIRCULATION**

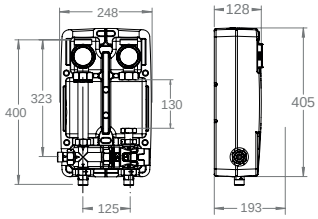


## LK 865 - Complete unit for hot water circulation



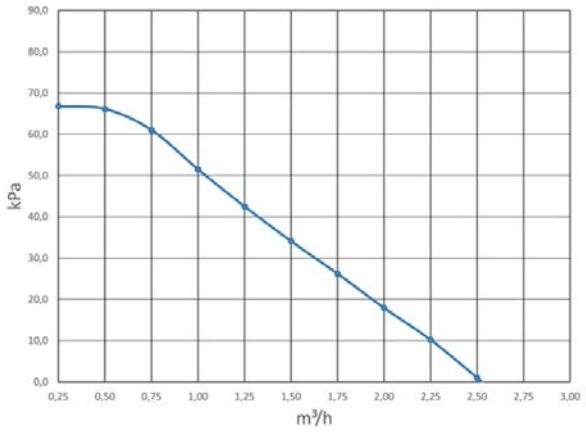

| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 299472 | F 1" x M 1" | Opening temperature: 35 - 65 °C | 4.9 |

## LK 865 - Complete unit for hot water circulation. Without pump

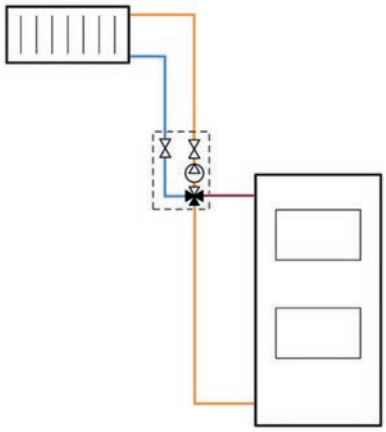



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 299963 | F 1" x M 1" | Opening temperature: 35 - 65 °C | 2.7 |

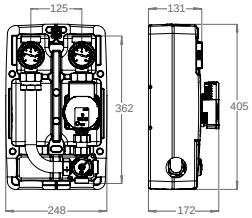
**LK 866 - PUMP CHARACTERISTICS**




**LK 866 - PUMP GROUP WITH A FOUR WAY MIXING VALVE, LK 841 THERMOMIX®**

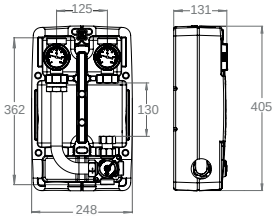


## LK 866 - Pump group with a four way mixing valve, LK 841 ThermoMix®



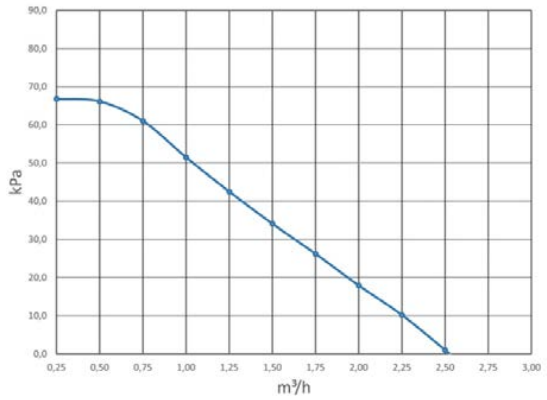

| Article no. | Dim. | DN | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299747 | M 1½" / F 1" x M 1" | DN 25 | 6.3 | 5.3 |

## LK 866 - Pump group with a four way mixing valve, LK 841 ThermoMix®. Without pump

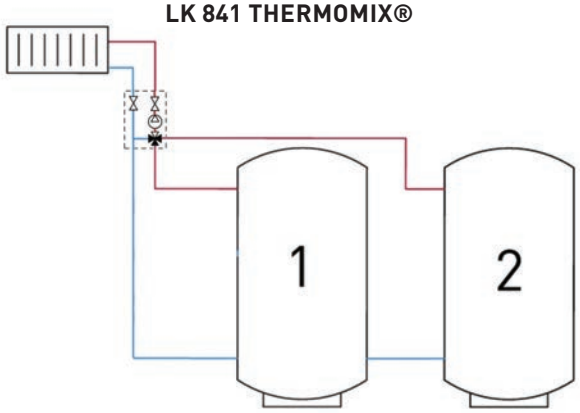



| Article no. | Dim. | DN | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299964 | M 1½" / F 1" x M 1" | DN 25 | 6.3 | 3.1 |

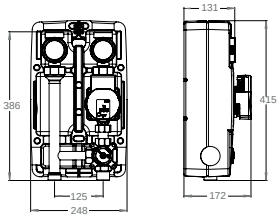
**LK 867 - PUMP CHARACTERISTICS**




**LK 867 - PUMP GROUP WITH A FOUR WAY MIXING VALVE, LK 841 THERMOMIX®**

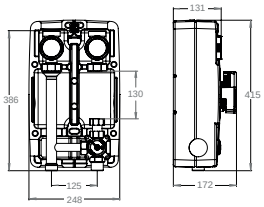



## LK 867 - Pump group with a four way mixing valve, LK 830 ThermoMix® B



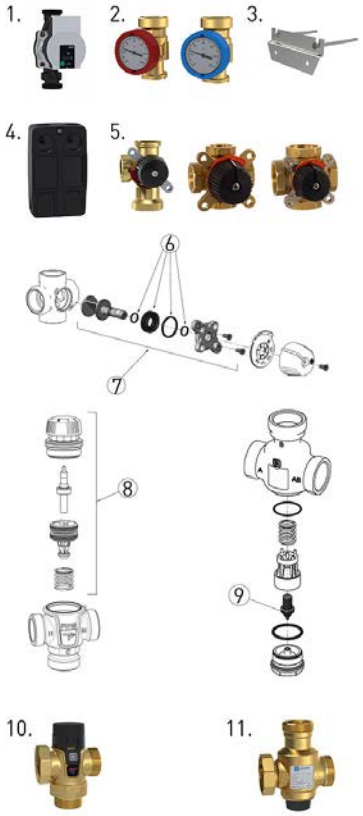

| Article no. | Dim. | DN | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299765 | M 1½" / F 1" x M 1" | DN 25 | 6.3 | 5.3 |

## LK 867 - Pump group with a four way mixing valve, LK 830 ThermoMix® B. Without pump




| Article no. | Dim. | DN | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299965 | M 1½" / F 1" x M 1" | DN 25 | 6.3 | 3.1 |

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187203 | Wilo PARA 25-180/8-75/SC | 1 |
| 187322 | Wilo PARA 25-180/6-43/SC | 1 |
| 187227 | Wilo PARA 15-130/8-75/SC-9 | 1 |
| 187323 | Ballvalve, blue | 2 |
| 187324 | Ballvalve, red | 2 |
| 187325 | Bracket | 3 |
| 187326 | EPP Insulation | 4 |
| 182766 | LK 840 ThermoMix HG Kvs 6,3 | 5 |
| 182767 | LK 840 ThermoMix HG Kvs 10 | 5 |
| 181949 | LK 840 Mixing Valve (866), Kvs 6.3 | 5 |
| 180588 | LK 830 Mixing Valve (867), Kvs 6.3 | 5 |
| 187188 | Sealing kit LK 840/841 DN 25 | 6 |
| 187195 | Repair kit 841 2.0, DN 25 | 7 |
| 187062 | Repair kit 830, DN 15-20, Kvs 6.3 | 7 |
| 095349 | Repair kit 551, 25 - 45 °C, Kvs 3.2-4.2 | 8 |
| 095350 | Repair kit 551, 35 - 65 °C, Kvs 3.2-4.2 | 8 |
| 187330 | Repair Kit 823R | 9 |
| 182431 | LK 551 (863), 25 - 45 °C | 10 |
| 182389 | LK 823R (864), 55 - 70 °C | 11 |
| 182447 | LK 823R (864), 45 - 60 °C | 11 |

# Pump Group

## LK HydronicGroup C/C 90

- All in one
- Easy to install
- Easy to combine with electronic regulation

**TECHNICAL DATA**

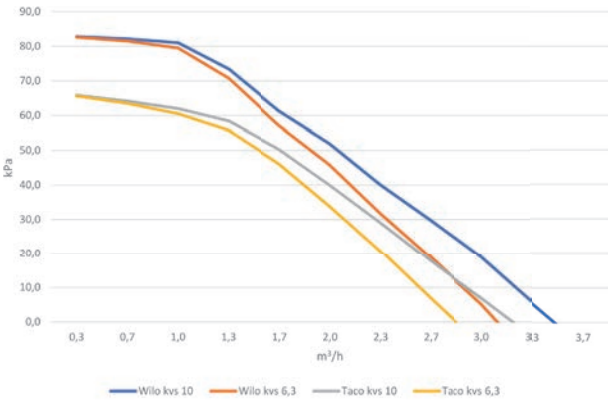
| | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Leakage | < 0,2% of Kvs at 100 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 100 °C |
| Ambient temperature | Min. 5 °C/Max. 58 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Wilo: Water - Glycol mixture max. 50% |
| Media 2 | Taco: Water - Glycol mixture max. 30% |
| Circulating pump | Wilo Para 15-130/8-75/SC-9,<br>Taco ES2C 15-70-130 |
| Material, valve body | Brass EN 12165 CW617N |
| Material, insulation | Expanded Polypropylene EPP |

LK HydronicGroup is a complete pump group that is suitable for heating systems where direct supply or mixed supply is desirable.

LK HydronicGroup comprises a high efficient circulation pump, insulation, wall mounting bracket and two ball valves with thermometer. In the model where mixed supply is desired, a three-way mixing valve is included.

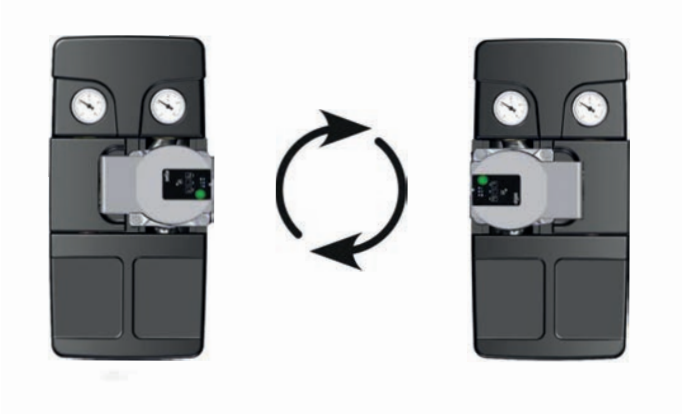
A manifold for two, optionally three, pump groups is available as an accessory, see accessories and spare parts. Wall mounting bracket is not included with manifold, it must be ordered separately, see accessories and spare parts.

**CAPACITY DIAGRAM**

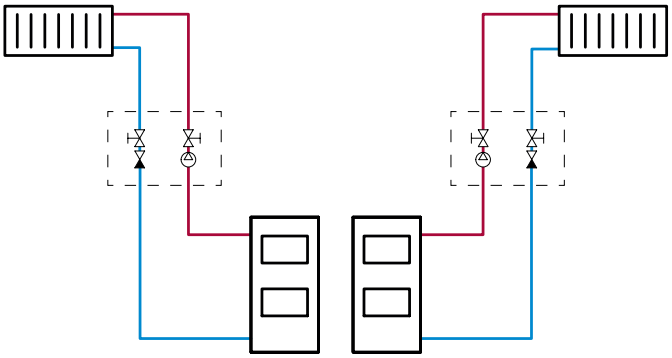



**LK 861 RIGHT**

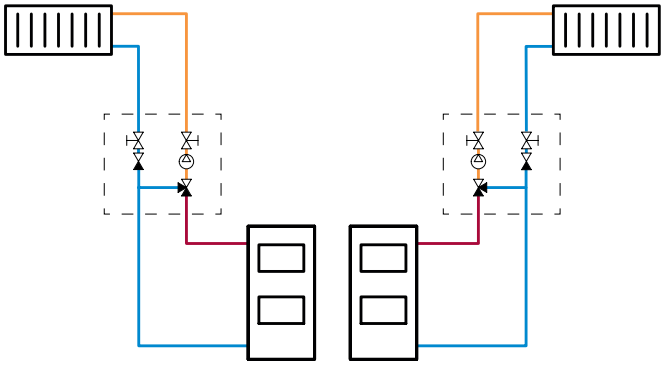
**LK 861 LEFT**



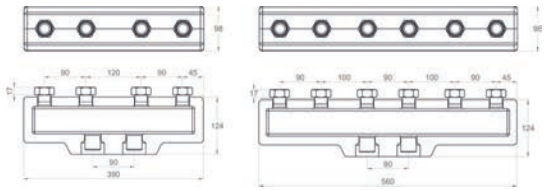
**PUMP GROUP WITH DIRECT SUPPLY**



**PUMP GROUP WITH MIXING VALVE**

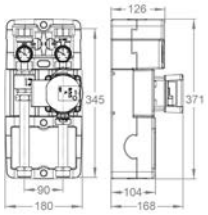


## LK 860 - Manifold



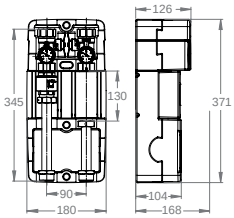
| Article no. | Type | Dim. | Note | Weight kg |
|---|---|---|---|---|
| 182125 | Manifold 2 pc groups | F 1" x M 1" | 0.3 MPa (3 Bar) | 3.3 |
| 182126 | Manifold 3 pc groups | M 1" x F 1" | 0.3 MPa (3 Bar) | 4.5 |

## LK 861 - Pump group with direct supply



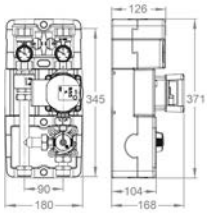

| Article no. | Type | Dim. | Weight kg |
|---|---|---|---|
| 299172 | Wilo PARA 15-130/8-75/SC-9 | F 1" x M 1" | 3.7 |
| 299174 | Taco ES2C 15-70-130 | F 1" x M 1" | 3.7 |

## LK 861 - Pump Group with direct supply. Without pump



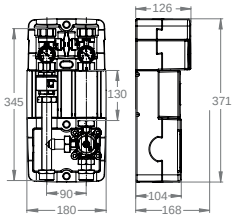

| Article no. | Dim. | Weight kg |
|---|---|---|
| 299842 | F 1" x M 1" | 1.7 |

## LK 862 R - Pump group with mixed supply. Right version




| Article no. | Type | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|---|
| 299171 | Wilo PARA 15-130/8-75/SC-9 | F 1" x M 1" | 6.3 / 10.0 | 4.0 |
| 299173 | Taco ES2C 15-70-130 | F 1" x M 1" | 6.3 / 10.0 | 4.0 |

## LK 862 R - Pump group with mixed supply. Without pump




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 299841 | F 1" x M 1" | 6.3 /10.0 | 2.0 |

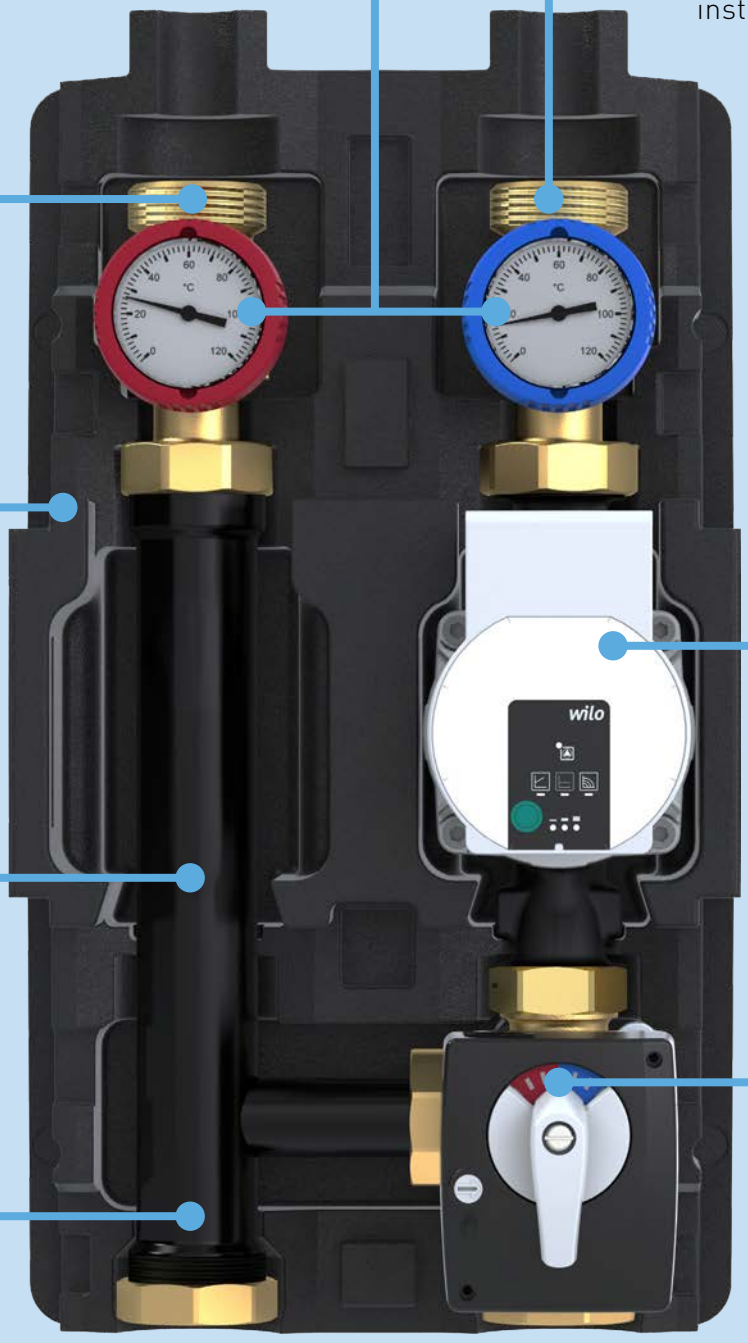
## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 187227 | Wilo PARA 15-130/8-75/SC-9 | 1 |
| 187228 | Taco ES2C 15-70-130 | 1 |
| 187229 | Bracket for manifold | 2 |
| 187230 | EPP Insulation | 3 |
| 187231 | Ballvalve, LK 316 F1" / F1" | 4 |
| 095018 | Thermometer T40, 0 - 80 °C | 5 |
| 182765 | LK 850 ThermoMix HG Kvs 6,3/10 | 6 |
| 187190 | Repair kit LK 840 DN 15-20 | 7 |
| 092366 | LK 322 CoolUnit 1" | 8 |

# LK HydronicGroup C/C 125 Cooling

The primary and secondary valves are designed with external 1½" and 1" internal thread for easy and quick installation

Ball valves with thermometer




Stable, two-piece insulation

Pump not covered by insulation

The pipe is cataphoresis-treated to resist corrosion

Easy to supplement with suitable electronic controller. The mixing valve also functions as a shut-off valve in the event of a pump replacement

Integrated check valve to prevent self-circulation, also serves as a gasket between ball valve and pipe

The **LK HydronicGroup C/C 125 Cooling** is a complete pump group for both cooling and heating systems, offering both direct and mixed supply options. It includes a circulation pump, insulation, and ball valves with thermometers. The pipe is cataphoresis-treated to resist corrosion. The pictured **LK 862 Cooling** features a three-way mixing valve and, for cooling, requires an actuator like the LK 950 or LK 100 SmartComfort CT to prevent condensation and frost.

# Pump Group

## LK HydronicGroup C/C 125 Cooling

- For both cooling and heating applications
- Pipe is cataphoresis-treated to resist corrosion
- Easy to combine with electronic regulation

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Ambient temperature | Min. 5 °C/Max. 58 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para 25-180/6-43/SC-12,<br>Wilo Para 25-180/8-75/SC-12 |
| Material, valve body | Brass EN 12165 CW617N |
| Material, insulation | Expanded Polypropylene EPP |

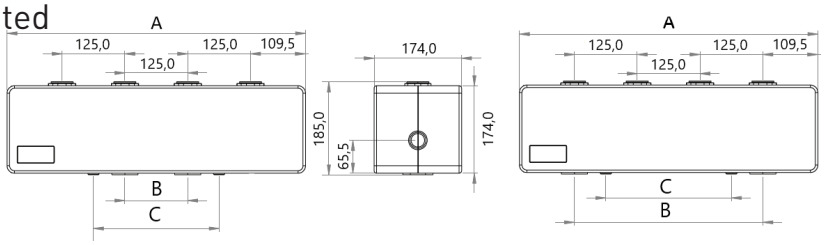
LK HydronicGroup Cooling is a complete pump group that is suitable for heating and cooling where direct supply or mixed supply is desirable. Consists of a highly efficient circulation pump, insulation, and two ball valves with thermometer, on the return side there is an integrated check valve. Cataphoresis treated pipe to resist against corrosion.
When installing LK HydronicGroup c/c 125 Cooling onto the LK 860 manifold, the mounting kit (part no. 095515) should be used to prevent condensation

LK 861 C pump group where direct supply is desired.

LK 862 C pump group where mixed supply is desired, a three-way mixing valve is included. For cooling applications, LK 862 C must be supplemented with actuator, LK 950 or LK SmartComfort, so condensation does not leak into the insulation and forms frost.

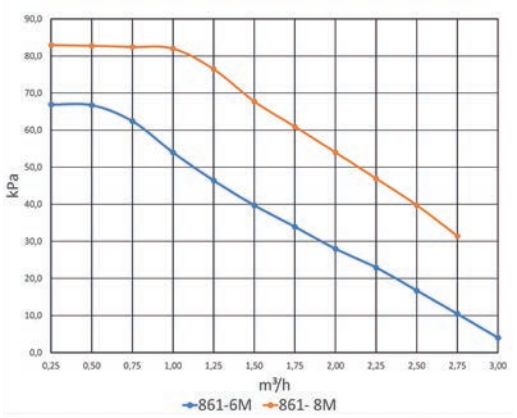
Insulation is only suitable for Wilo PARA 6 and 8 meter.

## LK 860 - Manifold - Cataphoresis treated



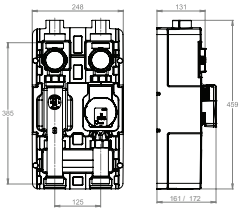

| Article no. | Type | Dim. | Note | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|
| 50802085 | Manifold, 1 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 294 | 125 | - | 2.5 |
| 50802086 | Manifold, 2 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 594 | 125 | 500 | 6.0 |
| 50802087 | Manifold, 2 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 594 | 375 | 250 | 7.0 |
| 50802088 | Manifold, 3 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 844 | 125 | 500 | 8.0 |
| 50802089 | Manifold, 3 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 844 | 625 | 500 | 9.0 |
| 50802090 | Manifold, 4 pc groups, without hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 1094 | 125 | 750 | 9.0 |
| 50802091 | Manifold, 4 pc groups, with hydraulic separator | M 1½" | 0.4 MPa (4 bar) | 1094 | 875 | 750 | 10.0 |

**LK 861 COOLING - PUMP CHARACTERISTICS**



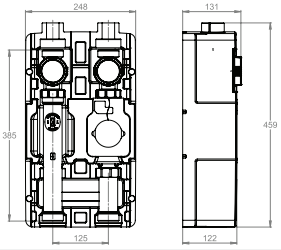

**LK 861 LEFT - LK 861 RIGHT**

## LK 861 Cooling - Pump group with direct supply



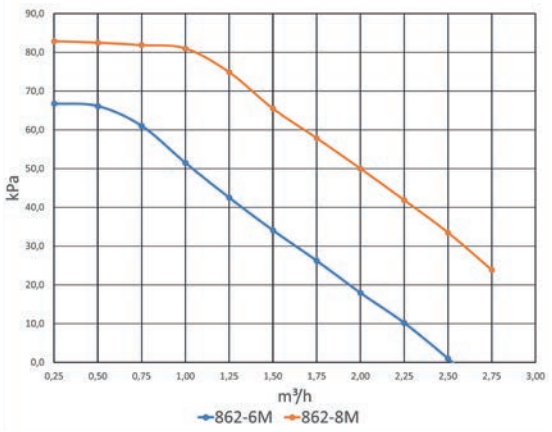
| Article no. | Dim. | DN | Note | Weight kg |
|---|---|---|---|---|
| 396427 | M 1½" / F 1" x M 1½" | DN 25 | Wilo Para 25-180/6 | 5.1 |
| 396428 | M 1½" / F 1" x M 1½" | DN 32 | Wilo Para 25-180/8 | 5.3 |

## LK 861 Cooling - Pump group with direct supply. Without pump



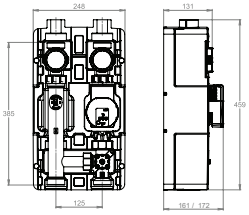
| Article no. | Dim. | Weight kg |
|---|---|---|
| 396200 | M 1½" / F 1" x M 1½" | 3.3 |

**LK 862 - PUMP CHARACTERISTICS**



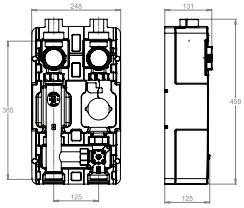

**LK 862 LEFT - LK 862 RIGHT**

## LK 862 Cooling - Pump group with mixed supply. Right version



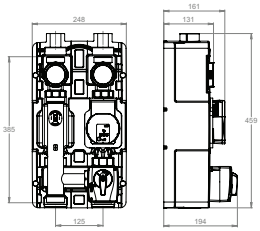
| Article no. | Dim. | DN | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|---|
| 396425 | M 1½" / F 1" x M 1½" | DN 25 | 6.3 | Wilo Para 25-180/6 | 5.8 |
| 396426 | M 1½" / F 1" x M 1½" | DN 32 | 10.0 | Wilo Para 25-180/8 | 5.8 |

## LK 862 Cooling - Pump group with mixed supply. Without pump



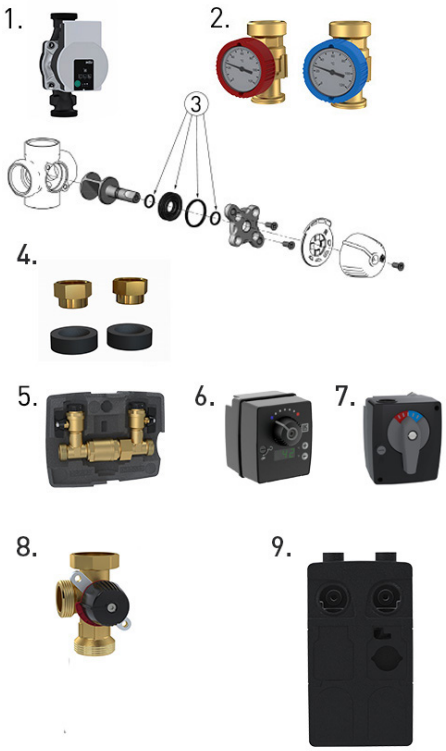
| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 396199 | M 1½" / F 1" x M 1½" | 6.3 | 4.0 |
| 396424 | M 1½" / F 1" x M 1½" | 10.0 | 4.0 |

## LK 862 Cooling - Pump group with mixed supply. With LK 950 Actuator



| Article no. | Dim. | DN | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|---|
| 396465 | M 1½" / F 1" x M 1½" | DN 25 | 6.3 | 180756 LK 950 Actuator | 6.2 |
| 396466 | M 1½" / F 1" x M 1½" | DN 32 | 10.0 | 180756 LK 950 Actuator | 6.2 |

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187322 | Wilo PARA 25-180/6-43/SC-12 | 1 |
| 187203 | Wilo Para 25-180/8-75/SC-12 | 1 |
| 187323 | Ballvalve, blue | 2 |
| 187324 | Ballvalve, red | 2 |
| 187188 | Sealing kit LK 840/841 DN 25 | 3 |
| 095515 | Connection kit | 4 |
| 092366 | LK 322 CoolUnit | 5 |
| 181242 | LK 100 SmartComfort CT | 6 |
| 180765 | LK 950 Valve Actuator | 7 |
| 182766 | LK 840 ThermoMix HG Kvs 6,3 | 8 |
| 182767 | LK 840 ThermoMix HG Kvs 10 | 8 |
| 187963 | LK Insulation | 9 |

# Pump Group

## LK HydronicGroup C/C 90 Cooling

- For both cooling and heating applications
- Easy to install
- Easy to combine with electronic regulation

**TECHNICAL DATA**

| | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Leakage | < 0,2% of Kvs at 100 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. -15 °C/Max. 100 °C<br>Supply temperature: Min. 5 °C |
| Ambient temperature | Min. 5 °C/Max. 58 °C |
| Thread standard | Rp - female thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para 15-130/8-75/SC-9 |
| Material, valve body | Brass EN 12165 CW617N |
| Cooling efficiency | 7 kW (ΔT 10 °C 10 l/min.) |

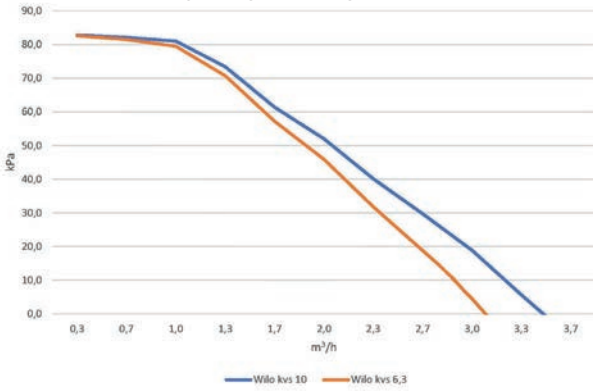
LK HydronicGroup is a complete pump group that is suitable for cooling systems where mixed supply is desirable.

By running the brine in the collector hose to a fan coil, you can cool your home with the cold naturally found in the ground. In addition, the borehole is recharged during the summer, which increases the performance of the heat pump.

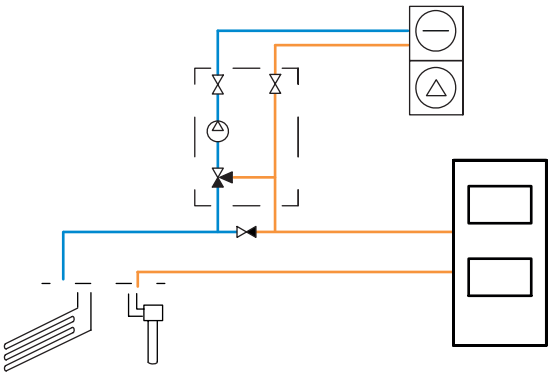
HydronicGroup C/C 90 Cooling is suitable to combine with the LK 322 CoolUnit which ensures the liquid is run in the right direction.

LK HydronicGroup comprises a high efficient circulation pump, insulation, wall mounting bracket and two ball valves with thermometer. In the model where mixed supply is desired, a three-way mixing valve is included.

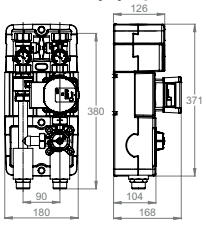
**CAPACITY DIAGRAM**




**PUMP GROUP FOR PASSIVE COOLING**



## LK 862 Cooling - Pump group with mixed supply. Right version

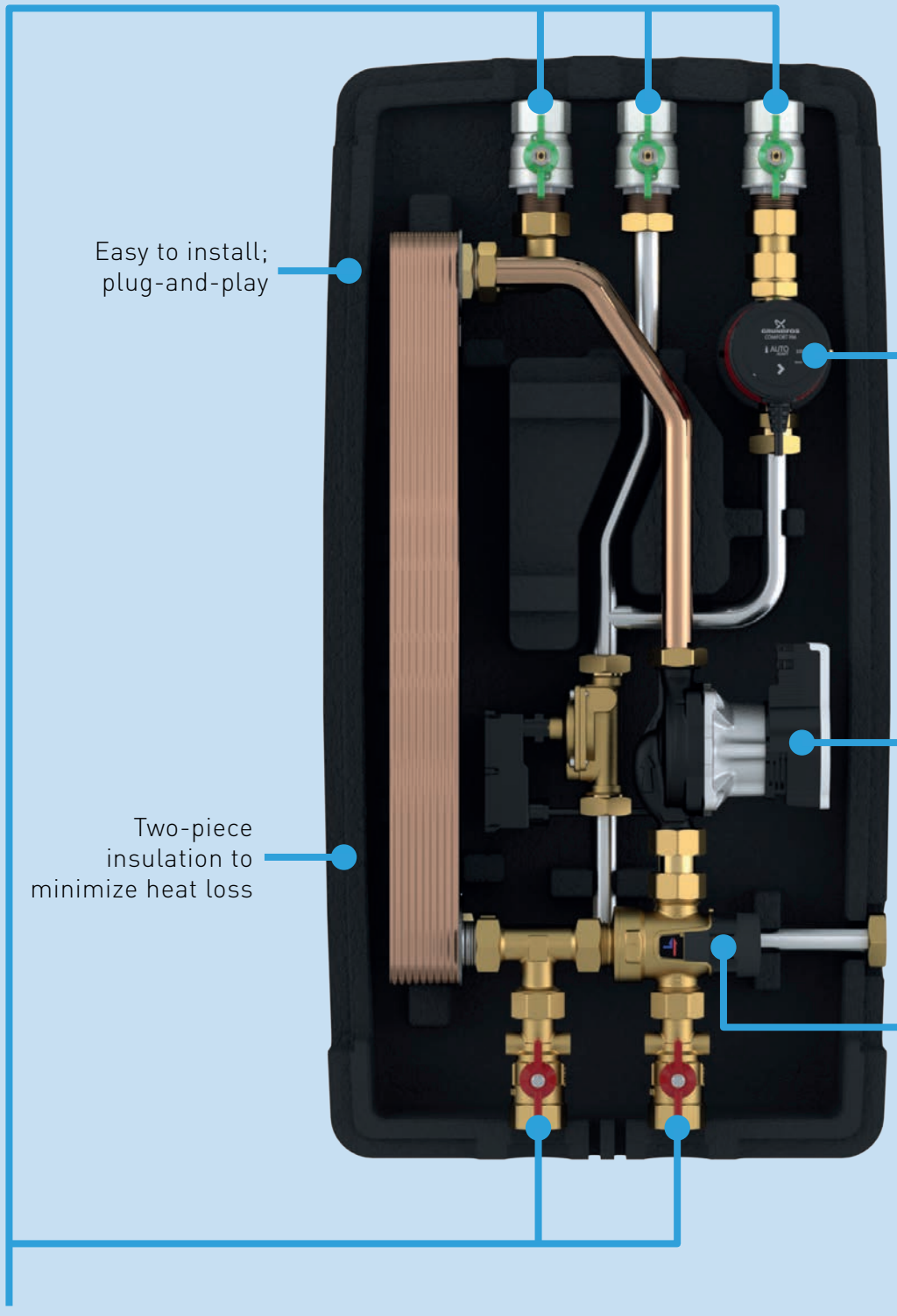



| Article no. | Dim. | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|
| 299387 | F 1" x M 1" | 6.3 /10.0 | Wilo PARA 15-130/8-75/SC-9 | 4.0 |

## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 187227 | Wilo PARA 15-130/8-75/SC-9 | 1 |
| 187228 | Taco ES2C 15-70-130 | 1 |
| 187229 | Bracket for manifold | 2 |
| 187230 | EPP Insulation | 3 |
| 187231 | Ballvalve, LK 316 F1" / F1" | 4 |
| 095018 | Thermometer T40, 0 - 80 °C | 5 |
| 182765 | LK 850 ThermoMix HG Kvs 6,3/10 | 6 |
| 187190 | Repair kit LK 840 DN 15-20 | 7 |
| 092366 | LK 322 CoolUnit 1" | 8 |

# LK 250 TapWater Unit



Easy to install; plug-and-play

The hot water circulation kit, available as an accessory, ensures consistent hot water temperature throughout the domestic water system

Circulation pump activates as needed, saving energy and costs

Two-piece insulation to minimize heat loss

LK 551 HydroMix mixing valve with a thermostatic element and anti-scald protection

Valves with 1" internal threads

**LK 250 TapWater Unit** delivers hot water with precision. Whether you choose the electronic controller or the thermic mixing valve model, both options ensure reliable temperature control. The circulation pump is only active when hot water is required, which reduces energy consumption. A hot water circulation kit is available to maintain a consistent temperature throughout the house.

# Tap Water Unit

## LK 250 TapWater Unit

- Easy to install - Plug-and-Play
- Scald protection with LK 551 HydroMix
- Available with anti-limestone coated heat exchanger.

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Max. working pressure | 1,0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Ambient temperature | Min. 5 °C/Max. 55 °C |
| Thread standard | G - female thread |
| Media | Water - Glycol mixture max. 50% |
| Circulating pump | Wilo Para 15-130/8 IPWM1<br>Wilo PARA 15-130/8-75/SC-9 |
| Material insulation | Expanded Polypropylene EPP |

**CAPACITY**

| Hot water primary °C | Tap water temp. °C | Tap water capacity l/min. | Hot water return °C | Performance kW |
|---|---|---|---|---|
| 80 | 45 | 52 | 13 | 128 |
| 75 | 45 | 50 | 13 | 119 |
| 70 | 45 | 46 | 14 | 112 |
| 65 | 45 | 43 | 14 | 103 |
| 60 | 45 | 38 | 15 | 91 |
| 55 | 45 | 32 | 16 | 76 |
| 50 | 45 | 26 | 19 | 62 |

The LK 250 TapWater Unit is a device for heating tap water.

LK 250 TapWater Unit P has an electronic controller unit that regulates the desired tap water temperature and at the same time regulates the inlet temperature to the plate heat exchanger to protect it from limestone.

The LK 250 TapWater Unit P consists of a plate heat exchanger, circulation pump, flow sensor, safety valve and an electronic controller.

The temperature of the tap water can be adjusted between 40 and 65 °C. The circulation pump only runs when hot water is required, which reduces energy consumption.

LK 250 TapWater Unit
Unlike the LK 250 TapWater Unit P, this unit has a thermic mixing valve which, instead of an electronic controller, regulates the tap water temperature and at the same time regulates the inlet temperature to the plate heat exchanger to protect it from limescale deposits.

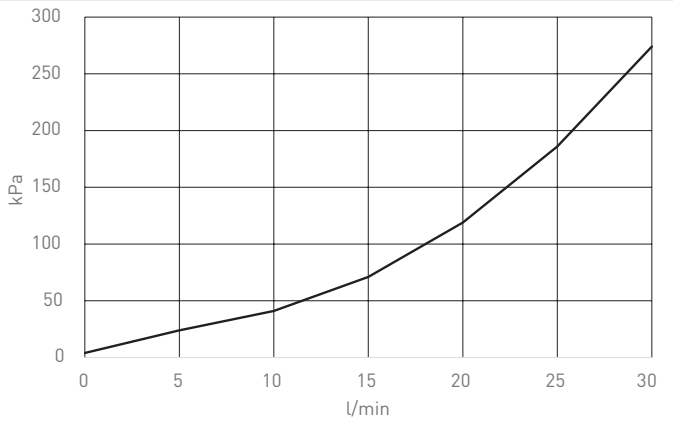
The LK 250 TapWater Unit consists of a plate heat exchanger, circulation pump, flow sensor, safety valve and a mixing valve.

The temperature of the tap water can be adjusted between 35 and 65°C. The circulation pump only runs when tap water is needed, which reduces energy consumption.

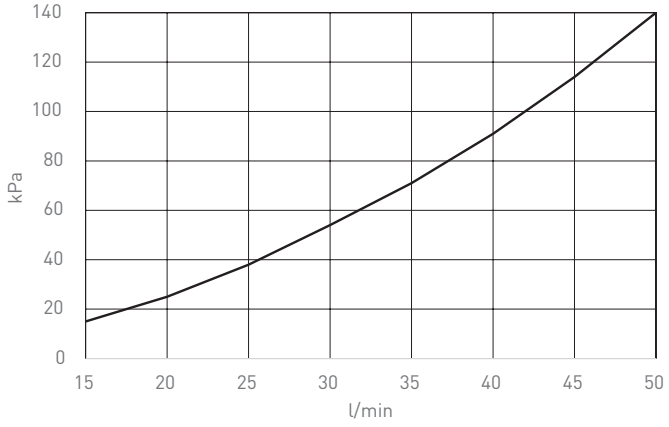
When choosing a tap water unit, it is important to know the water quality in the area where the unit will be installed.

A hot water circulation kit is available as an accessory used to maintain the intended hot water temperature in the entire domestic hot water system, which is particularly suitable in buildings where a tap point is located some distance away.

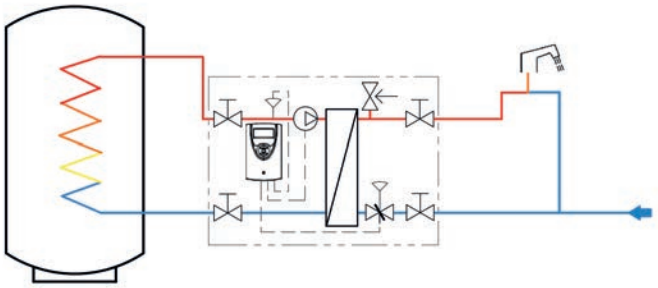
**PRESSURE DROP DIAGRAM - LK 250 M**



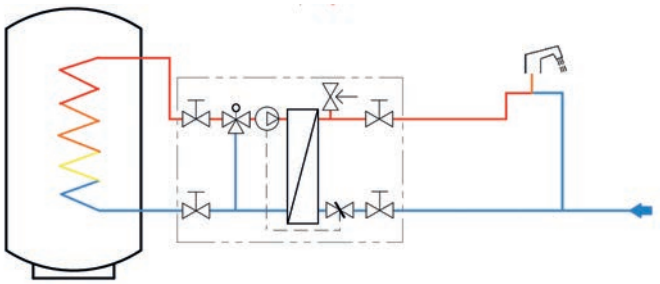

**PRESSURE DROP DIAGRAM - LK 250 P**



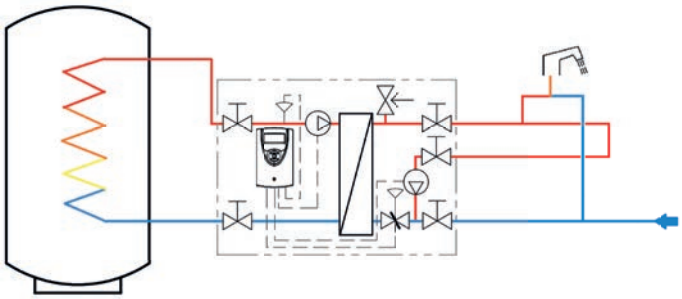
**LK 250 TAPWATER UNIT P - WITH CONTROLLER**



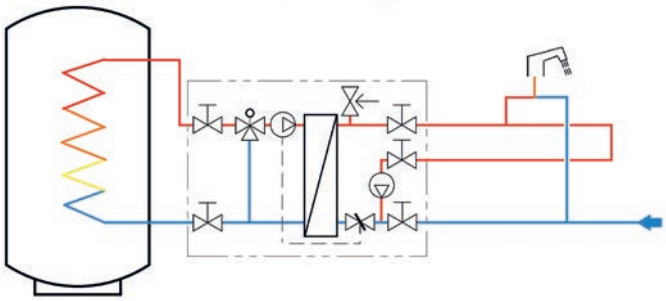
**LK 250 TAPWATER UNIT - WITHOUT CONTROLLER**



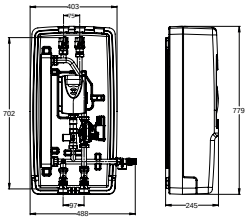
**LK 250 TAPWATER UNIT P - WITH CONTROLLER AND HOT WATER CIRCULATION**



**LK 250 TAPWATER UNIT - WITHOUT CONTROLLER WITH HOT WATER CIRCULATION**

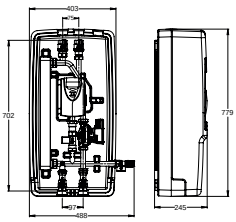


## LK 250 P - Female thread



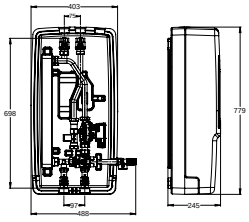

| Article no. | Dim. | Weight kg |
|---|---|---|
| 396003 | F 1" | 12.4 |

## LK 250 P - Female thread - with anti-limestone coated heat exchanger



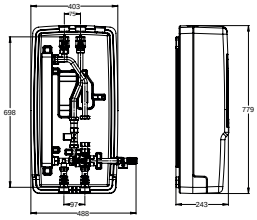

| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 396008 | F 1" | With anti-limestone coated heat exchanger | 12.4 |

## LK 250 - Female thread - without controller



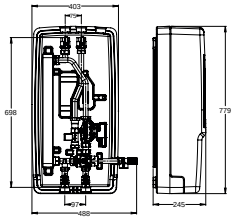

| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 396001 | F 1" | Without controller | 12.0 |

## LK 250 - Female thread - without pump and controller



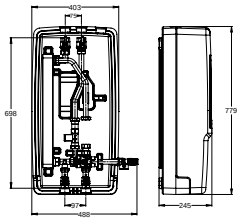
| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 396002 | F 1" | Without pump and controller | 11.0 |

## LK 250 - Female thread - without controller, with anti-limestone coated heat exchanger



| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 396006 | F 1" | Without controller, with anti-limestone coated heat exchanger | 12.0 |

## LK 250 - Female - without pump and controller, with anti-limestone coated heat exchanger

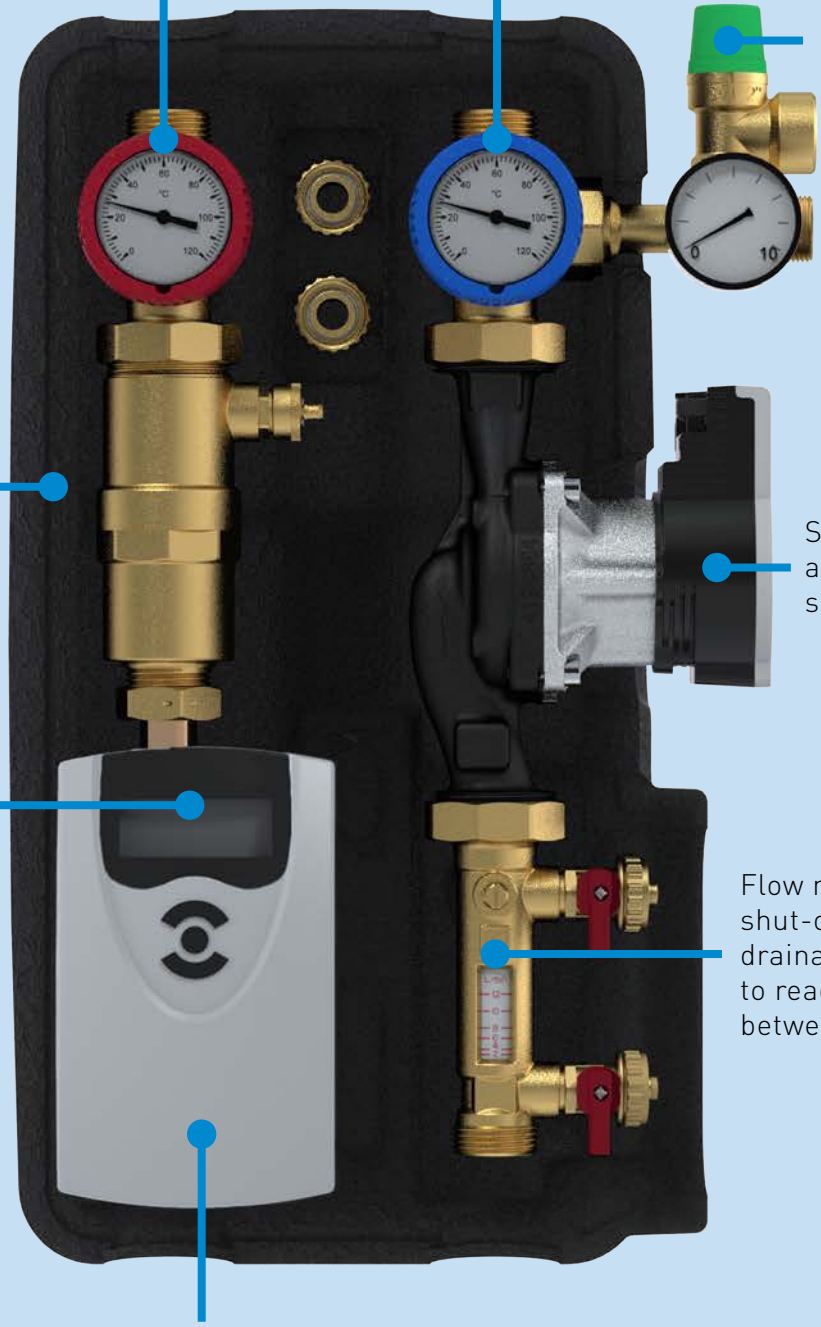


| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 396007 | F 1" | Without pump and controller, with anti-limestone coated heat exchanger | 11.0 |

**SPARE PARTS AND ACCESSORIES**


| Article no. | Article | Position |
|---|---|---|
| 092360 | Hot water circulation kit | 1 |
| 182742 | Controller, LK TapWater | 2 |
| 095472 | Wilo PARA IPWM1 15-130/8 | 3 |
| 187227 | Wilo PARA 15-130/8-75/SC-9 | 4 |
| 095476 | EPP Insulation | 5 |
| 095480 | Flow sensor P | 6 |
| 095481 | Flow sensor | 7 |
| 182199 | LK 551 HydroMix | 8 |

# LK 212 SolarStation



Check valves integrated in ball valves to prevent self circulation

Safety group with manometer, safety valve and connection for expansion vessel

Two-part insulation for easy access

Select either a Wilo or a Grundfos pump to suit your preferences

10 preset hydraulic schedules, prominently displayed

Flow meter with shut-off, filling and drainage valves. Easy to read current flow between 2-12 l/m

Elevate your system's intelligence by choosing either the CS Plus controller or the SLL controller

**LK 212 SolarStation** is your compact, dual-pipe solar pump unit, available with or without a controller. It's the complete package, equipped with all the essential components for ensuring the safe and efficient operation of your solar heating system.

# Solar Pump Unit

## LK 212 SolarStation

- Reduced energy costs by using solar power
- Adapted for 180 mm circulation pump
- Connections with 3/4" female thread and 1" male thread

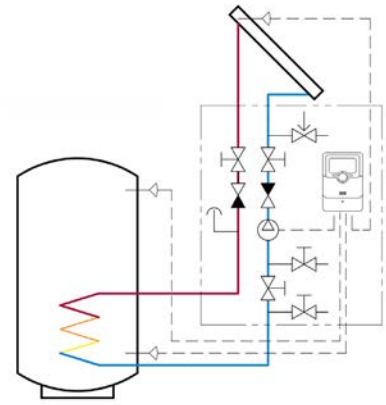
| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC ± 10%, 50 Hz |
| Max. working pressure | 1,0 MPa (10 bar) |
| Operating pressure | 0,6 MPa (6 bar) |
| Working temperature | Supply: Max. 140 °C<br>Return: Max. 110 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Protection type | IP 20 |
| Media | Water - Glycol mixture max. 50% |
| Sensors | PT 1000 |
| Circulating pump | Grundfos UPM3 Solar 25-75 180,<br>Wilo Para ST 25-180/8 IPWM2 |

LK 212 SolarStation is a compact dual-pipe solar pump unit. It contains all the necessary components for a safe operation and control of the solar heating system such as safety group, 180 mm circulating pump, ball valve with integrated check valve and thermometer, air separator with manual air vent connection, flow meter with shut-off, filling and drainage valves.

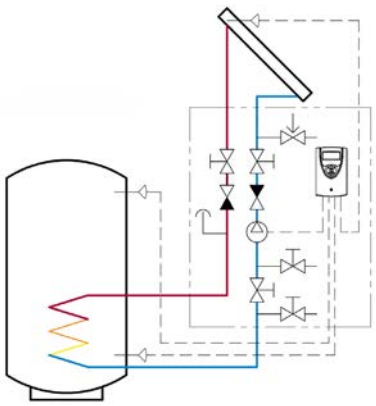
Option of selecting between two different controllers, LK 152 SmartSolar SLL or LK 152 SmartSolar CS Plus. A variant without a controller and/or circulation pump is also optional if you wish to supply it yourself.

LK 152 SmartSolar SLL and SC Plus has both 10 preset hydraulic schedules. The chosen hydraulic schedule and operating status is shown on the display.

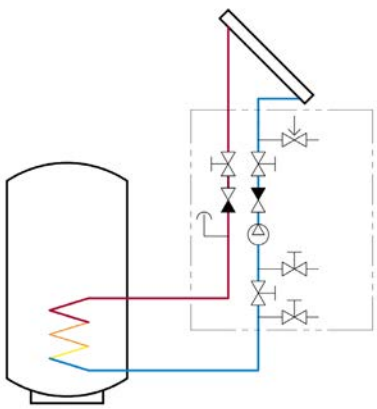
**LK 212 SOLARSTATION WITH LK 152 SMARTSOLAR SLL**



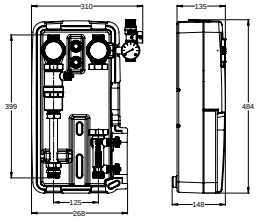
**LK 212 SOLARSTATION WITH LK 152 SMARTSOLAR CS PLUS**



**LK 212 SOLARSTATION WITHOUT CONTROLLER**

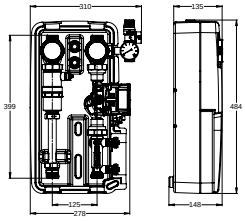


## LK 212 - Female / male thread - without pump and controller



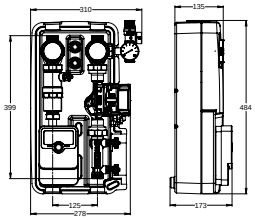

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 299999 | F ¾" / M 1" | 2-12 l/min. | Without pump and controller | 3.6 |

## LK 212 - Female / male thread - without controller



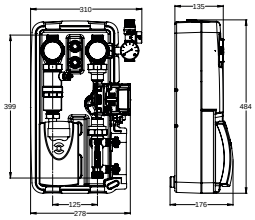

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 299998 | F ¾" / M 1" | 2-12 l/min. | With Grundfos pump, without controller | 5.6 |
| 396039 | F ¾" / M 1" | 2-12 l/min. | With Wilo pump, without controller | 5.6 |

## LK 212 - Female / male thread - with LK 152 SmartSolar SLL



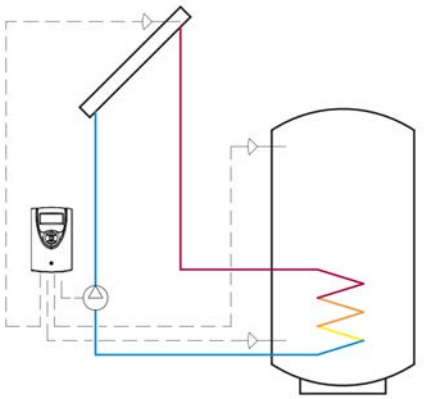

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396000 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Grundfos pump | 6.0 |
| 396040 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Wilo pump | 6.0 |

## LK 212 - Female / male thread - with LK 152 SmartSolar CS Plus

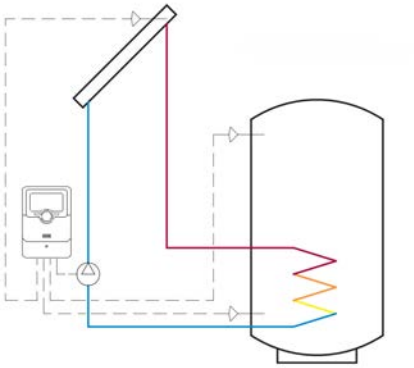



| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396050 | F ¾" x M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Wilo pump | 6.0 |
| 396051 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Grundfos pump | 6.0 |

## LK 152 SMARTSOLAR CS PLUS



## LK 152 SMARTSOLAR SLL



## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 182675 | LK 152 SmartSolar SLL | 1 |
| 182735 | LK 152 SmartSolar CS Plus | 2 |
| 187325 | Bracket for manifold | 3 |
| 095470 | Grundfos UPM3 Solar 25-75 180 | 4 |
| 095471 | Wilo Para ST 25-180/8 IPWM2 | 5 |
| 095473 | Ballvalve, red | 6 |
| 095474 | Ballvalve, blue | 7 |
| 095475 | EPP Insulation | 8 |
| 095477 | Air vent | 9 |
| 095478 | Safety group | 10 |
| 095479 | Filling valve | 11 |

# Solar Pump Unit

## LK 212 SolarStation S

- Reduced energy costs by using solar power
- Adapted for 130 mm circulation pump.
- Connections with 3/4" female thread and 1" male thread

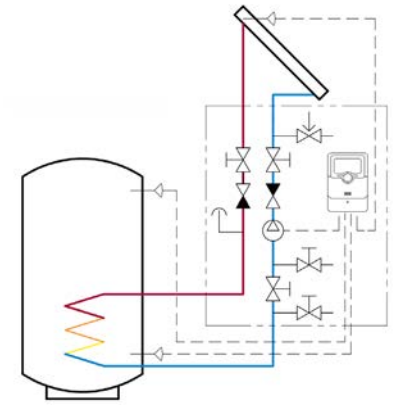
| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC ± 10%, 50 Hz |
| Max. working pressure | 1,0 MPa (10 bar) |
| Operating pressure | 0,6 MPa (6 bar) |
| Working temperature | Supply: Max. 140 °C<br>Return: Max. 110 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Protection type | IP 20 |
| Media | Water - Glycol mixture max. 50% |
| Sensors | PT 1000 |
| Circulating pump | Grundfos UPM3 Solar 25-75 130,<br>Wilo Para ST 25-130/8 IPWM2 |

LK 212 SolarStation S is a compact dual-pipe solar pump unit. It contains all the necessary components for a safe operation and control of the solar heating system such as safety group, 130 mm circulating pump, ball valve with integrated check valve and thermometer, air separator with manual air vent connection, flow meter with shut-off, filling and drainage valves.

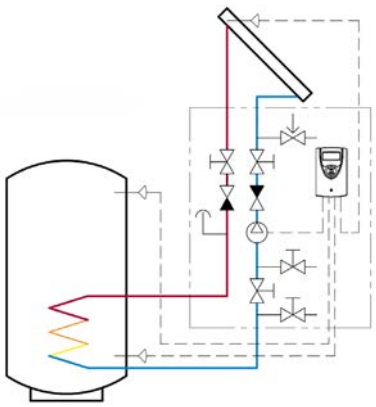
Option of selecting between two different controllers, LK 152 SmartSolar SLL or LK 152 SmartSolar CS Plus. A variant without a controller and/or circulation pump is also optional if you wish to supply it yourself.

LK 152 SmartSolar SLL and SC Plus has both 10 preset hydraulic schedules. The chosen hydraulic schedule and operating status is shown on the display.

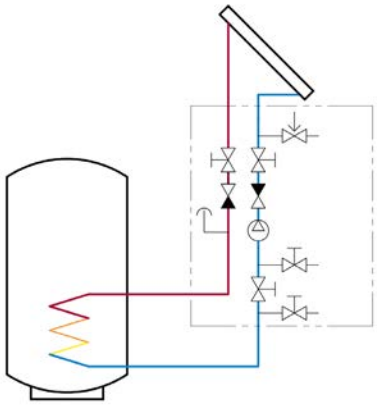
**LK 212 SOLARSTATION S WITH LK 152 SMARTSOLAR SLL**



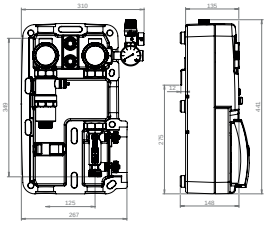
**LK 212 SOLARSTATION S WITH LK 152 SMARTSOLAR CS PLUS**



**LK 212 SOLARSTATION S WITHOUT CONTROLLER**

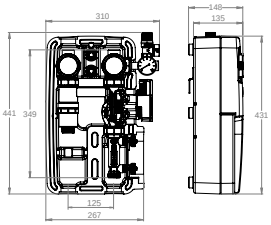


## LK 212 S - Female / male thread - without pump and controller



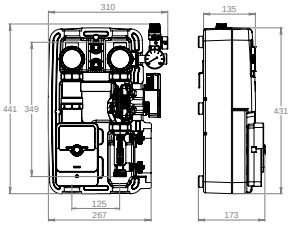
| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396389 | F ¾" / M 1" | 2-12 l/min. | Without pump and controller | 3.5 |

## LK 212 S - Female / male thread - without controller



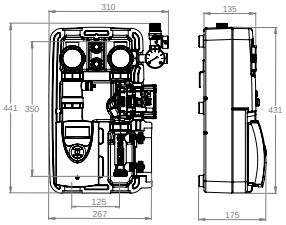
| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396390 | F ¾" / M 1" | 2-12 l/min. | With Grundfos pump, without controller | 5.2 |
| 396391 | F ¾" / M 1" | 2-12 l/min. | With Wilo pump, without controller | 5.2 |

## LK 212 S - Female / male thread - with LK 152 SmartSolar SLL



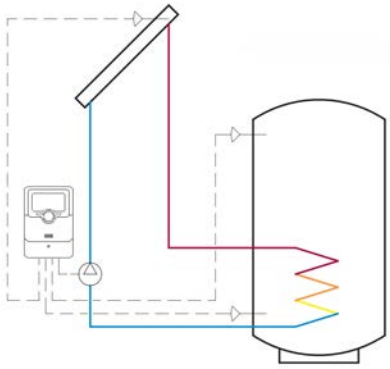
| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396392 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Wilo pump | 5.6 |
| 396393 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Grundfos pump | 5.6 |

## LK 212 S - Female / male thread - with LK 152 SmartSolar CS Plus

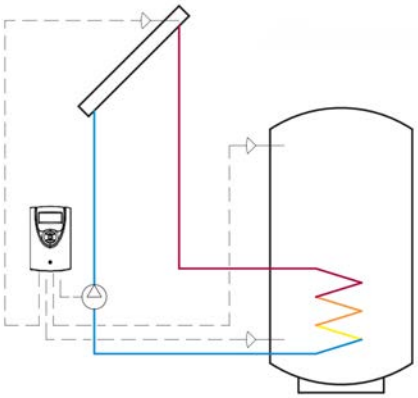


| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396394 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Grundfos pump | 5.6 |
| 396395 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Wilo pump | 5.6 |

## LK 152 SMARTSOLAR SLL



## LK 152 SMARTSOLAR CS PLUS



## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 182675 | LK 152 SmartSolar SLL | 1 |
| 182735 | LK 152 SmartSolar CS Plus | 2 |
| 187325 | Bracket | 3 |
| 095494 | Grundfos UPM3 Solar 25-75 130 | 4 |
| 095495 | Wilo Para ST 25-130/8 IPWM2 | 5 |
| 095473 | Ballvalve, red | 6 |
| 095474 | Ballvalve, blue | 7 |
| 095514 | EPP Insulation | 8 |
| 095477 | Air vent | 9 |
| 095478 | Safety group | 10 |
| 095479 | Filling valve | 11 |

# Solar Pump Unit

## LK 211 SolarStation S

- Reduced energy costs by using solar power
- Adapted for 130 mm circulation pump
- Connections with 3/4" female thread and 1" male thread

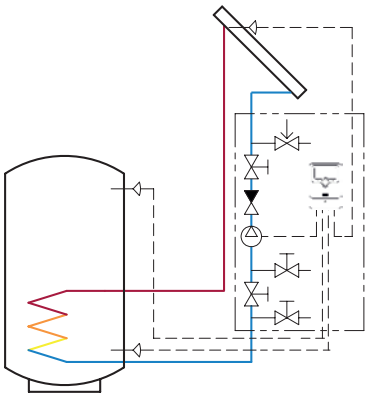
| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC ± 10%, 50 Hz |
| Max. working pressure | 1,0 MPa (10 bar) |
| Operating pressure | 0,6 MPa (6 bar) |
| Working temperature | Max. 110 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Protection type | IP 20 |
| Media | Water - Glycol mixture max. 50% |
| Sensors | PT 1000 |
| Circulating pump | Grundfos UPM3 Solar 25-75 130,<br>Wilo Para ST 25-130/8 IPWM2 |

LK 211 SolarStation S is a compact single-pipe solar pump unit. It contains all the necessary components for a safe operation and control of the solar heating system such as safety group, 130 mm circulating pump, ball valve with integrated check valve and thermometer, flow meter with shut-off, filling and drainage valves.

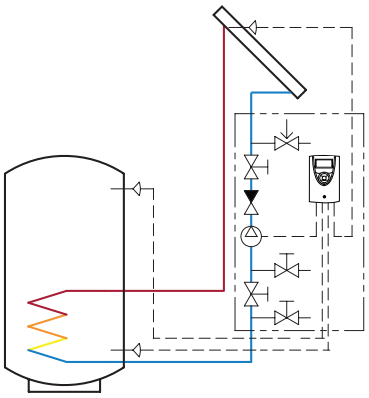
Option of selecting between two different controllers, LK 152 SmartSolar SLL or LK 152 SmartSolar CS Plus. A variant without a controller and/or circulation pump is also optional if you wish to supply it yourself.

LK 152 SmartSolar SLL and SC Plus has both 10 preset hydraulic schedules. The chosen hydraulic schedule and operating status is shown on the display.

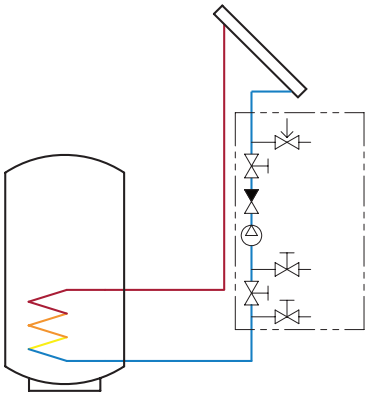
**LK 211 SOLARSTATION S WITH LK 152 SMARTSOLAR SLL**



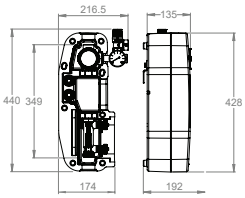
**LK 211 SOLARSTATION S WITH LK 152 SMARTSOLAR CS PLUS**



**LK 211 SOLARSTATION S WITHOUT CONTROLLER**

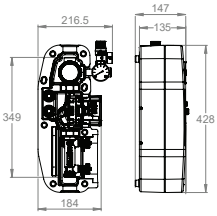


## LK 211 S - Female / male thread - without pump and controller



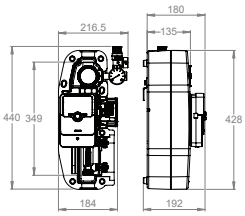

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396198 | F ¾" / M 1" | 2-12 l/min. | Without pump and controller | 1.8 |

## LK 211 S - Female / male thread - without controller



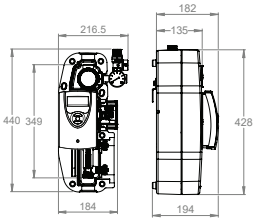

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396192 | F ¾" / M 1" | 2-12 l/min. | With Wilo pump, without controller | 3.6 |
| 396195 | F ¾" / M 1" | 2-12 l/min. | With Grundfos pump, without controller | 3.6 |

## LK 211 S - Female / male thread - with LK 152 SmartSolar SLL



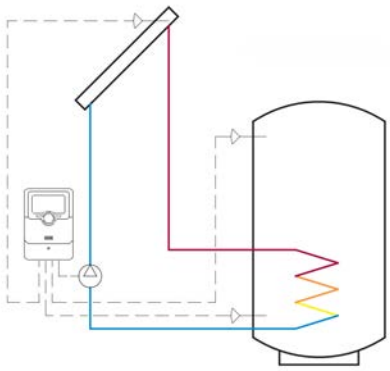

| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396193 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Wilo pump | 4.0 |
| 396196 | F ¾" / M 1" | 2-12 l/min. | With LK 152 SmartSolar SLL, Grundfos pump | 4.0 |

## LK 211 S - Female / male thread - with LK 152 SmartSolar CS Plus

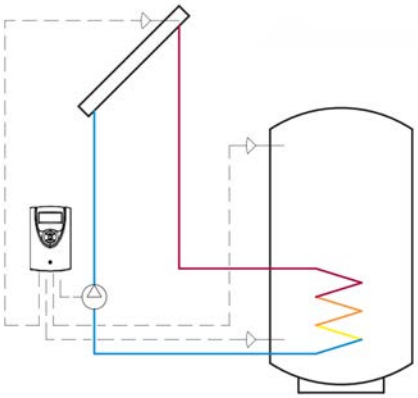



| Article no. | Dim. | Flow range | Note | Weight kg |
|---|---|---|---|---|
| 396194 | F ¾" x M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Wilo pump | 4.0 |
| 396197 | F ¾" x M 1" | 2-12 l/min. | With LK 152 SmartSolar CS Plus, Grundfos pump | 4.0 |

## LK 152 SMARTSOLAR SLL



## LK 152 SMARTSOLAR CS PLUS



## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 182675 | LK 152 SmartSolar SLL | 1 |
| 182735 | LK 152 SmartSolar CS Plus | 2 |
| 187961 | Bracket | 3 |
| 095494 | Grundfos UPM3 Solar 25-75 130 | 4 |
| 095495 | Wilo Para ST 25-130/8 IPWM2 | 5 |
| 095474 | Ballvalve, blue | 6 |
| 095496 | EPP Insulation | 7 |
| 095478 | Safety group | 8 |
| 095479 | Filling valve | 9 |

# Thermic Loading Valve

## LK 820 ThermoVar®

- Position-independent


| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa (0,5 bar) |
| Working temperature | (45 - 55 °C) Min. 5 °C/Max. 95 °C<br>(61 - 80 °C) Min. 5 °C/Max. 110 °C |
| Opening temperature | 45 °C, 55 °C, 61 °C, 66 °C, 72 °C or 80 °C |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12165 CW617N<br>M 2" - Coated Aluminium |
| Material sealing | EPDM |

LK 820 ThermoVar® is a 3-way thermic loading valve for solid fuel/storage tank installations. The valve is intended to ensure both an optimal temperature stratification in the storage tank and a high return temperature to the boiler, thus incresasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

LK 820 can be equipped with an insulation - see under Accessories. For more information, please see the product sheet for insulations.

The valve can be mounted at any angle. LK 820 ThermoVar® can easily be adapted for right- or left-hand mounting. The valve can be installed in three different positions. In the standard version the valve is intended for installation in position II. It can easily be adapted for installation in position I. For delivery of valves intended for installation in position III, please contact our Sales Department.

**POSITION I**

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows hot water to load to the storage tank. Return water from the storage tank is mixed with supply water before it circulates back into the boiler. The loading temperature is at least the selected opening temperature.
A balancing valve should be installed in the circuit between boiler and loading valve.
The installation should be equipped with an LK 822 ThermoBac check valve to prevent self-circulation from storage tank to boiler after the fire has gone out. In case of power failure or pump breakdown the check valve automatically opens for self-circulation.
The circulating pump should be controlled by a thermostat that measures the boiler's water or flue gas temperature.

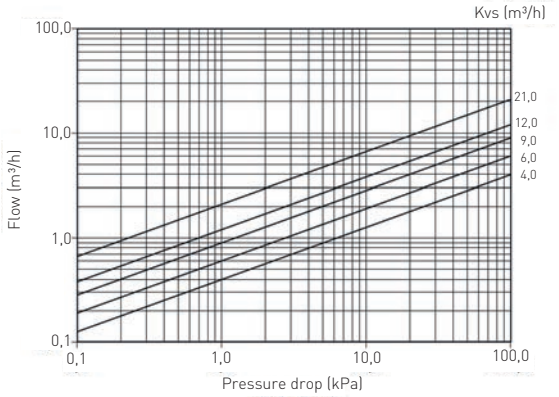
**POSITION II**

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows return water from the storage tank to mix with supply water before it circulates back into the boiler. The return temperature is at least the selected opening temperature.
A balancing valve should be installed in the circuit between boiler and loading valve.
The circulating pump should be controlled by a thermostat that measures the boiler's water or flue gas temperature.

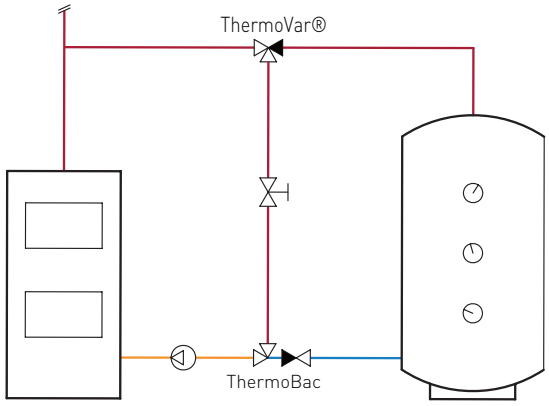
**POSITION III**

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows return water from the storage tank to mix with supply water before it circulates back into the boiler. The return temperature is at least the selected opening temperature.
A balancing valve should be installed in the circuit between boiler and loading valve.
The installation should be equipped with an LK 822 ThermoBac check valve to prevent self-circulation from storage tank to boiler after the fire has gone out. In case of power failure or pump breakdown the check valve opens automatically for self-circulation.
The circulating pump should be controlled by a thermostat that measures the boiler's water or flue gas temperature.

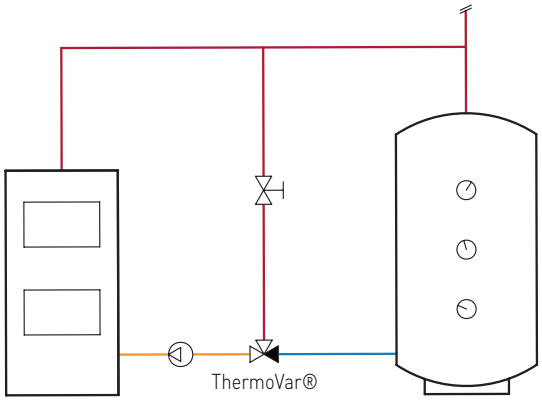
**CAPACITY DIAGRAM**



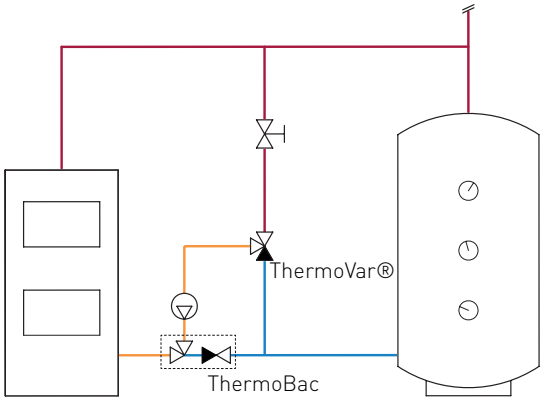

**POSITION I**



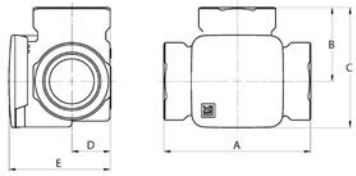

**POSITION II**




**POSITION III**



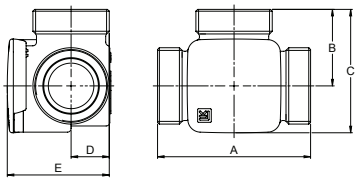

## LK 820 - Female thread


| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180493 | 45 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.7 |
| 180500 | 55 °C | F ¾" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180501 | 55 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.7 |
| 180502 | 55 °C | F 1¼" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |
| 180508 | 61 °C | F ¾" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180509 | 61 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.7 |
| 180510 | 61 °C | F 1¼" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |
| 180517 | 66 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.7 |
| 180525 | 72 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.7 |
| 180526 | 72 °C | F 1¼" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |
| 180534 | 80 °C | F 1¼" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |

Other temperatures and dimensions on request.

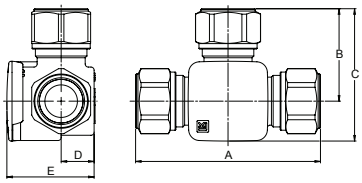
## LK 820 - Male thread


| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180503 | 55 °C | M ¾" | 4.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180504 | 55 °C | M 1" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180505 | 55 °C | M 1¼" | 9.0 | 84 | 42 | 68 | 21 | 35 | 0.7 |
| 180506 | 55 °C | M 1½" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |
| 180512 | 61 °C | M 1" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180513 | 61 °C | M 1¼" | 9.0 | 84 | 42 | 68 | 21 | 35 | 0.7 |
| 180514 | 61 °C | M 1½" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |
| 180520 | 66 °C | M 1" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180528 | 72 °C | M 1" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.7 |
| 180530 | 72 °C | M 1½" | 12.0 | 84 | 42 | 68 | 24 | 39 | 0.8 |

Other temperatures and dimensions on request.

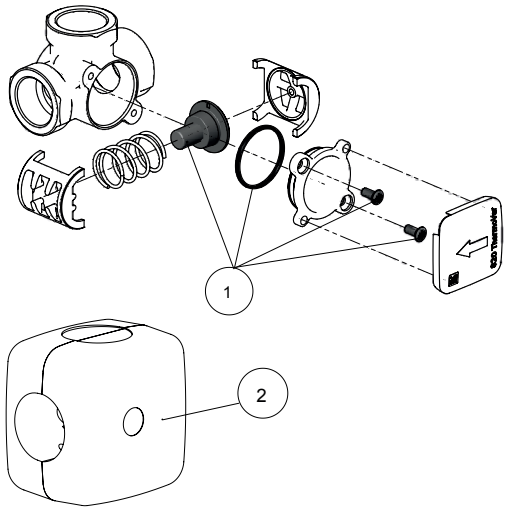
## LK 820 - Compression fitting


| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181125 | 61 °C | 22 mm | 6.0 | 114 | 57 | 83 | 21 | 35 | 0.8 |

Other temperatures and dimensions on request.

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187025 | Thermostatic element 820, 45 °C | 1 |
| 187026 | Thermostatic element 820, 55 °C | 1 |
| 187027 | Thermostatic element 820, 61 °C | 1 |
| 187028 | Thermostatic element 820, 66 °C | 1 |
| 187029 | Thermostatic element 820, 72 °C | 1 |
| 187030 | Thermostatic element 820, 80 °C | 1 |
| 187107 | Insulation, DN 15-20 | 2 |
| 187108 | Insulation, DN 25-32 | 2 |

# Thermic Zone Valve

## LK 821 ThermoVar®

- Position-independent

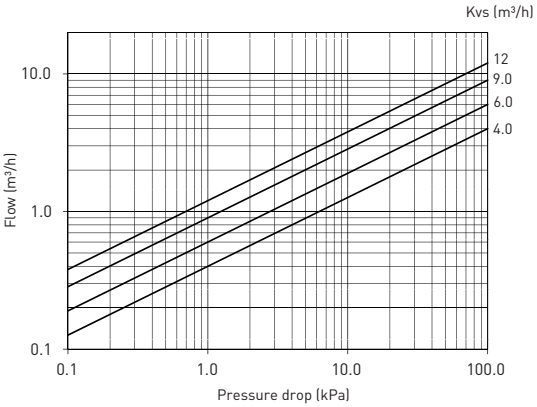

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa (0.5 bar) |
| Working temperature | (45 - 55 °C) Min. 5 °C/Max. 95 °C<br>(61 - 80 °C) Min. 5 °C/Max. 110 °C |
| Opening temperature | 45 °C, 55 °C, 61 °C, 66 °C, 72 °C or 80 °C |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12165 CW617N |
| Material sealing | EPDM |

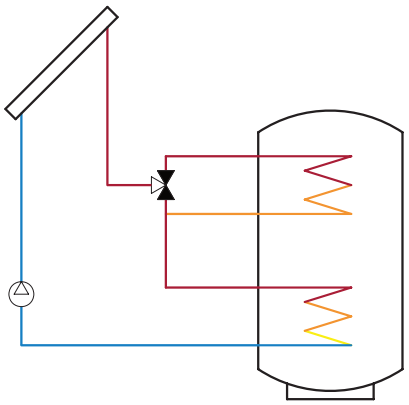
LK 821 ThermoVar® 3-way thermic zone valve is designed to change the direction of flow of the media in heating systems. The valve is controlled by the temperature of the media. With an LK 821 ThermoVar® installed in, for example, a solar heating system an optimal stratification in the storage tank is obtained.

LK 821 can be equipped with an insulation - see under Accessories. For more information, please see the product sheet for insulations.

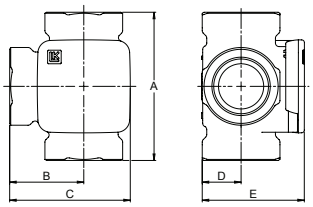
The valve can be mounted at any angle. LK 821 ThermoVar® can easily be adapted for right- or left-hand mounting.

### CAPACITY DIAGRAM



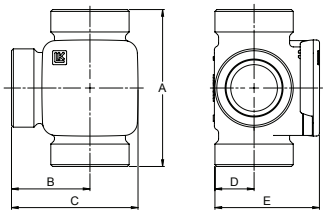
## LK 821 - Female thread


| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180540 | 45 °C | F ¾" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.8 |
| 180541 | 45 °C | F1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.9 |
| 180549 | 55 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.9 |
| 180573 | 72 °C | F 1" | 9.0 | 82 | 41 | 67 | 21 | 35 | 0.9 |

Other temperatures and dimensions on request.

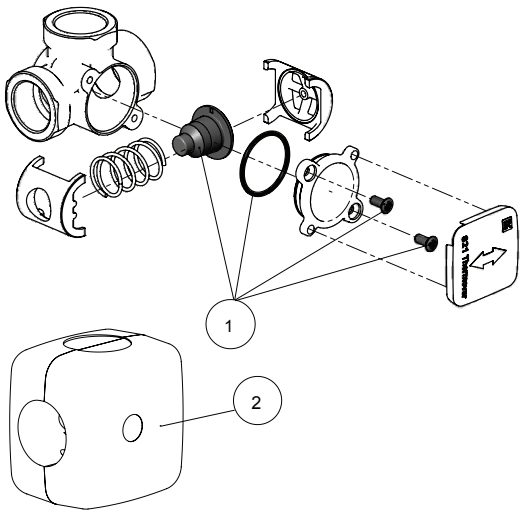
## LK 821 - Male thread


| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180544 | 45 °C | M 1" | 6.0 | 80 | 40 | 66 | 21 | 35 | 0.8 |
| 180578 | 72 °C | M 1½" | 12.0 | 84 | 42 | 68 | 24 | 39 | 1.0 |

Other temperatures and dimensions on request.

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187031 | Thermostatic element 821, 45 °C | 1 |
| 187032 | Thermostatic element 821, 55 °C | 1 |
| 187033 | Thermostatic element 821, 61 °C | 1 |
| 187034 | Thermostatic element 821, 66 °C | 1 |
| 187035 | Thermostatic element 821, 72 °C | 1 |
| 187036 | Thermostatic element 821, 80 °C | 1 |
| 187107 | Insulation, DN 15-20 | 2 |
| 187108 | Insulation, DN 25-32 | 2 |

# Thermic Loading Valve

## LK 823 ThermoVar®

- Increases the efficiency of the system
- Prevents condensation and taring
- Ensures an optimal temperature stratification in the storage tank


| TECHNICAL DATA | |
|---|---|
| Leakage | < 0.5% of Kvs at 100 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | (45 - 55 °C) Min. 5 °C/Max. 95 °C<br>(60 - 70 °C) Min. 5 °C/Max. 110 °C |
| Opening temperature | 45 °C, 50 °C, 55 °C, 60 °C, 65 °C or 70 °C |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 1982 CB753S |
| Material internal cover | Brass EN 12165 CW617N |
| Material sealing | EPDM |

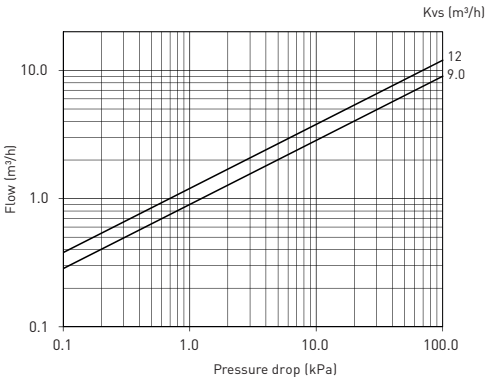
LK 823 ThermoVar® is a 3-way thermic loading valve for solid fuel/storage tank installations. The valve is intended to ensure both an optimal temperature stratification in the storage tank and a high return temperature to the boiler, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

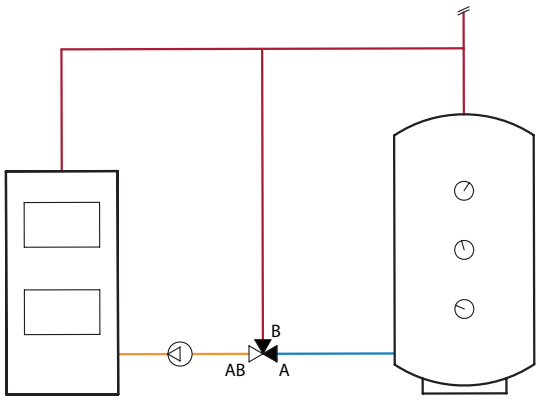
The valve regulates on two ports, which means that there is no need for a balancing valve in the cirucit between boiler and loading valve. The thermostatic element starts to open port A when the outgoing mixed water temperature in port AB reaches the opening temperature. Port B is closed when the temperature in port A exceeds the nominal opening temperature by 10 °C.

LK 823 can be equipped with an insulation - see under Accessories. For more information, please see the product sheet for insulations.

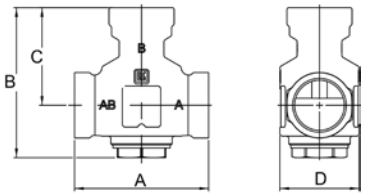
The valve can be mounted at any angle. LK 823 ThermoVar® is for right- or left-hand mounting.

### CAPACITY DIAGRAM



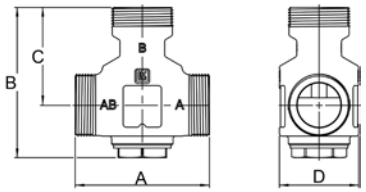
## LK 823 - Female thread




| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 181284 | 45 °C | F 1" | 9.0 | 92 | 114 | 72.5 | Ø 55 | 1.0 |
| 181288 | 45 °C | F 1¼" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |
| 181285 | 50 °C | F 1" | 9.0 | 92 | 114 | 72.5 | Ø 55 | 1.0 |
| 181286 | 55 °C | F 1" | 9.0 | 92 | 114 | 72.5 | Ø 55 | 1.0 |
| 181290 | 55 °C | F 1¼" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |
| 181287 | 60 °C | F 1" | 9.0 | 92 | 114 | 72.5 | Ø 55 | 1.0 |
| 181291 | 60 °C | F 1¼" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |

Other temperatures and dimensions on request.

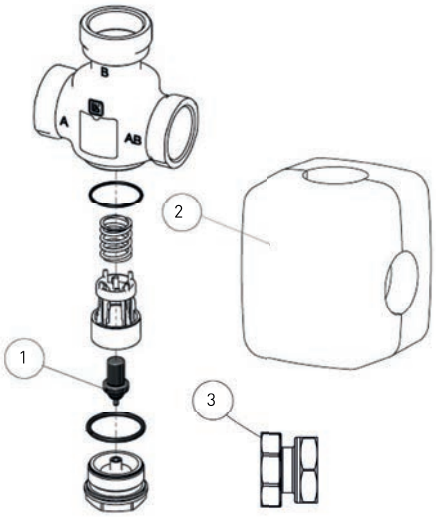
## LK 823 - Male thread




| Article no. | Opening temp. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182163 | 45 °C | M 1" | 9.0 | 84 | 103.5 | 62 | Ø 55 | 1.0 |
| 181300 | 45 °C | M 1½" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |
| 182130 | 45 °C | M 1¼" | 9.0 | 92 | 110.5 | 69 | Ø 62 | 1.2 |
| 182164 | 50 °C | M 1" | 9.0 | 84 | 103.5 | 62 | Ø 55 | 1.0 |
| 182131 | 50 °C | M 1¼" | 9.0 | 92 | 110.5 | 69 | Ø 62 | 1.2 |
| 181302 | 55 °C | M 1½" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |
| 182132 | 55 °C | M 1¼" | 9.0 | 92 | 110.5 | 69 | Ø 62 | 1.2 |
| 181303 | 60 °C | M 1½" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |
| 181538 | 65 °C | M 1½" | 12.0 | 105 | 117 | 76 | Ø 62 | 1.2 |

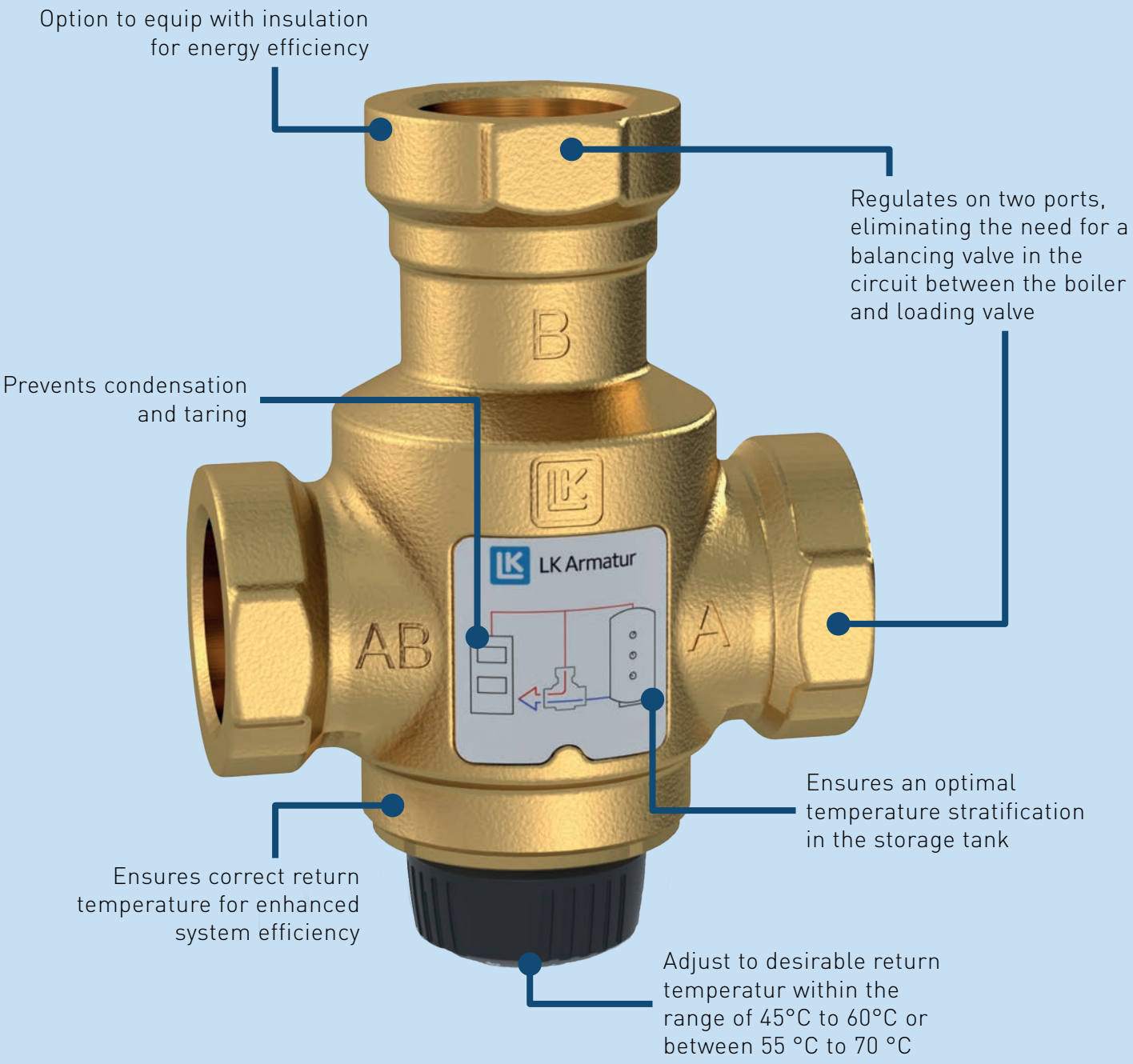
Other temperatures and dimensions on request.

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187102 | Thermostatic element 823, 45 °C | 1 |
| 187103 | Thermostatic element 823, 50 °C | 1 |
| 187104 | Thermostatic element 823, 55 °C | 1 |
| 187105 | Thermostatic element 823, 60°C | 1 |
| 187138 | Thermostatic element 823, 65 °C | 1 |
| 187139 | Thermostatic element 823, 70 °C | 1 |
| 187109 | Insulation, DN 25-32 | 2 |
| 095351 | LK 823 Pump connection 1¼" | 3 |
| 095352 | LK 823 Pump connection 1" | 3 |

# LK 823 ThermoVar® R




Improve your heating system with **LK 823 ThermoVar® R**, a 3-way thermic loading valve. It ensures optimal temperature distribution in your storage tank, enhances boiler efficiency, and prevents tarring and condensation. With the possibility to adjust the return tempearature within the range of 45 °C to 60 °C or between 55 °C to 70 °C, it's the perfect valve for your system.

# Thermic Loading Valve

## LK 823 ThermoVar® R

- Increases system efficiency
- Prevents condensation and tarring
- Adjustable temperature


| TECHNICAL DATA | |
|---|---|
| Leakage | < 0.5% of Kvs at 100 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min 5 °C/Max 95 °C |
| Opening temperature | 55-70 °C / 45-60 °C |
| Ambient temperature | Min 5 °C/Max 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 1982 CB753S |
| Material external cover | Brass EN 12165 CW617N |
| Material sealing | EPDM |

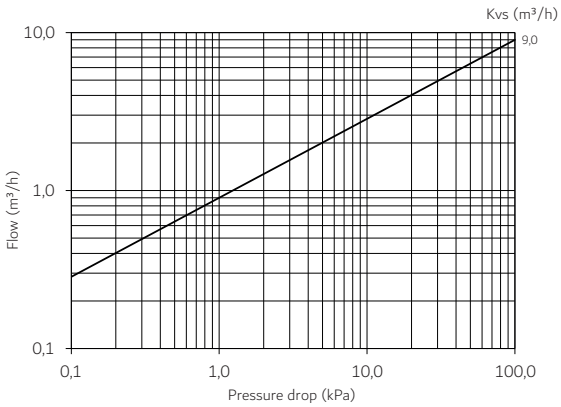
LK 823 ThermoVar® R is a 3-way thermic loading valve for solid fuel/storage tank installations. The valve is intended to ensure both an optimal temperature stratification in the storage tank and a high return temperature to the boiler, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

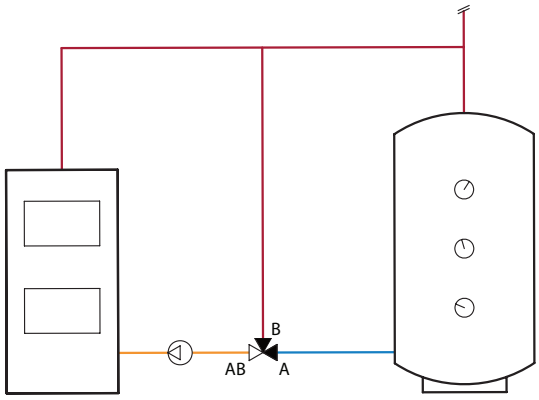
The valve regulates on two ports, which means that there is no need for a balancing valve in the cirucit between boiler and loading valve. The thermostatic element starts to open port A when the outgoing mixed water temperature in port AB reaches the opening temperature. Port B is closed when the temperature in port A exceeds the nominal opening temperature by 10 °C. The valve is adjustable within the range of 55 °C to 70 °C.

LK 823 R can be equipped with an insulation - see under Accessories. For more information, please see the product sheet for insulations.

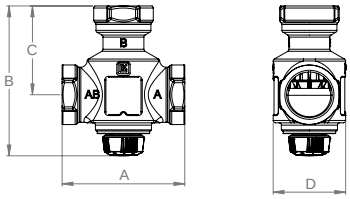
The valve can be mounted at any angle. LK 823 ThermoVar® R is for right- or left-hand mounting.

**CAPACITY DIAGRAM**



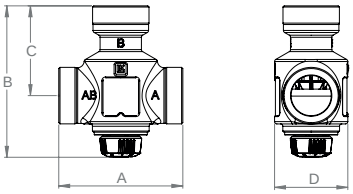



## LK 823 R - Female thread



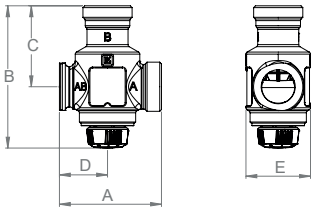

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182386 | F 1¼" | 9.0 | 105 | 128 | 76 | Ø 62 | 55-70 °C | 1.2 |
| 182445 | F 1¼" | 9.0 | 105 | 128 | 76 | Ø 62 | 45 - 60 °C | 1.2 |

## LK 823 R - Male thread



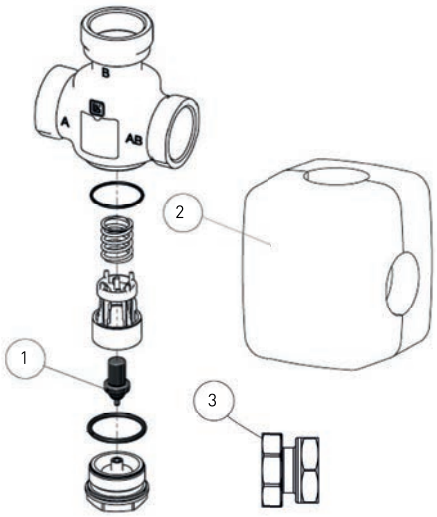

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182388 | M 1½" | 9.0 | 105 | 128 | 76 | Ø 62 | 55 - 70 °C | 1.2 |
| 182446 | M 1½" | 9.0 | 105 | 128 | 76 | Ø 62 | 45-60 °C | 1.2 |

## LK 823 R - Rotating nut




| Article no. | Dim. | Dim. 2 | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 182389 | M 1¼" | 1½" Rotating nut | 9.0 | 87 | 121 | 69 | 41 | 55 | 55 - 70 °C | 0.9 |
| 182447 | M 1¼" | 1½" Rotating nut | 9.0 | 87 | 121 | 69 | 41 | 55 | 45 - 60 °C | 0.9 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187330 | Repair Kit 823R | 1 |
| 187310 | LK Insulation, 551 (Kvs 3.2-4.2) / 552 | 2 |
| 095352 | LK 823 Pump connection 1" | 3 |
| 095351 | LK 823 Pump connection 1¼" | 3 |

# Mixing / Diverting Valve

## LK 525 MultiZone 3R

- Low internal leakage
- The slide is designed to provide accurate regulation at low flows
- Click system for actuator

**TECHNICAL DATA**

| | |
|---|---|
| Voltage | 230 VAC, 50 Hz |
| Power consumption | 5 VA |
| Angle of rotation | 90° |
| Torque | 5 Nm |
| Leakage | < 0.1% of Kvs at 100 kPa |
| Operation time | 110 s |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min. 5 °C/Max. 80 °C<br>(90 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 55 °C |
| Manual override | Yes |
| Thread standard | G - male thread,ISO 228/1 |
| Protection type | IP 44 |
| Protection class | II |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Electrical connection | Fixed wire |
| Signal connector | 3 point SPDT |
| Cable specification | 3 x 0.75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12164 CW614N |
| Material slide/spindle | PPS Composite |
| Type approval certificate | CE (Actuator only) |

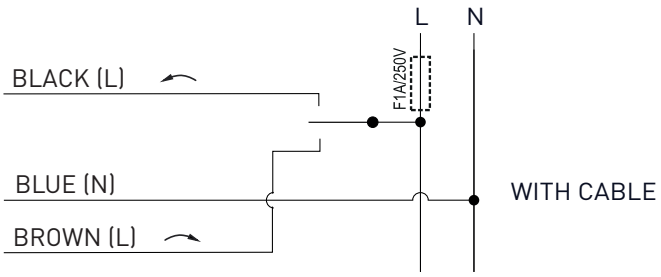
LK 525 MultiZone 3R is a 3-way valve that can be used as a mixing valve or as a diverting valve in heating systems.

The valve is constructed so that the leakage is less than 0.1% of Kvs at 100 kPa. It also has a split linear characteristic which means that the regulation is good even at low flows and capacities.

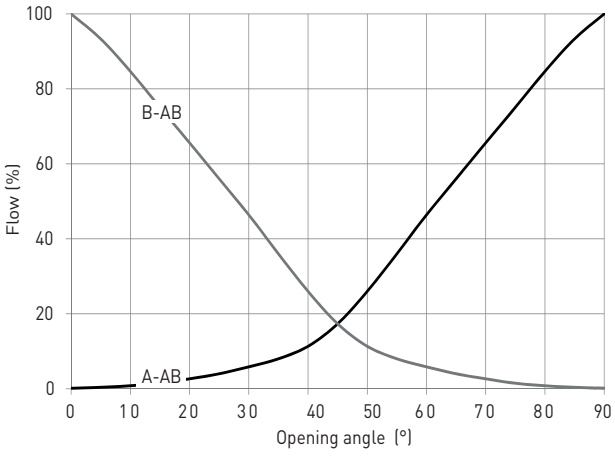
The valve must not be installed with the motor underneath the valve unit. Please note that the motor can be installed in only one position.

The motor operates anti clockwise when the black conductor is powered and clockwise when the brown conductor is powered.

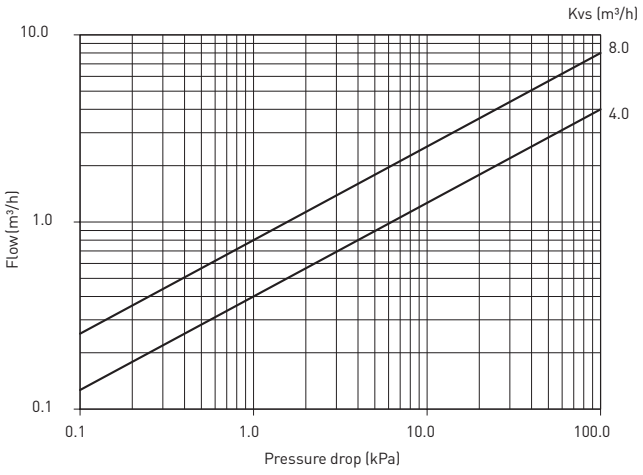
**WIRING DIAGRAM**

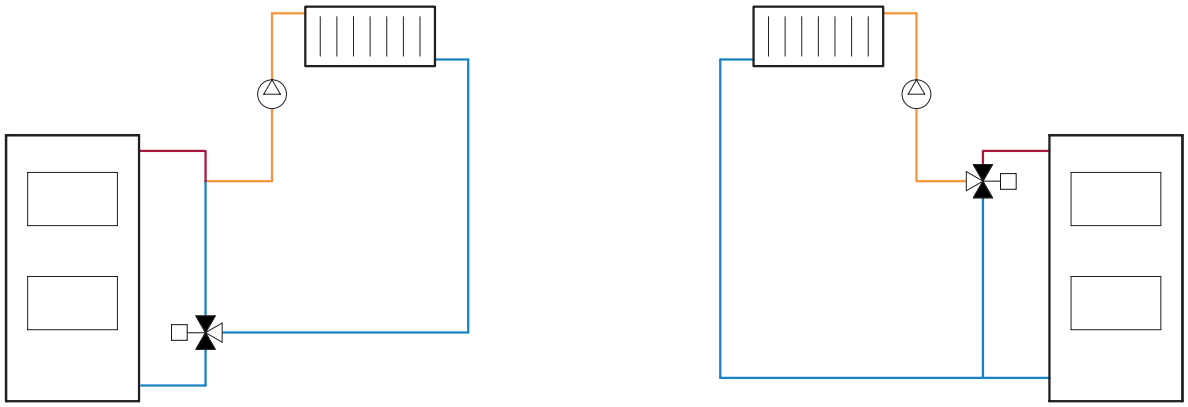



**VALVE CHARACTERISTICS**

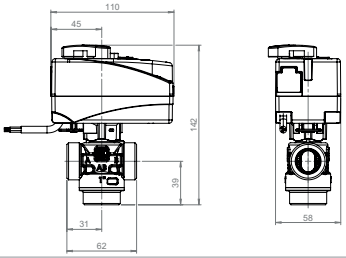



**CAPACITY DIAGRAM**





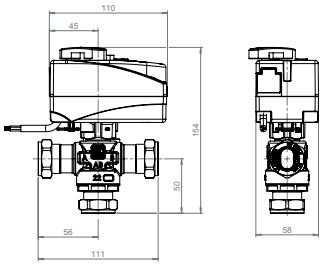
## LK 525 3R - Male thread



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066077 | M 1" | 8.0 | 62 | 31 | 39 | 132 | 46 | 109 | 58 | 0.3 |

Other dimensions and Kvs on request.

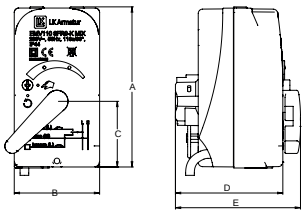
## LK 525 3R - Compression fitting



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066079 | 22 mm | 8.0 | 110 | 55 | 50 | 143 | 46 | 109 | 58 | 0.4 |
| 066080 | 28 mm | 8.0 | 110 | 55 | 54 | 147 | 46 | 109 | 58 | 0.6 |

Other dimensions and Kvs on request.

## LK 940 C



| Article no. | Connection | Voltage | Torque | Operation time | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066127 | 1 m cable | 230 V | 5 Nm | 110 s* | 109 | 58 | 45 | 73 | 85 | 0.4 |
| 066128 | 1 m cable 0-10 VDC | 24 VAC | 5 Nm | 110 s* | 109 | 58 | 45 | 73 | 85 | 0.4 |

*Other operation times on request.

### SPARE PARTS AND ACCESSORIES

| Article no. | Article | Position |
|---|---|---|
| 187202 | Insulation | 1 |

# Bivalent Mixing Valve

## LK 830 ThermoMix® B

- Low internal leakage
- Easy to adapt for right- or left-hand mounting
- Suitable for motorization

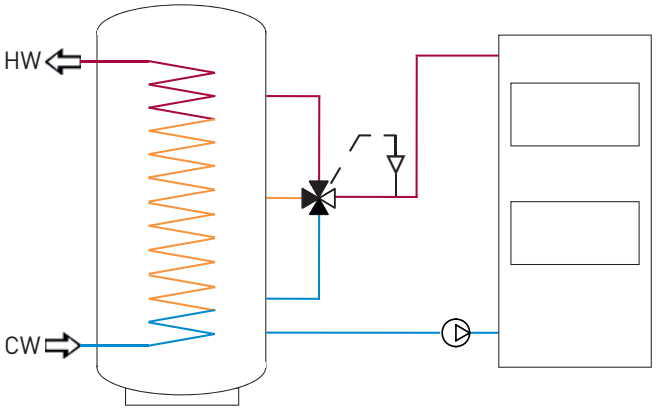
| TECHNICAL DATA | |
|---|---|
| Angle of rotation | 90° |
| Torque | < 1 Nm |
| Leakage | < 0.5% of Kvs at 50 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa ( 0.5 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C<br>(120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12165 CW617N |
| Material slide/spindle | Brass EN 12164 CW614N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

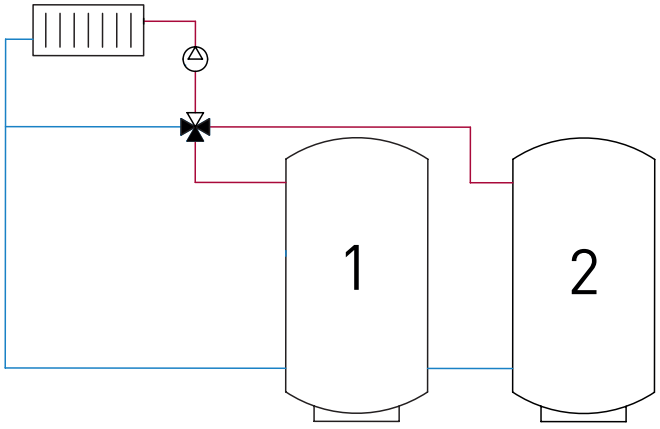
LK 830 ThermoMix® B 4-way bivalent mixing valves are designed for heating systems, where energy is taken from two heating units connected in series or parallel or for storage tank systems where energy is extracted from two levels.

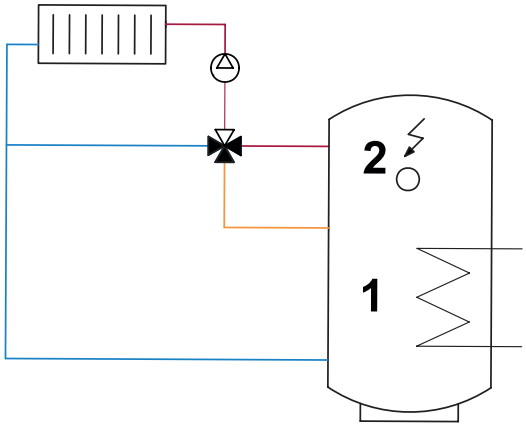
LK 830 ThermoMix® B should be equipped with an automatic control unit to ensure that the most favourable heat source is prioritised at all times.

LK 830 ThermoMix® B can be adapted for right- or left-hand installation.

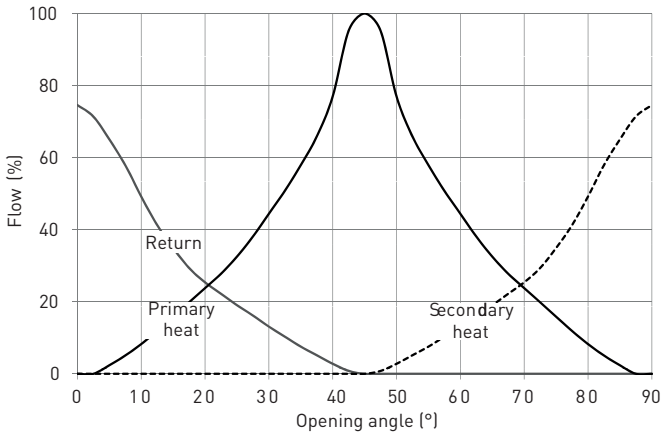
**LK 830 B AS DIVERTING VALVE WITH LK 100 SMARTCOMFORT CT TO OPTIMIZE THE STRATIFICATION IN THE TANK.**



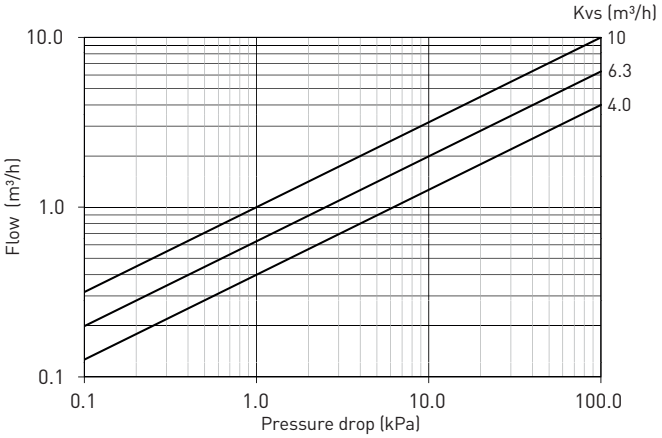



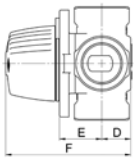
**VALVE CHARACTERISTICS**

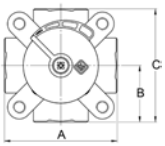



**CAPACITY DIAGRAM**




## LK 830 - Female thread

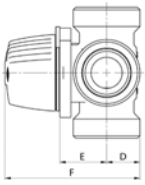


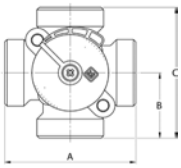




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180587 | F ¾" | 6.3 | 72 | 36 | 72 | 19 | 27 | 80 | 0.7 |

Other dimensions on request.

## LK 830 - Male thread

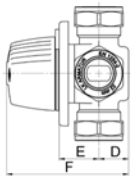


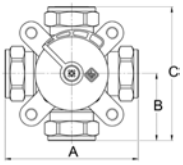




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180004 | M ¾" | 6.3 | 72 | 36 | 72 | 20 | 26 | 80 | 0.6 |
| 180588 | M 1" | 6.3 | 80 | 40 | 80 | 18 | 29 | 81 | 0.7 |

Other dimensions on request.

## LK 830 - Compression fitting

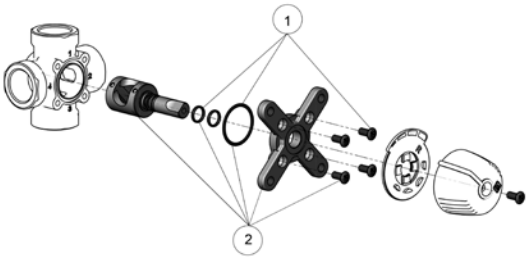



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 180001 | 22 mm | 4.0 | 87 | 43.5 | 87 | 20 | 26 | 80 | 0.7 |
| 180003 | 22 mm | 6.3 | 87 | 43.5 | 87 | 20 | 26 | 80 | 0.7 |
| 180595 | 28 mm | 6.3 | 112 | 56 | 112 | 19 | 27 | 80 | 1.1 |

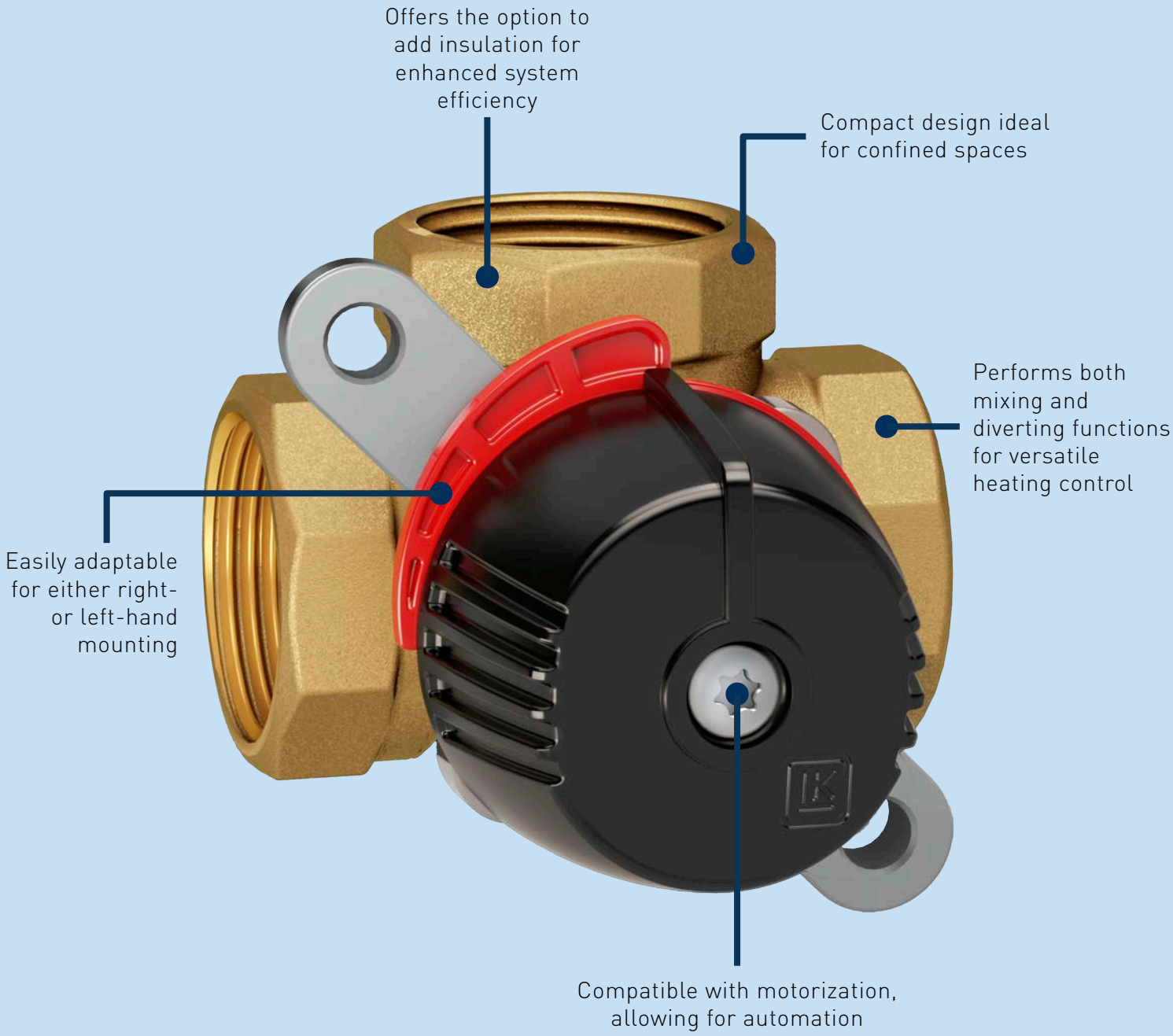
Other dimensions on request.

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187059 | Sealing kit 830/831, DN 15-20 | 1 |
| 187060 | Sealing kit 830, DN 25 | 1 |
| 187187 | Sealing kit LK 840/841 DN 15-20 | 1 |
| 187061 | Repair kit 830, DN 15-20, Kvs 4.0 | 2 |
| 187062 | Repair kit 830, DN 15-20, Kvs 6.3 | 2 |
| 187064 | Repair kit 830, DN 25, Kvs 10.0 | 2 |
| 187958 | Repair kit 830, DN 20, Kvs 6.3 | 2 |

# LK 840 ThermoMix® 2.0




The **LK 840 ThermoMix® 2.0** is a versatile 3-way mixing valve for heating systems. It can serve as a mixing or diverting valve, is compatible with motorization, and can be insulated. With its adaptable and compact design, it can be installed in any position and is easily mounted in tight spaces.

# Mixing Valve

## LK 840 ThermoMix® 2.0

- Low internal leakage
- Suitable for motorization
- Broad product range

PATENTED

REGISTERED DESIGN

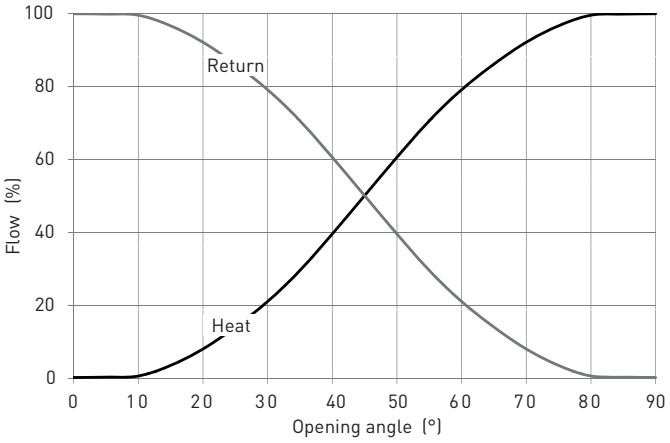
| TECHNICAL DATA | |
|---|---|
| Angle of rotation | 90°/360° |
| Torque | < 1 Nm (DN15-32)*<br>< 2,1-2,3 Nm (DN40-50)* |
| Leakage | < 0,2% of Kvs at 100 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C<br>(120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material internal cover | PPS Composite |
| Material external cover | DN 15-32 Aluminium,<br>DN 40-50 Composite |
| Material slide/spindle | Brass EN 12165 CW617N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

* Double torque if the valve is used diverting.

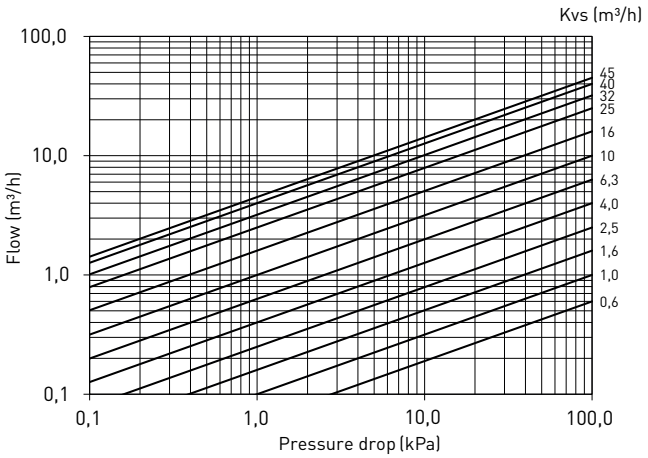
LK 840 ThermoMix® 2.0 is a 3-way mixing valve which can be used as a mixing or diverting valve in heating systems.
The valve is suitable for motorization and can be fitted with insulation. For more information, see the insulation data sheet.

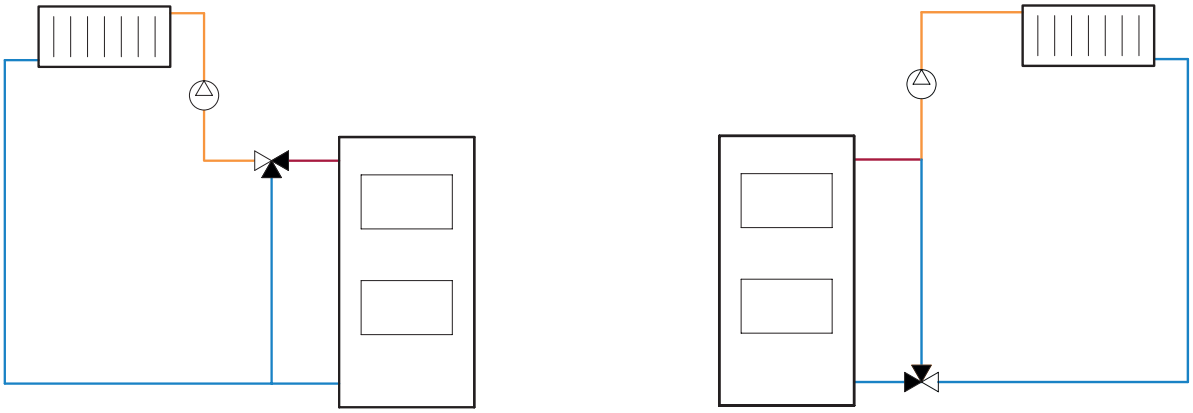
A compact design and a octagonal key grip gives an easier access and installation in tight spaces. The valve can be installed in any position and LK 840 ThermoMix® 2.0 can easily be adapted for right- or left-hand mounting.

### VALVE CHARACTERISTICS

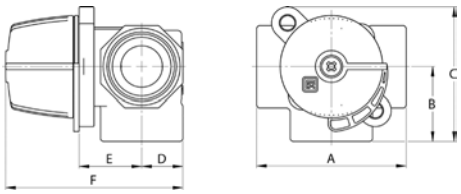



### CAPACITY DIAGRAM



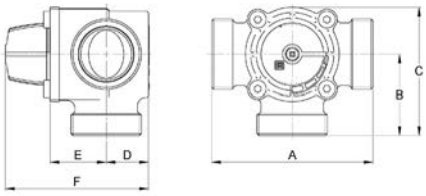


## LK 840 2.0 - Female thread



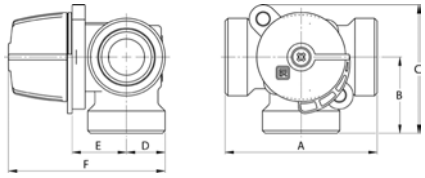

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181908 | F ½" | 0.6 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181909 | F ½" | 1.0 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181910 | F ½" | 1.6 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181911 | F ½" | 2.5 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181912 | F ¾" | 4.0 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181913 | F ¾" | 6.3 | 70 | 35 | 69 | 18 | 29 | 81 | 0.5 |
| 181914 | F 1" | 6.3 | 70 | 35 | 69 | 20 | 29 | 83 | 0.5 |
| 181915 | F 1" | 10.0 | 70 | 35 | 69 | 20 | 29 | 83 | 0.5 |
| 181916 | F 1¼" | 16.0 | 84 | 42 | 77 | 24 | 32 | 90 | 0.8 |

## LK 840 2.0 - Female thread



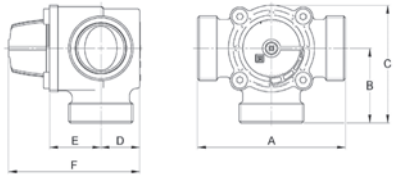

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181917 | F 1½" | 25.0 | 106 | 53 | 88 | 33 | 43 | 110 | 1.4 |
| 181918 | F 2" | 40.0 | 106 | 53 | 88 | 33 | 43 | 110 | 1.6 |

## LK 840 2.0 - Male thread



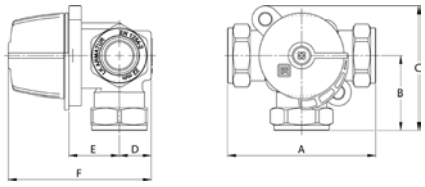

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181919 | M ¾" | 2.5 | 80 | 40 | 74 | 18 | 29 | 81 | 0.6 |
| 181920 | M 1" | 4.0 | 80 | 40 | 74 | 18 | 29 | 81 | 0.6 |
| 181921 | M 1" | 6.3 | 80 | 40 | 74 | 18 | 29 | 81 | 0.6 |
| 181922 | M 1¼" | 10.0 | 82 | 41 | 75 | 20 | 29 | 83 | 0.6 |
| 181923 | M 1½" | 16.0 | 84 | 42 | 77 | 24 | 32 | 90 | 0.8 |

## LK 840 2.0 - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181924 | M 2" | 25.0 | 124 | 62 | 97 | 33 | 43 | 110 | 1.4 |
| 181925 | M 2" | 32.0 | 124 | 62 | 97 | 33 | 43 | 110 | 1.4 |
| 181926 | M 2" | 45.0 | 124 | 62 | 97 | 33 | 43 | 110 | 1.4 |

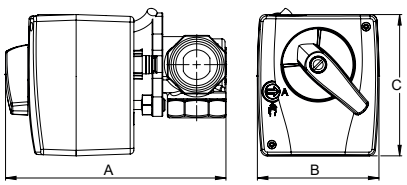
## LK 840 2.0 - Compression Fitting




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181932 | 28 mm | 6.3 | 120 | 60 | 94 | 18 | 29 | 81 | 0.7 |

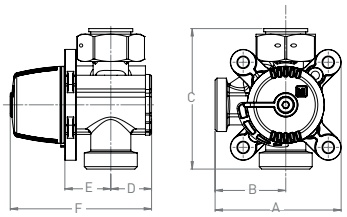
Other dimensions on request.

## LK 840 Set - Female thread - LK 950 / LK 100 SmartComfort CT



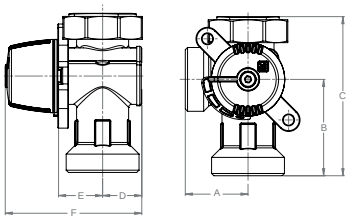

| Article no. | Type | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|
| 182759 | LK 950 (180759) | F ¾" | 6.3 | 143 | 80 | 93 | 1.0 |
| 182760 | LK 950 (180759) | F 1" | 6.3 | 145 | 80 | 93 | 1.0 |
| 182761 | LK 950 (180759) | F 1" | 10.0 | 145 | 80 | 93 | 1.0 |
| 182762 | LK 100 (181242) | F ¾" | 6.3 | 149 | 84 | 97 | 1.0 |
| 182763 | LK 100 (181242) | F 1" | 10.0 | 151 | 84 | 97 | 1.0 |

## LK 850 HG - Male thread / Rotating nut



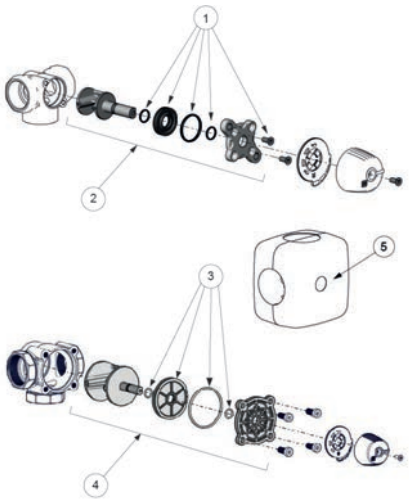

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182765 | M 1" x M 1" x F 1" Rotating nut | 6.3/10.0 | 78.5 | 44 | 88 | 25.4 | 28.6 | 88.1 | 0.65 |

## LK 840 HG - Male thread / Rotating nut




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182766 | M 1½" x M 1¼" x F 1½" Rotating nut | 6.3 | 41 | 63 | 104 | 25.6 | 28.8 | 89 | 0.7 |
| 182767 | M 1½" x M 1¼" x F 1½" Rotating nut | 10.0 | 41 | 63 | 104 | 25.6 | 28.8 | 89 | 0.7 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 187187 | Sealing kit LK 840/841 DN 15-20 | 1 |
| 187188 | Sealing kit LK 840/841 DN 25 | 1 |
| 187197 | Sealing kit 840/841 2.0, DN 32 | 1 |
| 187190 | Repair kit LK 840 DN 15-20 | 2 |
| 187191 | Repair kit 840 DN 25 | 2 |
| 187192 | Repair kit LK 840 DN 32 | 2 |
| 187189 | Sealing kit 840/841 2.0, DN 40-50 | 3 |
| 187193 | Repair kit LK 840 DN 40-50 | 4 |
| 187107 | Insulation, DN 15-20 | 5 |
| 187108 | Insulation, DN 25-32 | 5 |

# Mixing Valve

## LK 841 ThermoMix® 2.0

- Octagonal key grip
- Compact design
- Low internal leakage

PATENTED

REGISTERED DESIGN

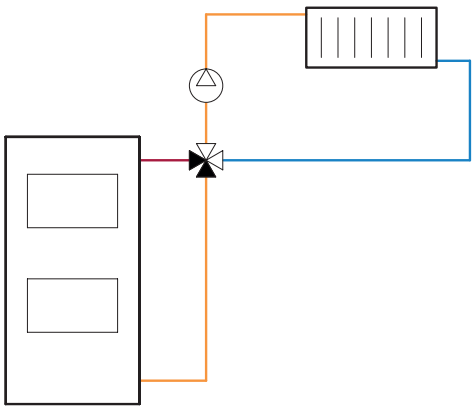
**TECHNICAL DATA**

| | |
|---|---|
| Angle of rotation | 90°/360° |
| Torque | < 1 Nm |
| Leakage | < 1.5% of Kvs at 50 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C (120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | Rp - female thread, G - male thread |
| Media | Water - Glycol mixture max. 50% Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material internal cover | PPS Composite |
| Material external cover | DN 15-32 Aluminium, DN 40-50 Composite |
| Material slide/spindle | Brass EN 12165 CW617N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

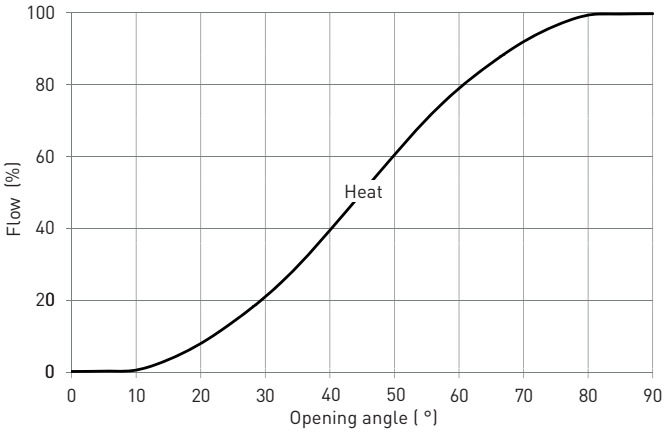
LK 841 ThermoMix® 2.0 is designed for heating systems where a high return temperature is required to prevent corrosion and thus extend the life length of the heat source.

The valve is suitable for motorization and can be fitted with insulation. For more information, see the insulation data sheet.

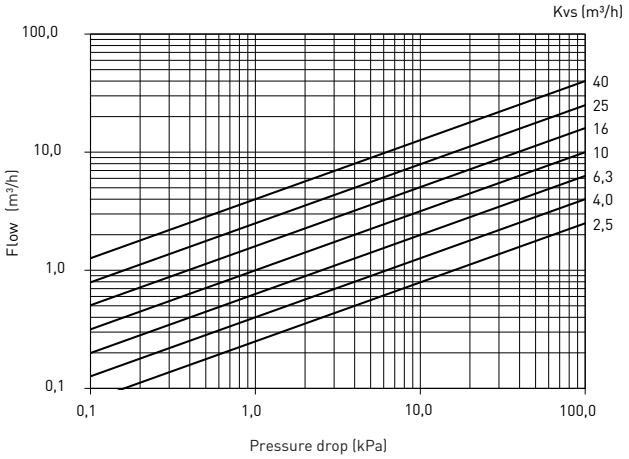
A compact design and a octagonal key grip gives an easier access and installation in tight spaces. The valve can be installed in any position and LK 841 ThermoMix® 2.0 can easily be adapted for right- or left-hand mounting.



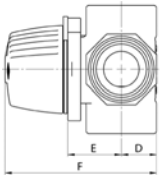
**VALVE CHARACTERISTICS**

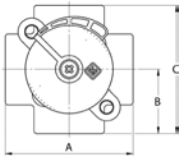



**CAPACITY DIAGRAM**



## LK 841 2.0 - Female thread

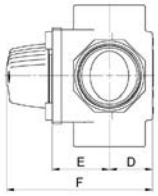


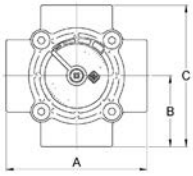




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181940 | F ½" | 2.5 | 70 | 35 | 70 | 18 | 29 | 81 | 0.7 |
| 181941 | F ¾" | 4.0 | 70 | 35 | 70 | 18 | 29 | 81 | 0.5 |
| 181942 | F ¾" | 6.3 | 70 | 35 | 70 | 18 | 29 | 81 | 0.5 |
| 181943 | F 1" | 10.0 | 70 | 35 | 70 | 20 | 29 | 83 | 0.5 |
| 181944 | F 1¼" | 16.0 | 84 | 42 | 84 | 24 | 32 | 90 | 0.8 |

Other dimensions on request.

## LK 841 2.0 - Female thread

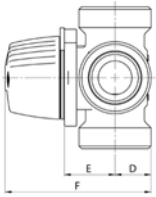


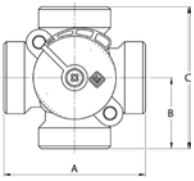




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181945 | F 1½" | 25.0 | 106 | 53 | 106 | 33 | 43 | 110 | 1.6 |
| 181946 | F 2" | 40.0 | 106 | 53 | 106 | 33 | 43 | 110 | 1.7 |

Other dimensions on request.

## LK 841 2.0 - Male thread

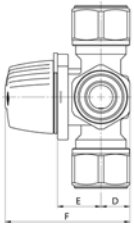


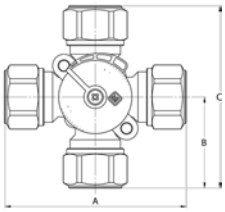




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181949 | M 1" | 6.3 | 80 | 40 | 80 | 18 | 29 | 81 | 0.5 |

Other dimensions on request.

## LK 841 2.0 - Compression Fitting

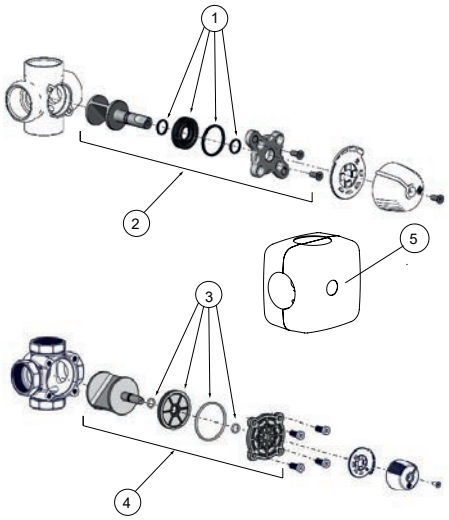



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 181986 | 22 mm | 2.5 | 114 | 57 | 114 | 18 | 29 | 81 | 0.9 |

Other dimensions on request.

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187187 | Sealing kit LK 840/841 DN 15-20 | 1 |
| 187188 | Sealing kit LK 840/841 DN 25 | 1 |
| 187197 | Sealing kit 840/841 2.0, DN 32 | 1 |
| 187194 | Repair kit 841 2.0, DN 15-20 | 2 |
| 187195 | Repair kit 841 2.0, DN 25 | 2 |
| 187198 | Repair kit 841 2.0, DN 32 | 2 |
| 187189 | Sealing kit 840/841 2.0, DN 40-50 | 3 |
| 187196 | Repair kit 841 2.0, DN 40-50 | 4 |
| 187107 | Insulation, DN 15-20 | 5 |
| 187108 | Insulation, DN 25-32 | 5 |

# Mixing Valve

## LK 842 ThermoMix® P

- Flange connection
- Simple motorisation

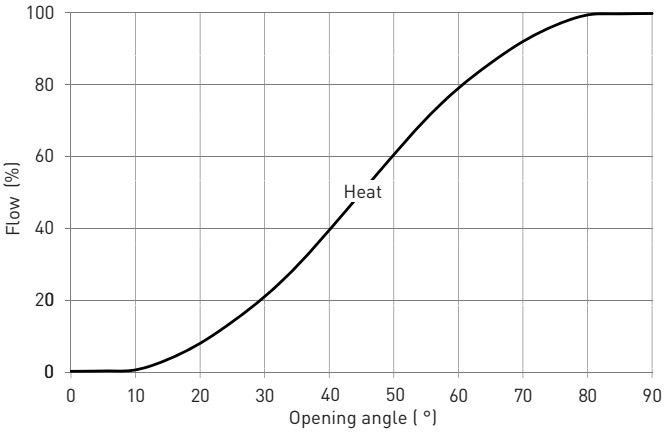
| TECHNICAL DATA | |
|---|---|
| Angle of rotation | 90° |
| Torque | < 1 Nm |
| Leakage | < 1.5% of Kvs at 50 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa (0,5 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C (120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50% Ethanol mixture max. 30% |
| Material valve body | Brass EN 1982 CB753S |
| Material internal cover | PPS Composite |
| Material external cover | Aluminium |
| Material slide/spindle | Brass EN 12165 CW617N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

LK 842 ThermoMix® P is a 4-way mixing valve for mounting on heating boilers.

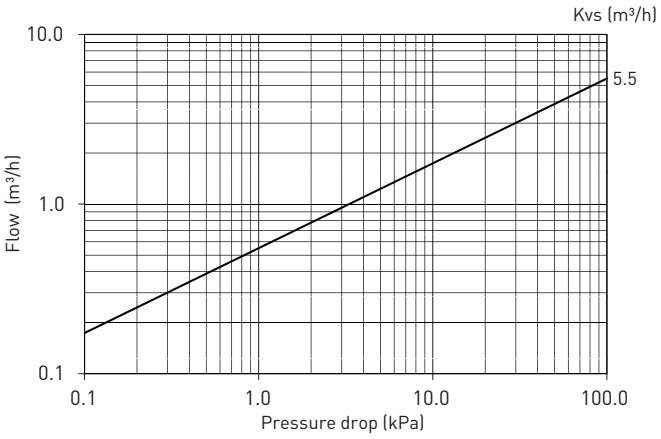
LK 842 ThermoMix® P is suitable for motorization.

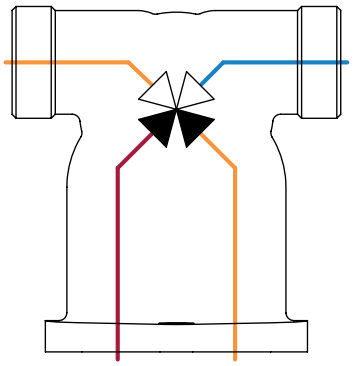
The valve can be mounted at any angle. LK 842 ThermoMix® P can easily be adapted for right- or left-hand mounting.

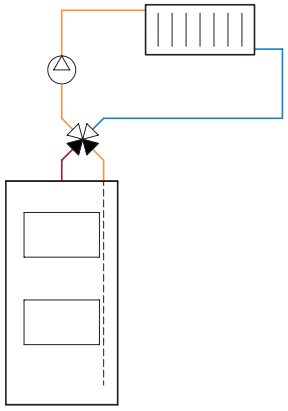
**VALVE CHARACTERISTICS**



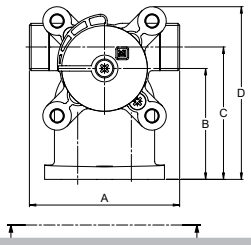

**CAPACITY DIAGRAM**

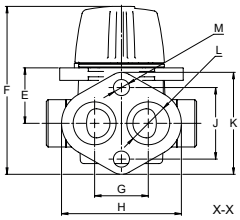






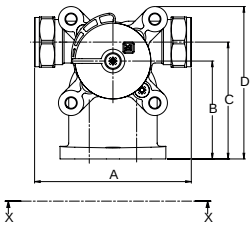
## LK 842 - Male thread

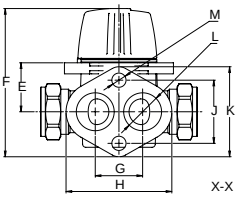



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | J mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 180879 | M ¾" | 5.5 | 84 | 62 | 74 | 97 | 31 | 94 | 30 | 67 | 40 |

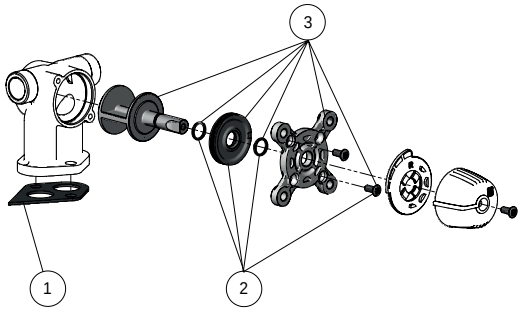
## LK 842 - Compression fitting




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | J mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 180880 | 15 mm | 5.5 | 99 | 62 | 74 | 97 | 31 | 94 | 30 | 67 | 40 |
| 180881 | 22 mm | 5.5 | 99 | 62 | 74 | 97 | 31 | 94 | 30 | 67 | 40 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 013083 | Gasket 842 | 1 |
| 187067 | Sealing kit 840/841/842, DN 25-32 | 2 |
| 187071 | Repair kit 841/842, DN 25-32 | 3 |

# Mixing Valve

## LK 850 ThermoMix® H

- Simple motorisation
- CC 125 mm
- Bypass

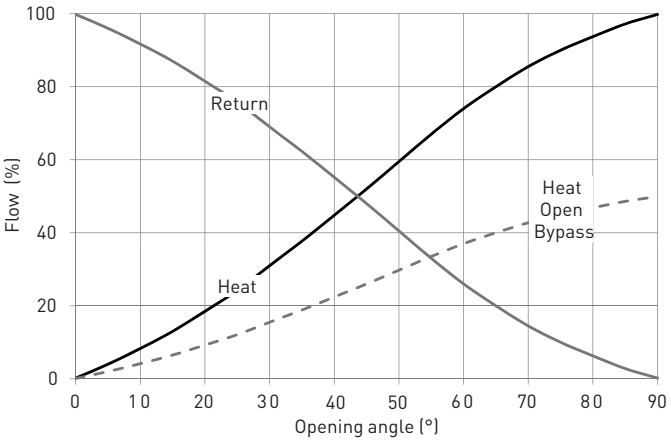
| TECHNICAL DATA | |
|---|---|
| Angle of rotation | 90° |
| Torque | < 3 Nm |
| Leakage | < 1% of Kvs at 50 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa (0.5 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C (120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50% Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12165 CW617N |
| Material slide/spindle | Brass EN 12165 CW617N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

LK 850 ThermoMix® H is a 3-way mixing valve with integrated, adjustable bypass. The bypass can be adjusted up to 50% of the total valve flow.

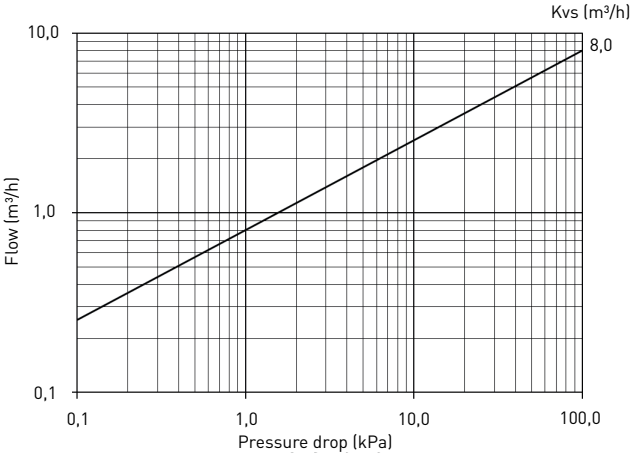
LK 850 ThermoMix® H is suitable for motorization.

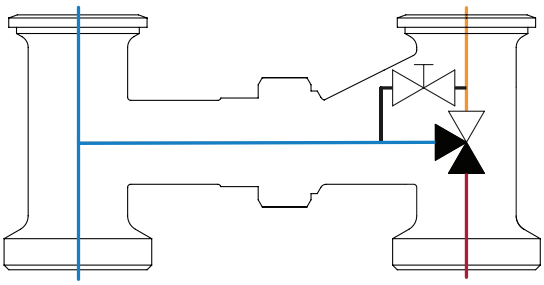
The valve can be mounted at any angle. LK 850 ThermoMix® H can easily be adapted for right- or left-hand mounting.

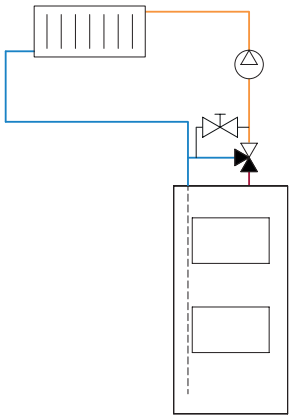
**VALVE CHARACTERISTICS**



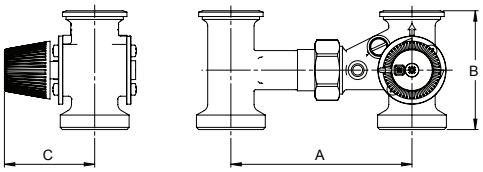

**CAPACITY DIAGRAM**







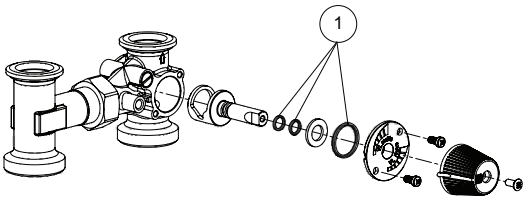
## LK 850 - Male thread / Rotating nut




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 181144 | M 1½" | 8.0 | 125 | 82 | 62 | 1.5 |

Two 1½" rotating nuts and two gaskets of EPDM are included in the delivery.

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187082 | Sealing kit 850 | 1 |

# Mixing Valve

## LK 851 ThermoMix® H

- Simple motorisation
- CC 125 mm

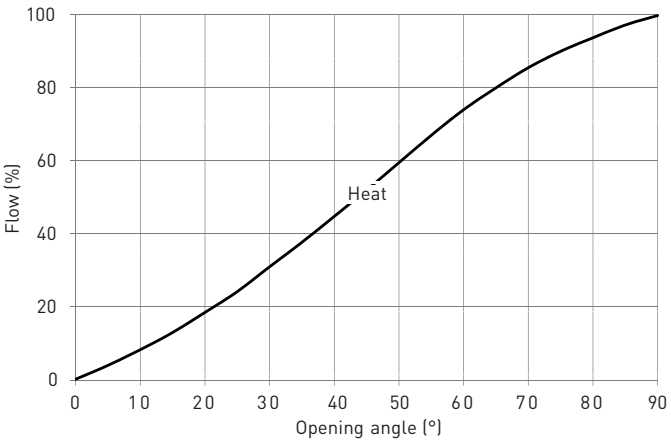
| TECHNICAL DATA | |
|---|---|
| Angle of rotation | 90° |
| Torque | < 3 Nm |
| Leakage | < 1% of Kvs at 50 kPa |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 50 kPa (0.5 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C<br>(120 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 60 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12165 CW617N |
| Material slide/spindle | Brass EN 12165 CW617N |
| Material sealing | EPDM |
| Spindle sealing | Two O-rings |

LK 851 ThermoMix® H is a 4-way mixing valve suited for heating systems in which a high return temperature is needed to avoid corrosion, thus prolonging the life-time of the heat source.

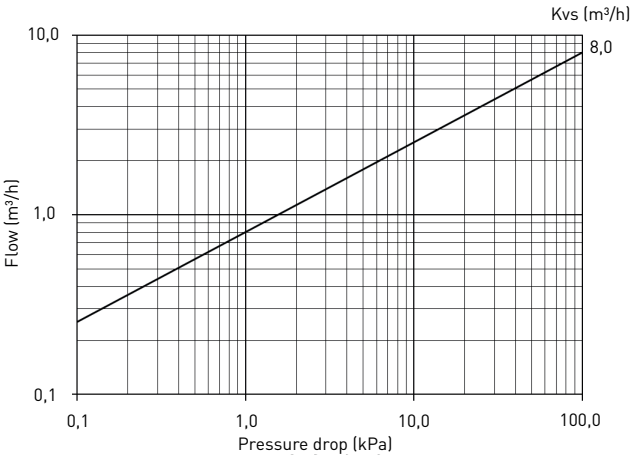
LK 851 ThermoMix® H is suitable for motorization.

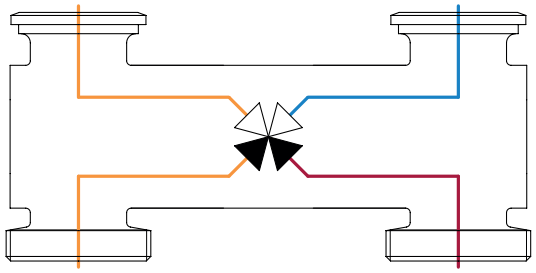
The valve can be mounted at any angle. LK 851 ThermoMix® H can easily be adapted for right- or left-hand mounting.

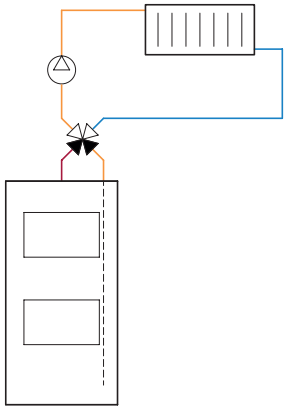
**VALVE CHARACTERISTICS**



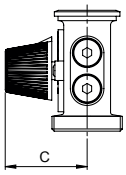

**CAPACITY DIAGRAM**

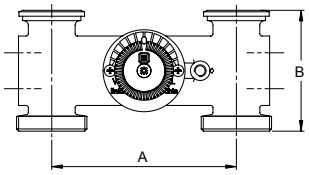






## LK 851 - Male thread / Rotating nut

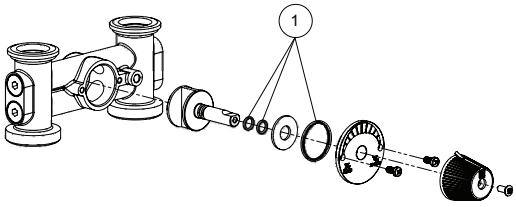



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 181145 | M 1½" | 8.0 | 125 | 82 | 55 | 1.6 |

Two 1½" rotating nuts and two gaskets of EPDM are included in the delivery.

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187083 | Sealing kit 851 | 1 |

# LK 130 SmartComfort


Automatically adapts to mixing valve direction for easy installation

Maintains settings during power outages

Booster function for rapid indoor temperature adjustments

LED display shows current status and selected value

Nine built-in programs for energy optimization

Holiday and timer settings for convenient and energy-saving control

Available in two versions; with fixed cable SmartComfort RT or wireless receiver SmartComfort RTW

See current status of supply temperature, min. temperature, max. temperature, curve setting, and outdoor temperature

Elevate your indoor comfort with **LK 130 SmartComfort**. This intelligent controller offers precise temperature adjustments and integrates easily with existing systems. The included room temperature unit enhances control with preset programs and outdoor temperature monitoring. For top efficiency, connect SmartComfort PC to manage the circulating pump and prevent stalling.

# Temperature Controller

## LK SmartComfort

PATENTED

- Adjustments are easily made with push buttons
- Wired or wireless room controllers available
- The same actuator for LK SmartComfort 110, 120 and 130 enabling easy upgrading

**TECHNICAL DATA**

| | |
|---|---|
| Power consumption | < 3 VA |
| Primary voltage adapter | 100-240 VAC, 50/60 Hz |
| Secondary voltage adapter | 24 VDC |
| Angle of rotation | 90° |
| Torque | 5 Nm |
| Ambient temperature | Actuator:<br>Min. 0 °C/Max. 50 °C (in operation)<br>Room Temperature Unit:<br>Min. 0 °C/Max. 40 °C |
| Min. supply temperature | LK 110/120/130: 5 - 40 °C |
| Max. supply temperature | LK 110/120/130: 20 - 99 °C |
| Control range | LK 100 CT: 5 - 99 °C,<br>LK 110, 120, 130: Min. 5 °C/Max. 35 °C |
| Curve slope | LK 110/130: 1.0 - 9.9 |
| Parallel displacement | LK 110/130: ± 10 °C |
| Protection class | Actuator: IP 40<br>Room Temperature Unit: IP 20 |
| Type approval certificate | CE |

LK SmartComfort is an electronic controller that has an automatic choice of direction to adapt to the direction of the mixing valve. LED-indicators show if the controller is opening or closing the valve. The supply temperature can be limited with a minimum and a maximum value. LED-indicators show if the controller is opening or closing the valve. Adjustments are easily made with the push buttons marked "+" and "- ". The selected value will be shown on the LED-display.

LK SmartComfort is easy to install onto new as well as existing mixing valves. Mounting kits for installation onto mixing valves of other brands are available - see separate page.

The plug-in adapter provides quick and easy do-it-yourself installation. In case of a power outage the controller will keep its settings and the actuator will stop in its current position. By disengaging the controller, the mixing valve can be manually operated.

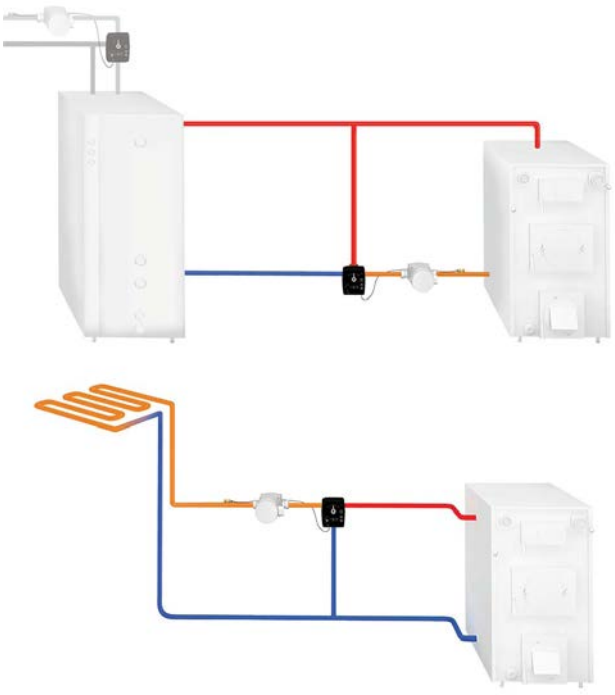
**LK 100 CT - CONSTANT TEMPERATURE CONTROLLER**

LK 100 SmartComfort CT is an electronic temperature controller designed to keep the supply temperature in underfloor heating systems or the return temperature to solid fuel boilers at a constant level. The flow temperature is adjustable between 5 - 99 °C.

**LK 100 CT - ITEMS INCLUDED**

- Temperature controller
- Adapter 24 VDC
- Mounting kit for mixing valve
- Supply temperature sensor with 1 m cable

**LK 100 SMARTCOMFORT CT**



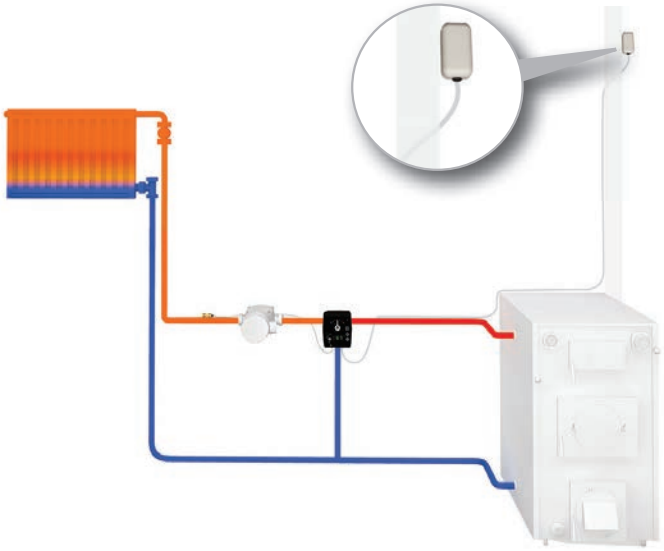
## LK 110 - WEATHER COMPENSATED TEMPERATURE CONTROLLER

LK 110 SmartComfort is an electronic weather compensated temperature controller for hydronic radiator and underfloor heating systems. By measuring the supply and outdoor temperatures LK 110 SmartComfort regulates the mixing valve to provide the system with the exact amount of heat required in the building at any given time. The supply temperature can be limited with a minimum and a maximum value. The current supply and outdoor temperatures can be read on the controller display.

### LK 110 - ITEMS INCLUDED

- Temperature controller
- Adapter 24 VDC
- Mounting kit for mixing valve
- Supply temperature sensor with 1 m cable
- Outdoor temperature sensor with 15 m cable and protective casing

### LK 110 SMARTCOMFORT



## LK 120 - INDOOR TEMPERATURE CONTROLLER

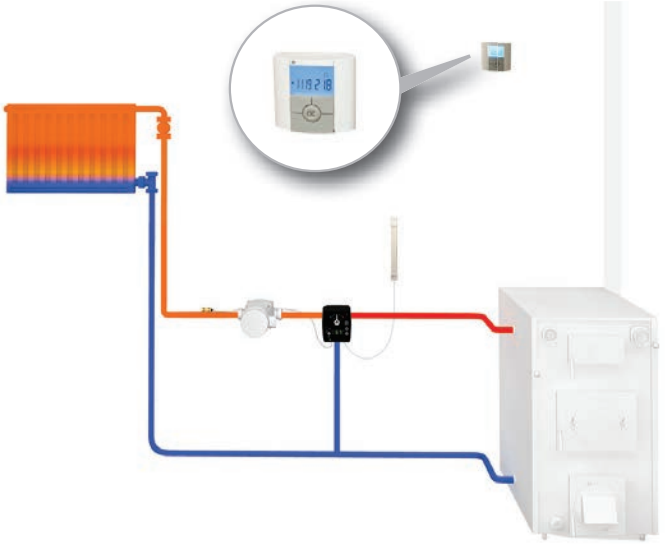
LK 120 SmartComfort is an electronic indoor temperature controller for hydronic radiator and underfloor heating systems. By measuring the supply and indoor temperatures LK 120 SmartComfort regulates the mixing valve to provide the system with the exact amount of heat required in the building at any given time. The supply temperature can be limited with a minimum and a maximum value.

LK 120 SmartComfort is delivered with a room temperature unit allowing easy setting of the desired indoor temperature.

### LK 120 - ITEMS INCLUDED

- Temperature controller
- Adapter 24 VDC
- Mounting kit for mixing valve
- Supply temperature sensor with 1 m cable
- Room temperature unit SmartComfort RT with 15 m cable or
  Room temperature unit SmartComfort RTW with wireless receiver

### LK 120 SMARTCOMFORT



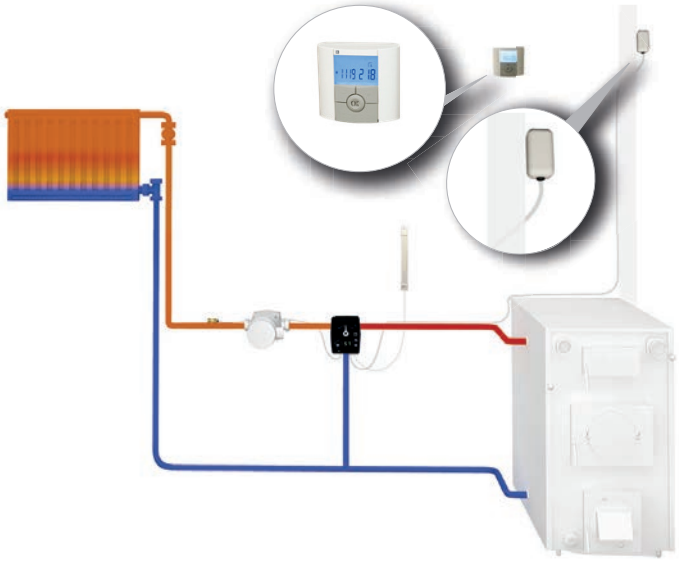
## LK 130 - WEATHER COMPENSATED INDOOR TEMPERATURE CONTROLLER

LK 130 SmartComfort is an electronic, weather compensated,indoor temperature controller for hydronic radiator and underfloor heating systems. By measuring the supply, outdoor and indoor temperatures LK 130 SmartComfort regulates the mixing valve to provide the system with the exact amount of heat required in the building at any given time. The supply temperature can be limited with a minimum and a maximum value.
LK 130 SmartComfort is delivered with a room temperature unit allowing easy setting of the desired indoor temperature.

### LK 130 - ITEMS INCLUDED

- Temperature controller
- Adapter 24 VDC
- Mounting kit for mixing valve
- Supply temperature sensor with 1 m cable
- Outdoor temperature sensor with 15 m cable and protective casing
- Room temperature unit SmartComfort RT with 15 m cable or
  Room temperature unit SmartComfort RTW with wireless receiver

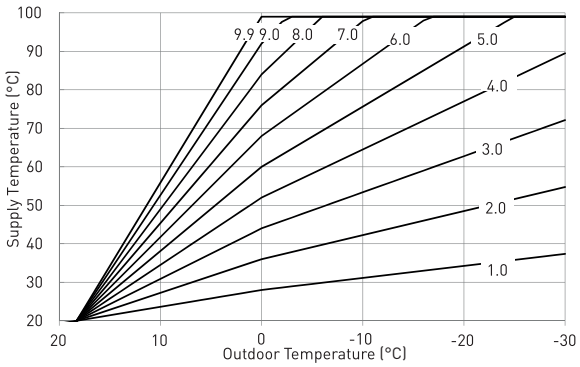
### LK 130 SMARTCOMFORT



**PUMP CONTROL - SMARTCOMFORT PC**

For further energy saving a pump control, SmartComfort PC, can easily be connected to the controller - see under Accessories. SmartComfort PC stops the circulating pump when no heat is required and exercises pump every two days, thus eliminating the risk of pump stalling after an intermission.

**LK 110 / 130 - CURVE SLOPE**




Dependent on the dimension of the heating system and the insulation of the building, the heating curve may need to be adjusted in order to achieve the desired room temperature. The curve slope and the parallel displacement are easily adjusted with the push buttons.

**LK ROOM TEMPERATURE UNIT**

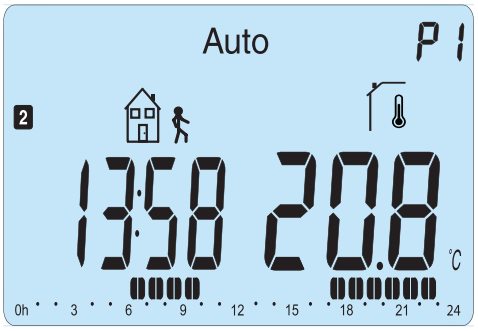
The room temperature unit is available in two versions; with fixed cable SmartComfort RT or wireless receiver SmartComfort RTW.

The room temperature unit is equipped with a connection port for external control, such as via a GSM modem, making it possible to activate a preset temperature change via mobile phone.

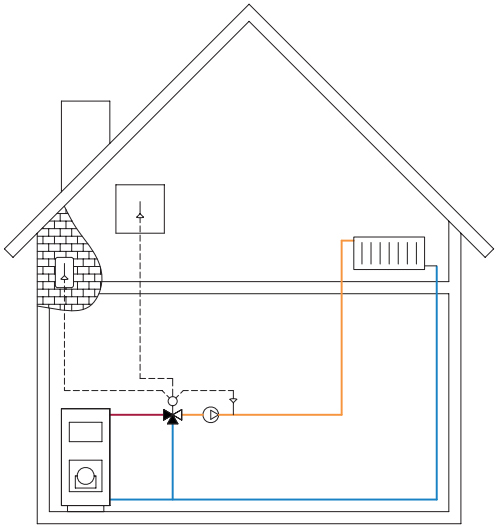
For further energy saving and increased comfort there are nine preset programs with scheduled temperature changes. You can also create your own programs. Additional functions such as holiday and timer settings are available. The current outdoor temperature can be read on the room temperature unit.

After a temperature setback the room temperature unit applies a booster function which briefly increases the supply temperature in order to quickly reach the desired room temperature. Should the room temperature unit sense a sudden change in temperature, such as when airing a room, the unit disregards this change for the following half hour.

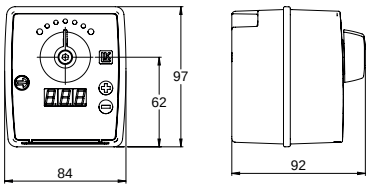
**LK 120/130 DISPLAY - ROOM TEMPERATURE UNIT**




**LK 130 SMARTCOMFORT**

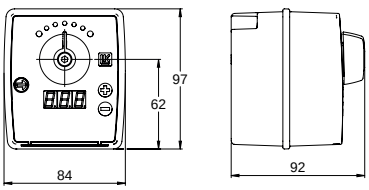


## LK 100 SmartComfort CT



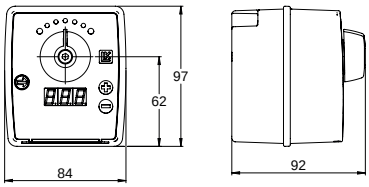

| Article no. | Type | Weight kg |
|---|---|---|
| 181242 | LK 100 SmartComfort CT - EU | 0.5 |
| 181248 | LK 100 SmartComfort CT - UK | 0.5 |
| 181249 | LK 100 SmartComfort CT - US | 0.5 |

## LK 110 SmartComfort



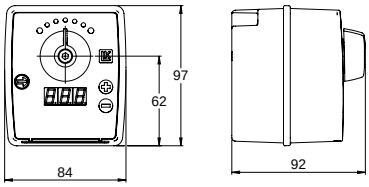

| Article no. | Type | Weight kg |
|---|---|---|
| 181243 | LK 110 SmartComfort - EU | 0.7 |
| 181250 | LK 110 SmartComfort - UK | 0.7 |
| 181251 | LK 110 SmartComfort - US | 0.7 |

## LK 120 SmartComfort




| Article no. | Type | Weight kg |
|---|---|---|
| 181244 | LK 120 SmartComfort - EU, with room temperature unit SmartComfort RT - 15 m cable | 0.8 |
| 181245 | LK 120 SmartComfort - EU, with room temperature unit SmartComfort RTW - wireless receiver | 0.7 |
| 181252 | LK 120 SmartComfort - UK, with room temperature unit SmartComfort RT - 15 m cable | 0.8 |
| 181254 | LK 120 SmartComfort - UK, with room temperature unit SmartComfort RTW - wireless receiver | 0.7 |
| 181253 | LK 120 SmartComfort - US, with room temperature unit SmartComfort RT - 15 m cable | 0.8 |

## LK 130 SmartComfort




| Article no. | Type | Weight kg |
|---|---|---|
| 181246 | LK 130 SmartComfort - EU, with room temperature unit SmartComfort RT - 15 m cable | 1.0 |
| 181247 | LK 130 SmartComfort - EU, with room temperature unit SmartComfort RTW - wireless receiver | 0.9 |
| 181256 | LK 130 SmartComfort - UK, with room temperature unit SmartComfort RT - 15 m cable | 1.0 |
| 181258 | LK 130 SmartComfort - UK, with room temperature unit SmartComfort RTW - wireless receiver | 0.9 |
| 181257 | LK 130 SmartComfort - US, with room temperature unit SmartComfort RT - 15 m cable | 1.0 |

### SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 187098 | Temperature controller SmartComfort CT | 1 |
| 187099 | Temperature controller SmartComfort | 1 |
| 025010 | Adapter 24 VDC - EU | 2 |
| 025011 | Adapter 24 VDC - UK | 2 |
| 025012 | Adapter 24 VDC - US | 2 |
| 181260 | Mounting kit LK | 3 |
| 025013 | Supply temperature sensor, 1 m cable | 4 |
| 025014 | Outdoor temperature sensor, 15 m cable | 5 |
| 025020 | Protective casing for outdoor temperature sensor | 6 |
| 187096 | Room temperature unit SmartComfort RT | 7 |
| 025025 | Cable for SmartComfort RT, 15 m | 8 |
| 025026 | Extension cable for SmartComfort RT, 15 m | 9 |
| 187113 | Room temperature unit SmartComfort RTW with wireless receiver | 10 |
| 187095 | Pump control SmartComfort PC | 11 |
| 025027 | Extension cable for outdoor temperature sensor, 15 m | 12 |
| 025008 | Extension cable for adapter, 1 m | 13 |

# Valve Actuator

## LK 941 EasyMix

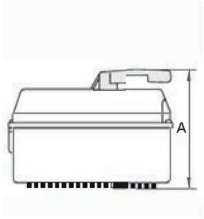
| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50 Hz<br>24 VAC 50 Hz |
| Power consumption | 6 VA |
| Angle of rotation | 90° electically limited |
| Torque | 15 Nm |
| Operation time | 73 s/147 s |
| Ambient temperature | Min. 0 °C/Max. 55 °C |
| Position indication | Reversible scale |
| Direction of operation | Selectable |
| Manual override | Disengagement of gears |
| Protection type | IP 44 |
| Protection class | II |
| Electrical connection | Cable 1 m |
| Signal connector | 3-point SPDT<br>0-10 VDC/4-20 mA |
| Type approval certificate | CE |

LK 941 EasyMix is a series of valve actuators. Depending on model the actuator can be operated by a controller with a 3-point SPDT output or a proportional 0-10 V / 4-20 mA output. The angle of rotation is electrically limited to 90°.

The actuator can be mounted in any position except below the valve. The actuator is mounted directly onto the valve spindle with a screw. An anti-rotation bolt keeps the actuator in position. When needed, the actuator can be put into manual mode by pressing and turning the button on the housing cover 90° to disengage the gears. The actuator can now be put in any position by turning the handle on the front. The position is indicated on the reversible scale.

LK 941 EasyMix fits most mixing valves on the market.

## LK 941




| Article no. | Connection | Voltage | Torque | Operation time | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 066129 | 1 m cable | 230 VAC | 15 Nm | 73 s | 92.5 | 125 | 78 | 0.6 |
| 066132 | 1 m cable | 230 VAC | 15 Nm | 147 s | 92.5 | 125 | 78 | 0.6 |
| 066133 | 1 m cable. 0 - 10 VDC | 24 VDC/AC | 15 Nm | 73 s | 92.5 | 125 | 78 | 0.6 |

# Valve Actuator

## LK 950 Valve Actuator

- Up to 10 Nm
- Wide range of products

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC 50/60 Hz<br>24 VAC 50/60 Hz,<br>24 VDC/AC 50/60 Hz |
| Power consumption | 1.5 - 3.5 W |
| Dimensioning* | 1.5 - 3.5 VA |
| Angle of rotation | 90°, electrically limited |
| Torque | 5/10 Nm |
| Operation time | 70/140/280 s |
| Ambient temperature | Min. 0 °C/Max. 50 °C |
| Position indication | Reversible scale |
| Direction of operation | Selectable |
| Manual override | Disengagement of gears |
| Protection type | IP 40 |
| Protection class | II (Double Insulated)<br>III (SELV) |
| Electrical connection | Cable 1.5 m, 3 x 0.75 mm² |
| Type approval certificate | CE |

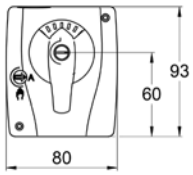
* Depending on model

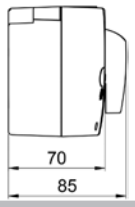
LK 950 is a series of valve actuators. Depending on model the actuator can be operated by a controller with a 3-point SPDT output or a proportional 2 (0) - 10 V output. The actuator is fitted with limit switches. The angle of rotation is electrically limited to 90°. An additional auxiliary adjustable switch can be ordered as an accessory.

The actuator can be mounted in any position except below the valve. The actuator is mounted directly onto the valve spindle with a screw. An anti-rotation bolt keeps the actuator in position. When needed, the actuator can be put into manual mode by turning the button on the housing cover 90° clockwise to disengage the gears. The actuator can now be put in any position by turning the handle on the front. The position is indicated on the reversible scale.

LK 950 fits most mixing valves. Mounting kits for mixing valves of other brands are availabale - please see the product sheet for Mounting Kits.

## LK 950




| Article no. | Voltage | Torque | Operation time | Note | Weight kg |
|---|---|---|---|---|---|
| 180742 | 24 VAC | 5 Nm | 70 s | Mounting kit is not included | 0.5 |
| 180744 | 24 VAC | 5 Nm | 140 s | Mounting kit is not included | 0.5 |
| 50801007 | 230 VAC | 5 Nm | 35 s | 1.5 m cable | 0.5 |
| 180756 | 230 VAC | 5 Nm | 70 s | 1.5 m cable | 0.5 |
| 180759 | 230 VAC | 5 Nm | 140 s | 1.5 m cable | 0.5 |
| 180760 | 230 VAC | 5 Nm | 140 s | 3 m cable | 0.5 |
| 180762 | 230 VAC | 10 Nm | 280 s | 1.5 m cable | 0.5 |
| 180764 | 230 VAC | 10 Nm | 140 s | 1.5 m cable | 0.5 |
| 181208 | 230 VAC | 5 Nm | 280 s | incl. auxiliary switch | 0.5 |
| 180978 | 230 VAC | 5 Nm | 280 s | 1.5 m cable | 0.5 |
| 180765 | 24 VDC/AC | 5 Nm | 70 s | 2 (0) - 10 V, without cable | 0.5 |
| 182323 | 24 VDC/AC | 5 Nm | 70 s | 2 (0) - 10 V, 3 m cable | 0.5 |

* Depending on model

### SPARE PARTS AND ACCESSORIES

1.

2.

3.

| Article no. | Article | Position |
|---|---|---|
| 180739 | Mounting kit 950 | 1 |
| 180741 | Auxiliary switch 950 | 2 |
| 026223 | Cable for auxiliary switch, 1.5 m | 3 |

# Mounting Kits

## Mounting Kits

## Mounting kits for mixing valves of other brands

| Article no. | Type | Valve brand |
|---|---|---|
| 187086 | 440, 450, 451, 460, 475, 476, W28 | Barberi |
| 187084 | DR-GMLA, DR-GFLA (DN 15-35) | Centra |
| 187087 | DR-MA (DN 15-50) | Centra |
| 180746 | | Danfoss |
| 180403 | VRG, VRB (DN 15-50) | ESBE |
| 187088 | BR80 SMD/SMV | Holter |
| 187094 | SERIES 2, VCI 31 (DN 20-40) | Landis & Staefa |
| 187089 | SERIES 1, B3F (DN 20-40) | Landis & Staefa |
| 187090 | | Lazzari |
| 187091 | 3W, 4W | Lovato |
| 187092 | MB | Satchwell |
| 187093 | MBF | Satchwell |
| 180747 | | Siemens |
| 180740 | 3W, 4W, H | Wita / Oventrop / Meibes |

# Differential Temperature Controller

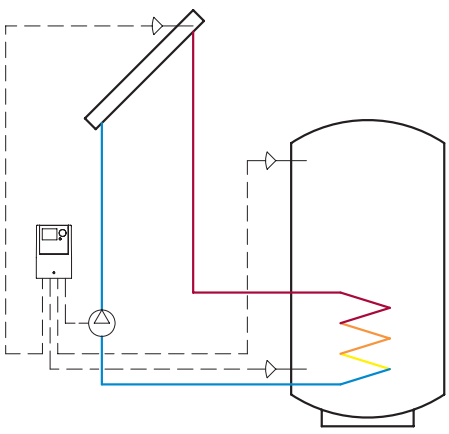
## LK 150 SmartSol

- Colour display
- Frost protection

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC, 50 Hz |
| Power consumption | 3.5 VA |
| Protection type | IP 20 |
| Protection class | II |
| Display | TFT backlit colour display 47 x 35 mm |
| Triac outputs | 230 VAC ± 10%, 1 A, 200 VA |
| Relay output | Max. 240 VAC, 4 A |
| Sensors | PT 1000 |
| High-efficiency pump | Analog output 0 -10 V, max. 10 mA<br>PWM output 100 Hz - 2 kHz |
| Type approval certificate | CE |

**ITEMS INCLUDED IN ARTICLE NO. 181796**

- Differential temperature controller LK 150 SmartSol Top
- Collector sensor PT 1000 - 3 m cable
- Three tank sensors PT 1000 - 4 m cable

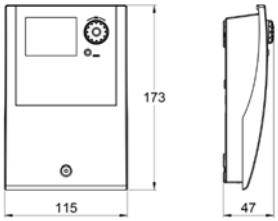


LK 150 SmartSol is an electronic differential temperature controller for solar heating systems. The controller has, depending on model, 20 or 24 preset hydraulic systems for different solar heating systems. The chosen hydraulic system and operating status is shown on the backlit colour display. Controls and settings are easily carried out using the rotating knob and the esc-button. LK 150 SmartSol can handle high efficiency pumps.

**FEATURES, MODEL "TOP"**

- Two speed controlled outputs for circulating pumps or valves
- Output for high efficiency pump
- Floating relay output
- Operation time counter for relay outputs
- Pump exercise
- Balancing of sensors
- Overheating protection for collectors and tanks
- Collector and tank cooling
- Anti-freeze
- Collector defrosting
- Tube collector function
- Additional heat
- Quick-charging
- Holiday function
- Integrated energy measuring
- Integrated clock with date
- Automatic summer/winter time
- Graphic, multilingual colour display
- Self-explanatory menu and user guide
- SD card slot for data logging (micro SD)
- One input for analog vortex flow sensor
- 24 hydraulic systems
- Terminal block for six PT 1000 sensors

# LK 150 SmartSol




| Article no. | Type | Weight kg |
|---|---|---|
| 181796 | 150 SmartSol Top | 0.7 |

## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 025042 | Differential temperature controller SmartSol Top | 1 |
| 181187 | Collector sensor PT 1000 Ø 5 mm - 3 m cable | 2 |
| 181186 | Tank sensor PT 1000 Ø 6 mm - 4 m cable | 3 |
| 180812 | Sensor pocket 150 mm | 4 |

# LK 160 SmartBio®


**LK 160 SmartBio®** is an electronic differential temperature controller that offers preset hydraulic systems for optimal heating in systems with storage tanks. The backlit color display provides clear insight into your system's operation, while user-friendly controls simplify adjustments. It can manage pumps and also trigger an immersion heater or burner when needed, ensuring consistent comfort.

# Differential Temperature Controller

## LK 160 SmartBio®

- With SmartBio you can optimize the energy efficiency, and have more environmentally friendly biomass fuel solution

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC, 50 Hz |
| Power consumption | 3.5 VA |
| Protection type | IP 20 |
| Protection class | II |
| Display | TFT backlit colour display 47 x 35 mm |
| Triac outputs | 230 VAC ± 10%, 1 A, 200 VA |
| Relay output | Max. 240 VAC, 4 A |
| Sensors | PT 1000 |
| High-efficiency pump | Analog output 0 -10 V, max. 10 mA<br>PWM output 100 Hz - 2 kHz |
| Type approval certificate | CE |

LK 160 SmartBio® is an electronic differential temperature controller with several preset hydraulic systems for energy efficiency in heating systems with storage tanks. The chosen hydraulic system and operation status is shown on the back-lit colour display. Controls and settings are easily carried out using the rotating knob and the esc-button. LK 160 SmartBio® can handle high efficiency pumps.

LK 160 SmartBio® can also activate an immersion heater or burner if the temperature in the primary tank falls below the selected value. The additional heat has a sophisticated delay function that further adds to the efficiency of the system.

**FEATURES**

- Several hydraulic systems
- Two outputs for circulating pumps
- Pump exercise
- Floating relay output
- Sensor balancing
- Adjustable delay function for additional heat
- Graphic, multilingual colour display with time and date
- User-friendly menu system
- SD card slot for data logging (micro SD)
- Speed control possible for two circulation pumps via PWM signal

**HYDRAULIC SYSTEM 1.**

Hydralic system 1 is intended for storage tank systems with a primary and secondary tank. LK 160 SmartBio® controls the two circulating pumps between the tanks. When the primary tank is fully charged the charge pump starts at the chosen temperature to fill the secondary tank. When the temperature in the primary tank falls, the recharging pump starts and transfers energy back to the primary tank.

**HYDRAULSYSTEM 1.1**

In order to prevent self-circulation in both directions LK 970 ThermoBac DB double acting check valve should be mounted between the circulating pumps - see under spare parts and accessories.

**HYDRAULIC SYSTEM 1.2**

The LK 824 ThermoVar® is a thermic valve with double acting check valve function which ensures a high return temperature to the solid fuel boiler, thus increasing the efficiency of the system – see spare parts and accessories.

**HYDRAULIC SYSTEM 2**

Hydraulic system 2 is intended for storage tank systems in which heating water and domestic hot water are taken from a secondary tank. Heat is to be transferred from the main tank to the secondary tank. By measuring the temperature difference between the tanks LK 160 SmartBio® controls the charge pump.

**HYDRAULIC SYSTEM 3**

Hydraulic system 3 is intended for the charging of a storage tank with a pellet, oil or gas fired burner. By measuring the temperatures in the tank and boiler LK 160 SmartBio® controls the burner and charge pump.

**HYDRAULIC SYSTEM 4**

Hydraulic system 4 is intended for storage tank systems with domestic hot water tanks. This system gives priority to the heat in the upper part of the main tank. This enables a fast transfer of heat to the domestic hot water tank. LK 160 SmartBio® controls the charge pump to the domestic hot water tank, the zone valve of the main tank and the circulator in the heating loop.

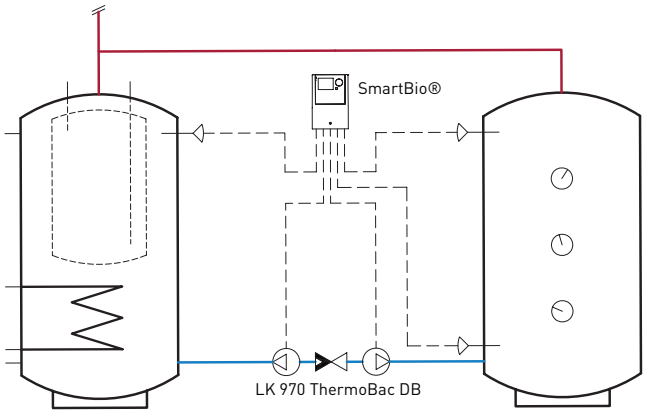
**STANDARD KIT**

- Differential temperature controller LK 160 SmartBio®
- Three sensors PT 1000 - 4 m cable

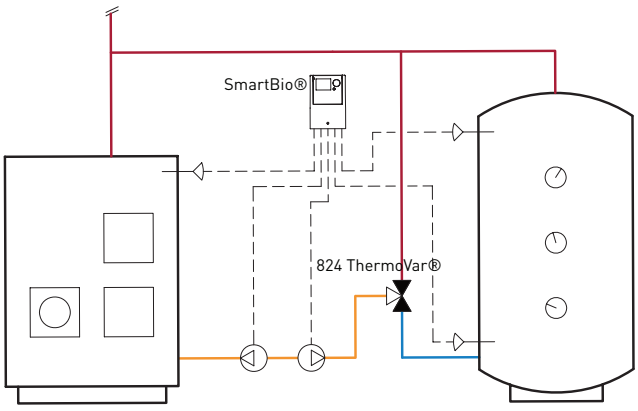
**KIT FOR HYDRAULIC SYSTEM 1.1**

- Differential temperature controller LK 160 SmartBio®
- Three sensors PT 1000 - 4 m cable
- Two circulating pumps Grundfos Alpha1 25-60/130
- Two ball valves 1”
- Check valve with double acting flow LK 970 ThermoBac DB
- Four gaskets EPDM

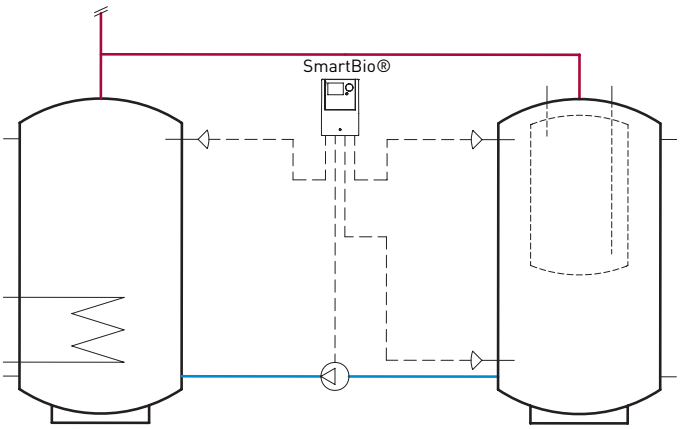
**HYDRAULIC SYSTEM 1.1**



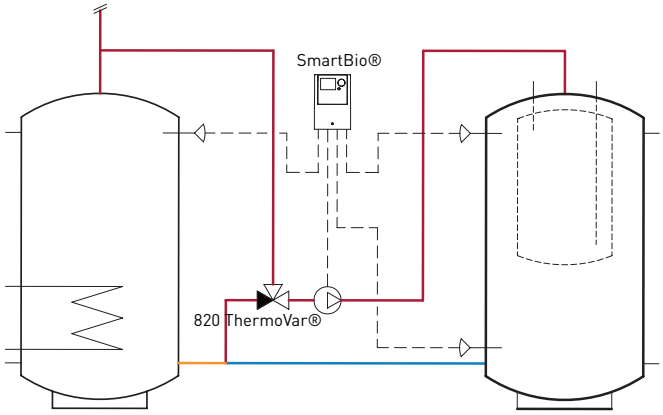

**HYDRAULIC SYSTEM 1.2**



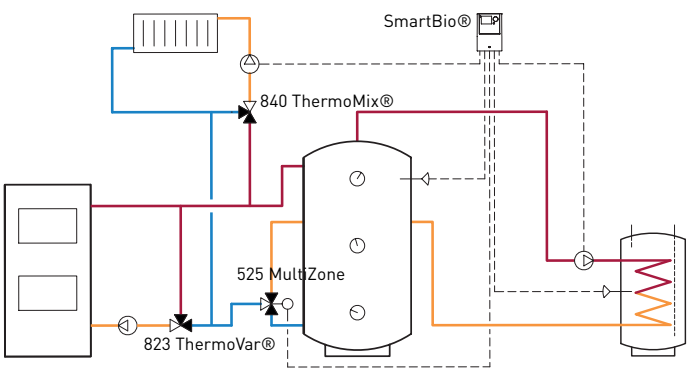

**HYDRAULIC SYSTEM 3**



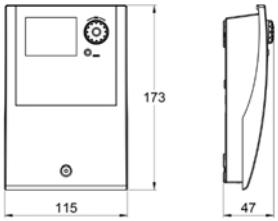

**HYDRAULIC SYSTEM 2**




**HYDRAULIC SYSTEM 4**



# LK 160 SmartBio®




| Article no. | Type | Weight kg |
|---|---|---|
| 181234 | LK 160 SmartBio standard kit | 0.7 |
| 181233 | LK 160 SmartBio® kit for hydraulic system 1 | 6.2 |

## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 025017 | Differential temperature controller SmartBio® | 1 |
| 181186 | Tank sensor PT 1000 Ø 6 mm - 4 m cable | 2 |
| 187129 | Circulating pump Grundfos Alpha1 25-60/130 | 3 |
| 187017 | Ball valve F 1" | 4 |
| 187018 | Ball valve F 1¼" | 5 |
| 187019 | Ball valve 28 mm | 6 |
| 180487 | Check valve with double acting flow LK 970 ThermoBac DB | 7 |
| 180812 | Sensor pocket 150 mm | 8 |
| 013025 | Gasket EPDM 1½" - Ø44 x Ø27 x 2 mm | 9 |
| 181553 | LK 824 ThermoVar® M 1½", 45 °C | 10 |
| 181554 | LK 824 ThermoVar® M 1½", 55 °C | 10 |
| 181555 | LK 824 ThermoVar® M 1½", 61 °C | 10 |
| 181556 | LK 824 ThermoVar® M 1½", 66 °C | 10 |
| 181557 | LK 824 ThermoVar® M 1½", 72 °C | 10 |
| 180810 | Connection M 1½" x M 1½", L30 mm | 11 |

# Differential Temperature Controller

## LK 162 SmartStove®

- With the alarm function in case of over temperature, you can enjoy the warmth without worrying

| TECHNICAL DATA | |
|---|---|
| Voltage | 230 VAC, 50 Hz |
| Power consumption | 3,5 VA |
| Protection type | IP 20 |
| Protection class | II |
| Display | TFT backlit colour display, 47 x 35 mm |
| Triac outputs | 230 VAC ± 10%, 1 A, 200 VA |
| Relay output | Max. 240 VAC, 4 A |
| Sensors | PT 1000 |
| High-efficiency pump | Analog output 0 -10 V, max. 10 mA<br>PWM output 100 Hz - 2 kHz |
| Type approval certificate | CE |

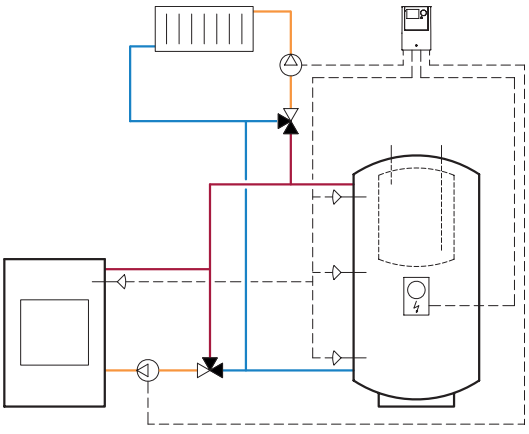
LK 162 SmartStove® is a biomass controller for multi-fuel water containing stoves with buffer tanks. The controller has a number of preset hydraulic systems for different installations.

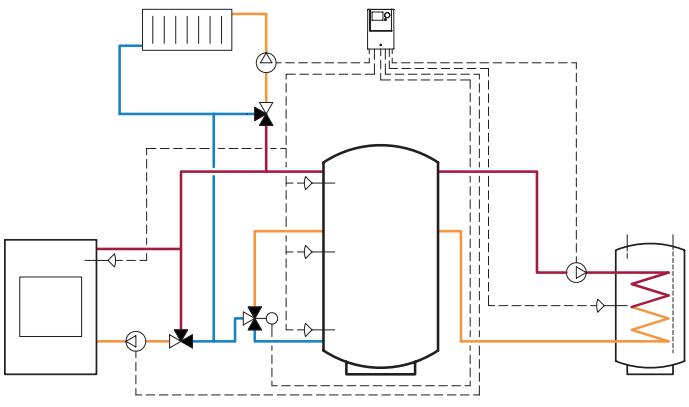
For indication of the active hydraulic system and the current temperatures in stove and buffer tank the controller is equipped with a coloured full graphics display which is permanently backlit.

LK 162 SmartStove® can control the charge pump of a loading unit, the circulator in a heating loop, high-efficiency pumps and an additional heat source.

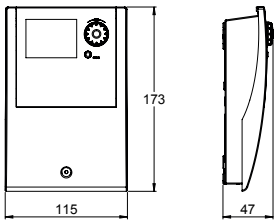
**FEATURES**

- Acoustic alarm and indication in the display if over temperature should occur in stove or buffer tank
- A temperature sensor in the stove controls the charge pump of the loading unit which means that no fluegas thermostat is needed
- Pump delay function. The charge pump in the loading unit does not start until the stove has reached a certain temperature. This saves energy, prevents tarring and considerably prolongs the life-time of the stove
- Dynamic pump control can be activated when the loading unit is equipped with a speed-controlled pump. The pumpcontrol keeps the flow at a constant temperature
- Economy or comfort mode can be selected to optimize energy efficiency in the potable hot water boiler and/or in the heating system
- Controls an additional heat source
- Delay function for the additional heat source
- 7 hydraulic systems which can be mirrored
- 2 outputs for speed-controlled pumps with PWM and/ or analogue signal
- 6 terminals for temperature sensors
- 1 floating change-over contact
- SD card slot for data logging and software update
- Legionella prevention
- Pump exercise
- Freeze protection





# LK 162 SmartStove®




| Article no. | Type | Weight kg |
|---|---|---|
| 181708 | LK 162 SmartStove® | 0.7 |

Four sensors included (PT 1000 - 4 m cable).

## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 181186 | Tank sensor PT 1000 Ø 6 mm - 4 m cable | 1 |
| 180812 | Sensor pocket 150 mm | 2 |

# Easy to Choose

See our products in person at exhibitions near you


**Trade fairs planned for 2025**

ISH Germany
InstallerSHOW United Kingdom

# Design your own zone valve

Cable
Molex®
24 VAC
230 VAC

Actuator,
60° angle of rotation

Female thread
¾"
1"
1¼"

Male thread
¾"
1"
1¼"

Quick Connection
Ø22
Ø28

Compression fitting
Ø22
Ø28

3-Way

Female thread

Male thread

Quick Connection

Compression fitting

For more information please contact our Sales Department.

# Design your own valve

Cable
24 VAC
230 VAC

Actuator,
90° angle of rotation

Female thread
¾"
1"
1¼"

Male thread
¾"
1"
1¼"

Quick Connection
Ø22
Ø28

Compression fitting
Ø22
Ø28

2-Way

3-Way regulating
Kvs 4

3-Way regulating
Kvs 8

2-Way

Female thread

Male thread

Quick Connection

Compression fitting

# Connect quickly and securely

## Quick connection solutions save assembly time and ensure correct installation – every time.

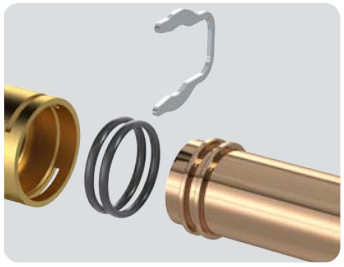
To meet a growing trend for products that can be installed quickly and easily, we have developed a quick-connection solution for the OEM industry.

A specially designed end form with two O-rings to seal the joint between the two elements. By using double O-rings, we create a more secure, guaranteed sealed connection. The pipe is held in place in the valve by a locking pin.

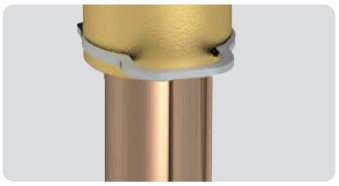
End forming can be performed on copper or stainless steel pipes with dimensions Ø 22 mm and Ø 28 mm

**END FORMING FOR DOUBLE O-RINGS TAKES INSTALLATION TO A NEW LEVEL**

- Quick installation
- Exactly the same assembly procedure every time
- Allows for any tolerances
- Double O-rings for a guaranteed sealed connection



Double O-rings for guaranteed sealed connections that allow for tolerances.



Quick and secure fastening with locking pin

# Zone Valves

## LK 525 MultiZone 2W

- Simple and flexible assembly with clip system
- Actuators are available as normally closed (NC) or normally open (NO). Direction is displayed on the actuator

**TECHNICAL DATA**

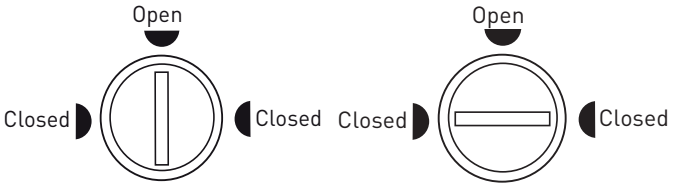
| | |
|---|---|
| Angle of rotation | 90°/360° |
| Leakage | < 0.1% of Kvs at 100 kPa |
| Operation time | 12 seconds (90°) |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min. 5 °C/Max. 80 °C<br>(90 °C briefly) |
| Ambient temperature | Min. 1 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread, ISO 228/1 |
| Protection type | IP 44 |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Electrical connection | Fixed wire |
| Signal connector | Single pole SPST |
| Cable specification | Dimension 3 x 0,75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Actuator | 7 VA, 230 VAC, 50 Hz |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12164 CW614N |
| Material slide/spindle | PPS Composite |
| Type approval certificate | CE (Actuator only) |

LK 525 MultiZone is a motorized 2-way zone valve for application in heating systems in which the flow through one or more zones is to be controlled. The zone valve has On/Off control and is designed with a turning slide which allows it to withstand a larger pressure difference and reduces the risk of it stalling after a long intermission. On the upper surface of the actuator is an indicator that shows which port is open or closed.

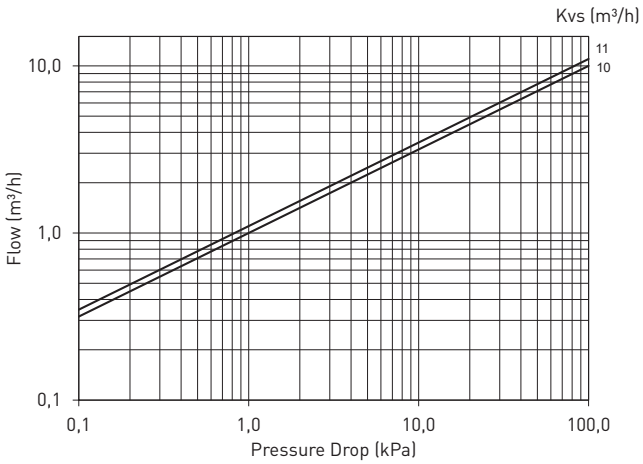
The zone valve must not be installed with the motor underneath the valve unit.

In case of a power failure, the valve cone stays in its current position. When the power is switched off, the valve can be manually set. Remove the motor and turn the spindle to your selected position. When the power is restored, turn the valve back to its original position and reinstall the motor.

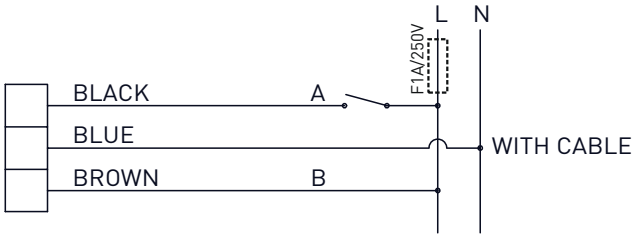
Please note that the motor can be installed in only one position.



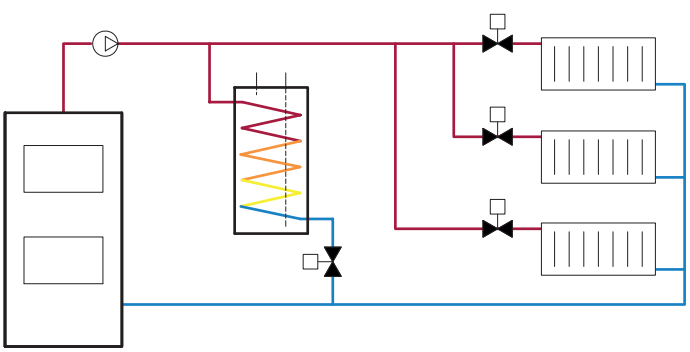

**CAPACITY DIAGRAM**



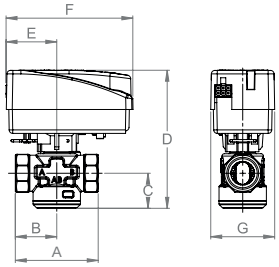

**WIRING DIAGRAM**




Valve and motor are available in closed or open position. (NC; Normally Closed or NO; Normally Open)

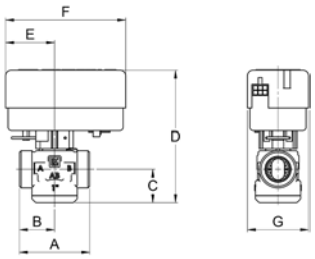


## LK 525 2W - Female thread



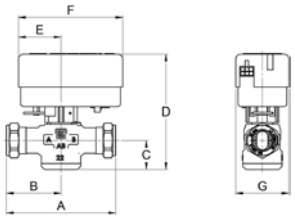

| Article no. | Type | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066246 | NO | F ¾" | 10.0 | 70 | 35 | 30 | 118 | 43 | 107 | 54 | 0.2 |
| 066247 | NO | F 1" | 11.0 | 74 | 37 | 30 | 118 | 43 | 107 | 54 | 0.3 |
| 066423 | NC | F ¾" | 10.0 | 70 | 35 | 30 | 118 | 43 | 107 | 54 | 0.2 |
| 066424 | NC | F 1" | 11.0 | 74 | 37 | 30 | 118 | 43 | 107 | 54 | 0.3 |

## LK 525 2W - Male thread



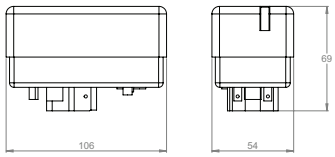

| Article no. | Type | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066112 | NC | M ¾" | 10.0 | 70 | 35 | 30 | 118 | 43 | 107 | 54 | 0.2 |
| 066102 | NC | M 1" | 11.0 | 62 | 31 | 30 | 118 | 43 | 107 | 54 | 0.3 |
| 066103 | NC | M 1¼" | 11.0 | 74 | 37 | 30 | 118 | 43 | 107 | 54 | 0.6 |
| 066115 | NO | M ¾" | 10.0 | 70 | 35 | 30 | 118 | 43 | 107 | 54 | 0.2 |
| 066113 | NO | M 1" | 11.0 | 62 | 31 | 30 | 118 | 43 | 107 | 54 | 0.3 |
| 066114 | NO | M 1¼" | 11.0 | 74 | 37 | 30 | 118 | 43 | 107 | 54 | 0.6 |

## LK 525 2W - Compression fitting



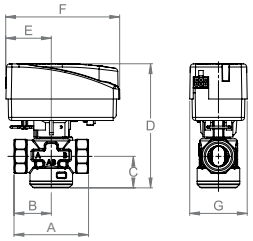

| Article no. | Type | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066104 | NC | 22 mm | 11.0 | 110 | 55 | 30 | 118 | 43 | 107 | 54 | 0.4 |
| 066105 | NC | 28 mm | 11.0 | 110 | 55 | 30 | 118 | 43 | 107 | 54 | 0.6 |
| 066116 | NO | 22 mm | 11.0 | 110 | 55 | 30 | 118 | 43 | 107 | 54 | 0.4 |
| 066119 | NO | 28 mm | 11.0 | 110 | 55 | 30 | 118 | 43 | 107 | 54 | 0.6 |

## LK 525 - Actuator



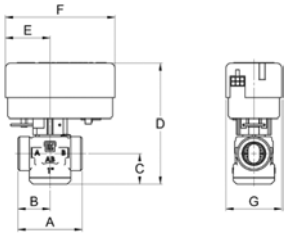

| Article no. | Type | Connection | Torque | Weight kg |
|---|---|---|---|---|
| 066111 | NC | EMV 110-K SPST Actuator 230 VAC, Cable 1 m | 5 Nm | 0.3 |
| 066199 | NO | EMV 110-K SPST Actuator 230 VAC, Cable 1 m | 5 Nm | 0.3 |

## LK 525 2W SET – incl. Actuator 230VAC 1m Cable - Female thread



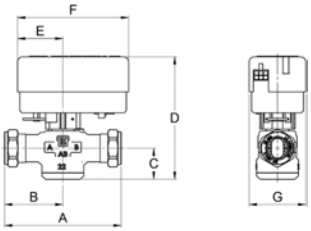

| Article no. | Type | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | G mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066442 | NC | F ¾" | 10.0 | 5 Nm | 70 | 35 | 30 | 118 | 43 | 107 | 54 |
| 066443 | NC | F 1" | 11.0 | 5 Nm | 62 | 31 | 30 | 118 | 43 | 107 | 54 |

## LK 525 2W SET – incl. Actuator 230VAC 1m Cable - Male thread




| Article no. | Type | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | G mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066437 | NC | M ¾" | 10.0 | 5 Nm | 70 | 35 | 30 | 118 | 43 | 107 | 54 |
| 066438 | NC | M 1" | 11.0 | 5 Nm | 62 | 31 | 30 | 118 | 43 | 107 | 54 |
| 066439 | NC | M 1 ¼" | 11.0 | 5 Nm | 70 | 35 | 30 | 118 | 43 | 107 | 54 |

## LK 525 2W SET – incl. Motor 230VAC 1m Cable - Compression fitting




| Article no. | Type | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | G mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 066440 | NC | 22 mm | 11.0 | 5 Nm | 110 | 55 | 30 | 118 | 43 | 107 | 54 |
| 066441 | NC | 28 mm | 11.0 | 5 Nm | 110 | 55 | 30 | 118 | 43 | 107 | 54 |

# Mixing / Diverting valve

## LK 525 MultiZone 3R

- Low internal leakage
- The slide is designed to provide accurate regulation at low flows
- Click system for actuator

**TECHNICAL DATA**

| | |
|---|---|
| Voltage | 230 VAC, 50 Hz |
| Power consumption | 5 VA |
| Angle of rotation | 90° |
| Torque | 5 Nm |
| Leakage | < 0.1% of Kvs at 100 kPa |
| Operation time | 110 s |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature | Min. 5 °C/Max. 80 °C (90 °C briefly) |
| Ambient temperature | Min. 5 °C/Max. 55 °C |
| Manual override | Yes |
| Thread standard | G - male thread, ISO 228/1 |
| Protection type | IP 44 |
| Protection class | II |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Electrical connection | Fixed wire |
| Signal connector | 3 point SPDT |
| Cable specification | 3 x 0.75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12164 CW614N |
| Material slide/spindle | PPS Composite |
| Type approval certificate | CE (Actuator only) |

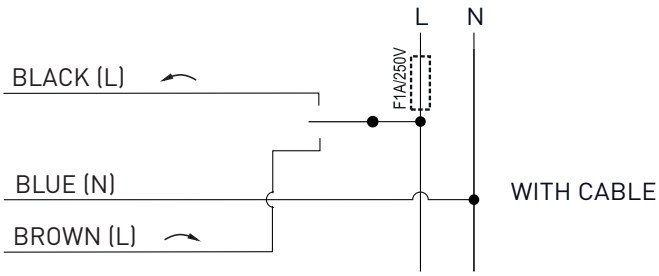
LK 525 MultiZone 3R is a 3-way valve that can be used as a mixing valve or as a diverting valve in heating systems.

The valve is constructed so that the leakage is less than 0.1% of Kvs at 100 kPa. It also has a split linear characteristic which means that the regulation is good even at low flows and capacities.

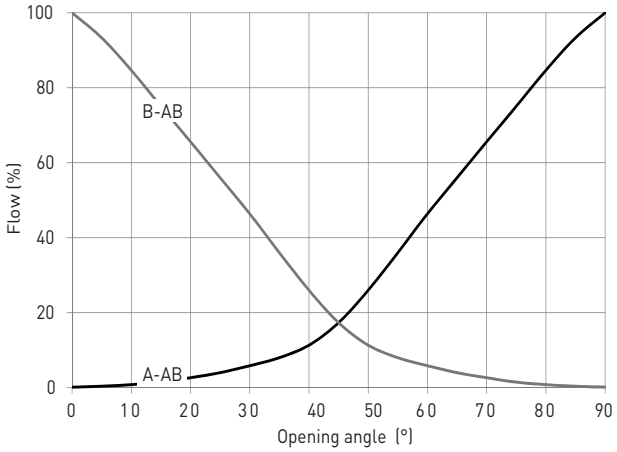
The valve must not be installed with the motor underneath the valve unit. Please note that the motor can be installed in only one position.

The motor operates anti clockwise when the black conductor is powered and clockwise when the brown conductor is powered.

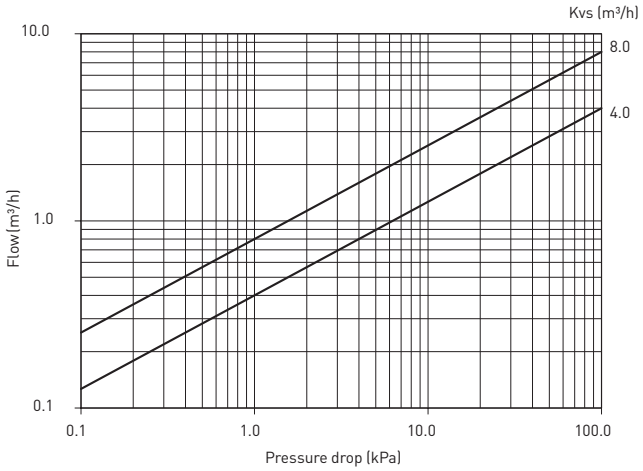
**WIRING DIAGRAM**

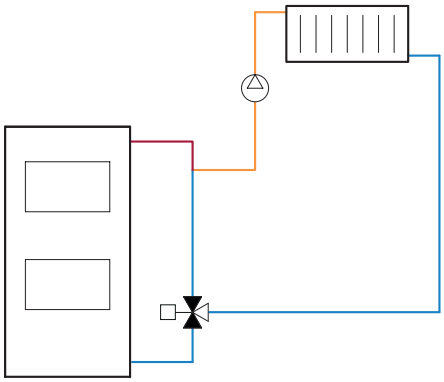


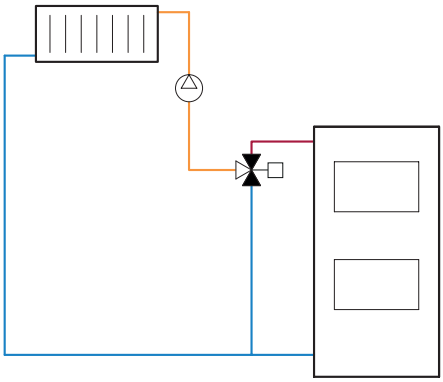

**VALVE CHARACTERISTICS**



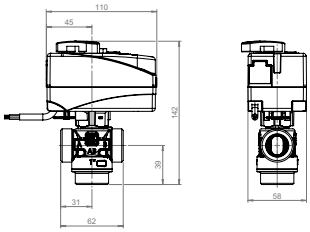

**CAPACITY DIAGRAM**







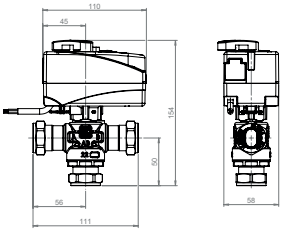
## LK 525 3R - Male thread



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066077 | M 1" | 8.0 | 62 | 31 | 39 | 132 | 46 | 109 | 58 | 0.3 |

Other dimensions and Kvs on request.

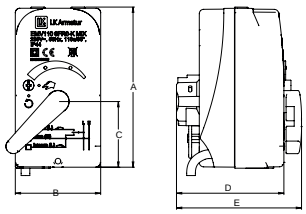
## LK 525 3R - Compression fitting



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066079 | 22 mm | 8.0 | 110 | 55 | 50 | 143 | 46 | 109 | 58 | 0.4 |
| 066080 | 28 mm | 8.0 | 110 | 55 | 54 | 147 | 46 | 109 | 58 | 0.6 |

Other dimensions and Kvs on request.

## LK 940 C



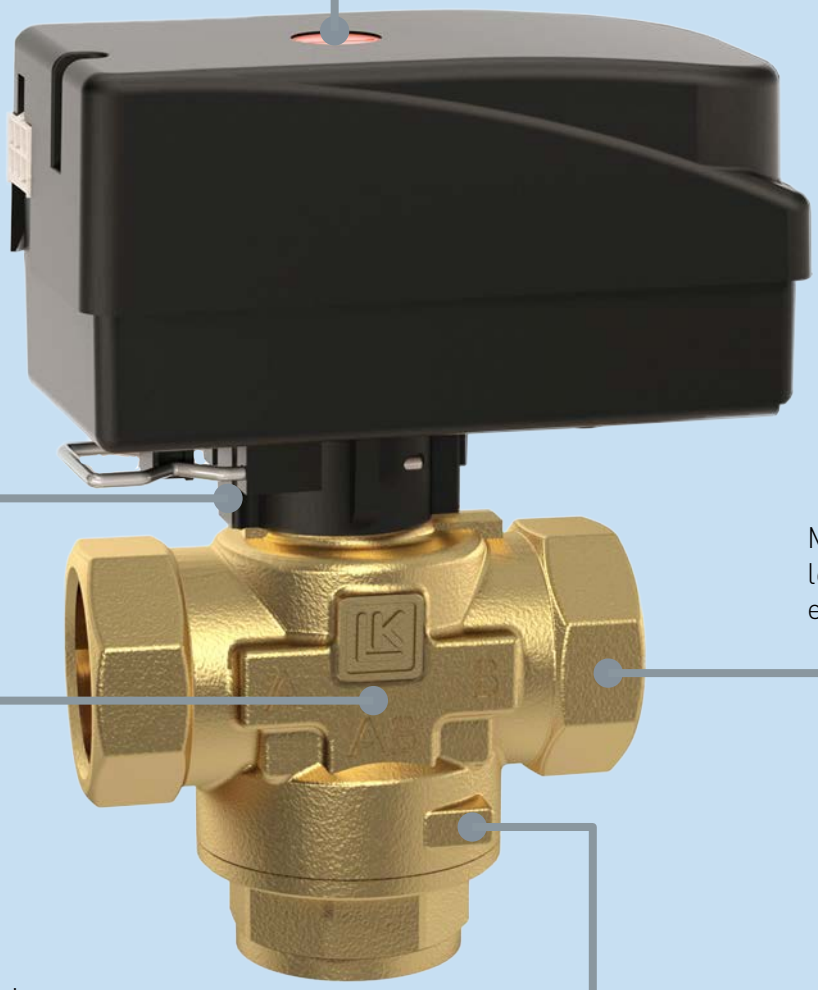
| Article no. | Connection | Voltage | Torque | Operation time | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066127 | 1 m cable | 230 V | 5 Nm | 110 s* | 109 | 58 | 45 | 73 | 85 | 0.4 |
| 066128 | 1 m cable 0-10 VDC | 24 VAC | 5 Nm | 110 s* | 109 | 58 | 45 | 73 | 85 | 0.4 |

*Other operation times on request.

### SPARE PARTS AND ACCESSORIES

| Article no. | Article | Position |
|---|---|---|
| 187202 | Insulation | 1 |

# LK 525 MultiZone 3V




**LK 525 MultiZone 3W** is a motorized 3-way zone valve with a unique turning slide which allows it to withstand a larger pressure difference and reduces the risk of it stalling after a long intermission. This makes it especially suited for heat pump applications where there can be long intermissions between the changes to the direction of the flow during the warm season. Plus, its minimal internal leakage and quick clip system assembly make it a reliable choice for precise On/Off control.

# Zone Valve

## LK 525 MultiZone 3W

- Turning slide to reduce risk of stalling
- Minimal internal leakage
- Quick and easy assembly with clip system

**TECHNICAL DATA**

| | |
|---|---|
| Angle of rotation | 60°/360° |
| Leakage<br>Leakage Solar: | < 0.1% of Kvs at 100 kPa<br>< 0.5% of Kvs at 100 kPa |
| Operation time | 8 seconds (60°) |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Working temperature<br>Art.no. 066399, 066418:<br>Cooling/Heating (inkl. adapter): | Min. 5 °C/Max. 80 °C (90 °C briefly)<br>Min. 5 °C/Max. 70 °C (80 °C briefly)<br>Min. -15 °C/Max. 120 °C (160 °C briefly) |
| Ambient temperature | Min. 1 °C/Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread, ISO 228/1 |
| Protection type | IP 40 (Molex®) / IP 44 (Cable) |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Electrical connection | Fixed wire alternatively Molex® or Molex®-compatible connector, 6-circuit |
| Signal connector | Single pole SPST |
| Cable specification | Dimension 3 x 0.75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Actuator | 7 VA, 230 VAC, 50 Hz<br>7 VA, 24 VAC, 50 Hz |
| Material valve body | Brass EN 12165 CW617N |
| Material external cover | Brass EN 12164 CW614N |
| Material slide/spindle | PPS Composite |
| Type approval certificate | CE (Actuator only) |

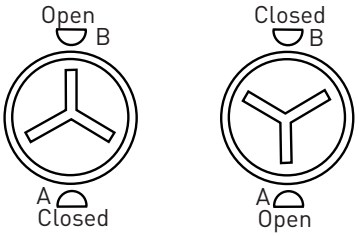
LK 525 MultiZone 3W is a motorized 3-way zone valve for On/Off control. The zone valve is designed with a turning slide which allows it to withstand a larger pressure difference and reduces the risk of it stalling after a long intermission. This makes it especially suited for heat pump applications where there can be long intermissions between the changes to the direction of the flow during the warm season. On the upper surface of the actuator is an indicator that shows which port is open.

Installing the 066177 plastic adapter between the valve unit and the motor protects the motor against condensation, icing and high temperatures.

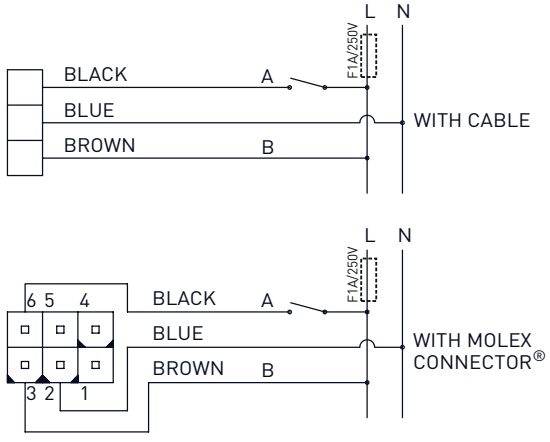
The zone valve must not be installed with the motor underneath the valve unit.

In case of a power failure, the valve cone stays in its current position. When the power is switched off, the valve can be manually set to the centre position, which distributes the flow between the heating and tap water circuits. Remove the motor and turn the spindle about 30° or turn until hot water flows through both valve ports. When the power is restored, turn the valve back to its original position and reinstall the motor.

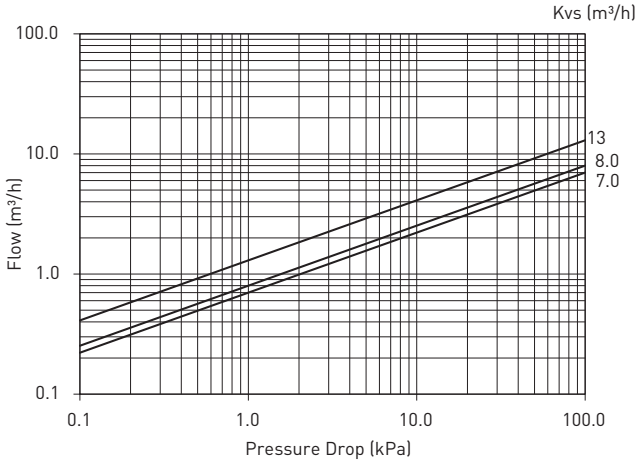
Please note that the motor can be installed in only one position.

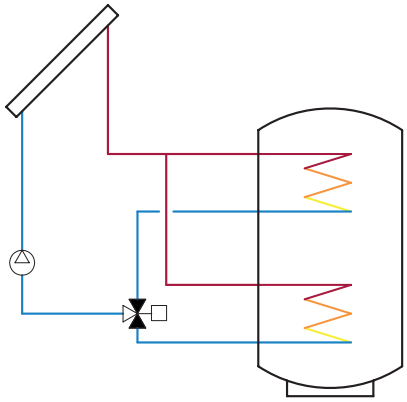


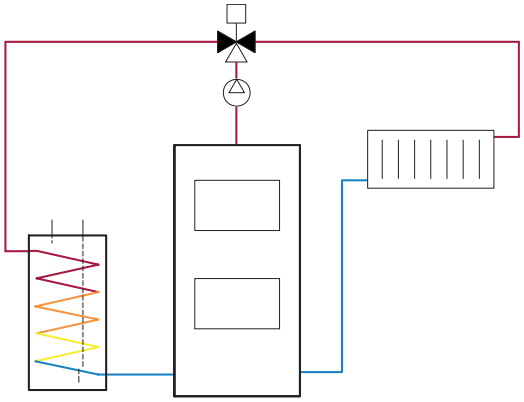

**WIRING DIAGRAM**



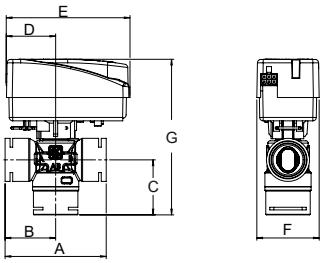

**CAPACITY DIAGRAM**





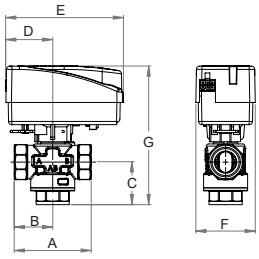


## LK 525 3W - Quick Connection



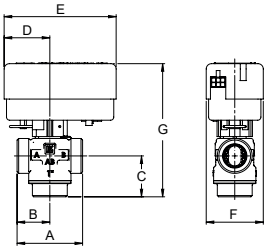

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 182306 | Ø 22 | 8.0 | 84 | 42 | 46 | 43 | 107 | 54 | 135 | 0.3 |
| 182307 | Ø 28 | 8.0 | 88 | 44 | 48 | 43 | 107 | 54 | 135 | 0.5 |

## LK 525 3W - Female thread



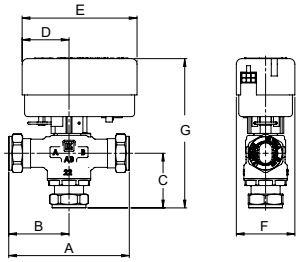

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066420 | F ¾" | 7.0 | 70 | 35 | 39 | 43 | 107 | 54 | 126 | 0.3 |
| 066421 | F 1" | 8.0 | 74 | 37 | 40 | 43 | 107 | 54 | 127 | 0.3 |

## LK 525 3W - Male thread



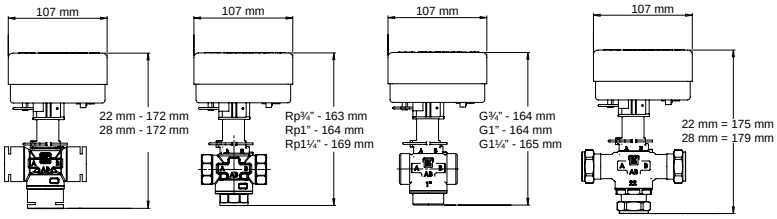

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066000 | M ¾" | 7.0 | 70 | 35 | 39 | 43 | 107 | 54 | 127 | 0.3 |
| 066106 | M 1" | 8.0 | 62 | 31 | 39 | 43 | 107 | 54 | 127 | 0.3 |
| 066107 | M 1¼" | 8.0 | 74 | 37 | 40 | 43 | 107 | 54 | 128 | 0.6 |
| 066418 | M 1¼" | 13.0 | 80 | 40 | 40 | 43 | 107 | 54 | 128 | 0.7 |

## LK 525 3W - Compression fitting



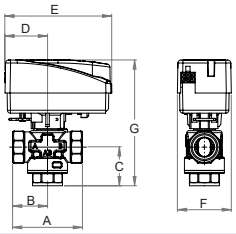

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066108 | 22 mm | 8.0 | 110 | 55 | 50 | 43 | 107 | 54 | 138 | 0.4 |
| 066109 | 28 mm | 8.0 | 110 | 55 | 54 | 43 | 107 | 54 | 142 | 0.6 |
| 066399 | 28 mm | 13.0 | 100 | 50 | 52 | 43 | 107 | 54 | 140 | 0.7 |

## LK 525 3W - Actuator and Adaptor



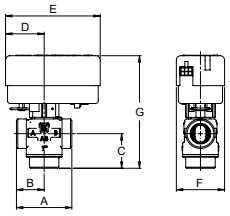

| Article no. | Torque | Note | Weight kg |
|---|---|---|---|
| 066177 | | Adapter Polar / Solar | 0.03 |
| 066060 | 5 Nm | EMV 110-M SPST Actuator 230 VAC with Molex® | 0.3 |
| 066061 | 5 Nm | EMV 110-K SPST Actuator 230 VAC with cable 1 m | 0.3 |
| 066062 | 5 Nm | EMV 110-K SPST Actuator 230 VAC with cable 3 m | 0.4 |
| 066063 | 5 Nm | EMV 110-M SPST Actuator 24 VAC with Molex® | 0.3 |
| 066083 | | Cable-M 3x0.75 L=1 m with Molex® | 0.1 |
| 066086 | | Cable-M 3x0.75 L=1.7 m with Molex® | 0.1 |

## LK 525 3W SET - incl. Motor 230VAC 1m Cable - Internal thread



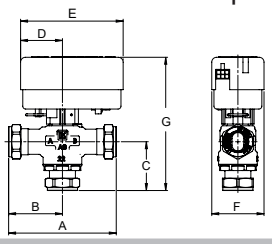

| Article no. | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066433 | F ¾" | 7.0 | 5 Nm | 70 | 35 | 39 | 43 | 107 | 54 | 0.6 |
| 066434 | F 1" | 8.0 | 5 Nm | 74 | 37 | 40 | 43 | 107 | 54 | 0.6 |

## LK 525 3W SET - incl. Motor 230VAC 1m Cable - Male thread




| Article no. | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066426 | M ¾" | 7.0 | 5 Nm | 70 | 35 | 39 | 43 | 107 | 54 | 0.6 |
| 066427 | M 1" | 8.0 | 5 Nm | 62 | 31 | 39 | 43 | 107 | 54 | 0.6 |
| 066428 | M 1¼" | 8.0 | 5 Nm | 74 | 37 | 40 | 43 | 107 | 54 | 0.9 |
| 066429 | M 1¼" | 13.0 | 5 Nm | 88 | 44 | 48 | 43 | 107 | 54 | 1.1 |

# LK 525 3W SET - incl. Motor 230VAC 1m Cable - Compression fitting




| Article no. | Dim. | Kvs m³/h | Torque | A mm | B mm | C mm | D mm | E mm | F mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 066430 | 22 mm | 8.0 | 5 Nm | 110 | 55 | 50 | 43 | 107 | 54 | 0.7 |
| 066431 | 28 mm | 8.0 | 5 Nm | 110 | 55 | 54 | 43 | 107 | 54 | 0.9 |
| 066432 | 28 mm | 13.0 | 5 Nm | 114 | 57 | 59 | 43 | 107 | 54 | 1.1 |

**SPARE PARTS AND ACCESSORIES**

| Article no. | Article | Position |
|---|---|---|
| 187202 | Insulation | 1 |

# Zone Valve

## LK 527 MultiZone 2W

- Click system for actuator

**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 3.2 MPa (32 bar) |
| Max. differential pressure | 600 kPa (6 bar) |
| Working temperature | Min. 2 °C/Max. 110 °C |
| Ambient temperature | Min. 1 °C/Max. 55 °C |
| Thread standard | R - male thread,<br>Rp - female thread,<br>G - male thread |
| Protection type | IP 44 |
| Media | Water - Glycol mixture max. 50% |
| Electrical connection | Fixed wire |
| Signal connector | 2-Point SPST |
| Cable specification | Dimension 3 x 0,75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Actuator | 230 VAC, 50 Hz |
| Material valve body | Brass EN 12165 CW617N |
| Material ball | Brass CW617N |
| Type approval certificate | Actuator: CE<br>Valve: DIN-DVGW*, WRAS*, ACS |

*Applies for 527 MultiZone 2W female thread

LK 527 MultiZone is a motorized 2-way ball valve with high flow capacity for applications in, for example heating, cooling and domestic water systems.

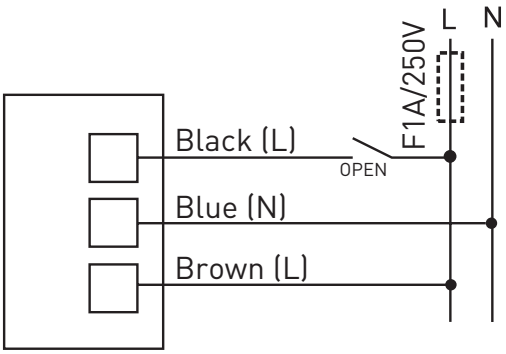
The zone valve has On/Off control and is controlled by 2-point signal.

Assembly/disassembly of actuator on the ball valve is simple and secure, using the clip-system. The zone valve must not be installed with the actuator underneath the valve unit.

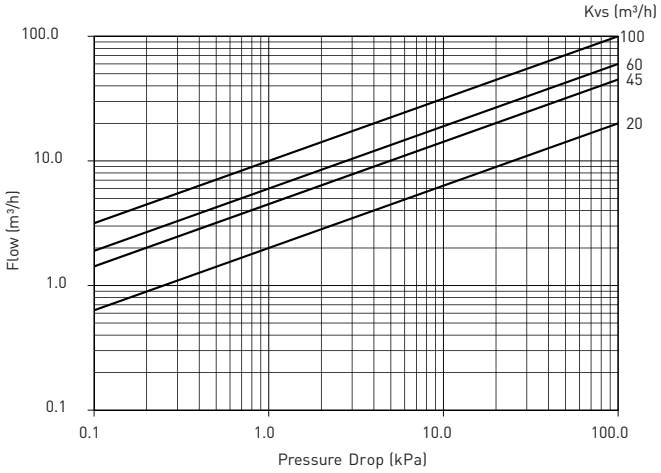
In case of a power failure, the valve stays in its current position. When the power is switched off, the valve can be manually set by the handle on the actuator.

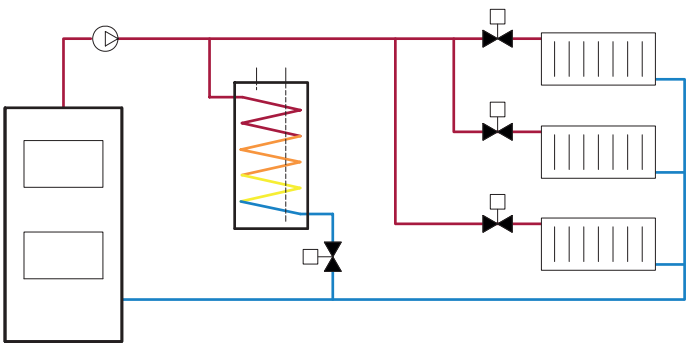
Please note that the actuator can be installed in only one position.

**WIRING DIAGRAM**

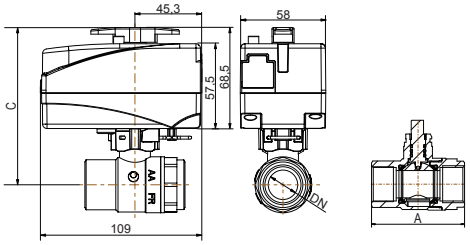



**CAPACITY DIAGRAM**



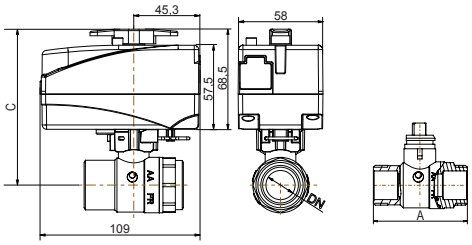
## LK 527 2W - Female Thread




| Article no. | Dim. | Kvs m³/h | A mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 066263 | F ½" | 20.0 | 62 | 104 | 0.6 |
| 066264 | F ¾" | 45.0 | 68 | 107 | 0.7 |
| 066265 | F 1" | 60.0 | 81 | 112 | 0.9 |
| 066266 | F 1¼" | 100.0 | 86 | 117 | 1.1 |

Other dimensions on request.

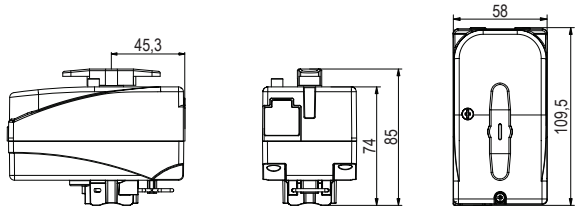
## LK 527 2W - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 066279 | M 1" | 45.0 | 74 | 107 | 0.8 |
| 066280 | M 1¼" | 60.0 | 82 | 112 | 1.0 |

Other dimensions on request.

## LK 527 - Actuator




| Article no. | Connection | Voltage | Torque | Operation time | Weight kg |
|---|---|---|---|---|---|
| 066282 | 2-point SPST output, with cable 1 m | 230 V | 5 Nm | 12s / 90° | 0.4 |
| 066283 | 2-point SPST output, with cable 1 m | 230 V | 5 Nm | 30s / 90° | 0.4 |

# Zone Valve

## LK 527 MultiZone 3W

- Click system for actuator

**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 3.2 MPa (32 bar) |
| Max. differential pressure | 600 kPa (6 bar) |
| Working temperature | Min. 2 °C/Max. 110 °C |
| Ambient temperature | Min. 1 °C/Max. 55 °C |
| Thread standard | R - male thread,<br>Rp - female thread,<br>G - male thread |
| Protection type | IP 44 |
| Media | Water - Glycol mixture max. 50% |
| Electrical connection | Fixed wire |
| Signal connector | 3-Point SPDT |
| Cable specification | Dimension 3 x 0.75 mm² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Actuator | 230 VAC, 50 Hz |
| Material Ball | Brass CW617N |
| Material, valve body | Brass CW617N |
| Type approval certificate | Actuator: CE<br>Valve: ACS |

LK 527 MultiZone is a motorized 3-way ball valve for applications in, for example heating, cooling and domestic water systems.

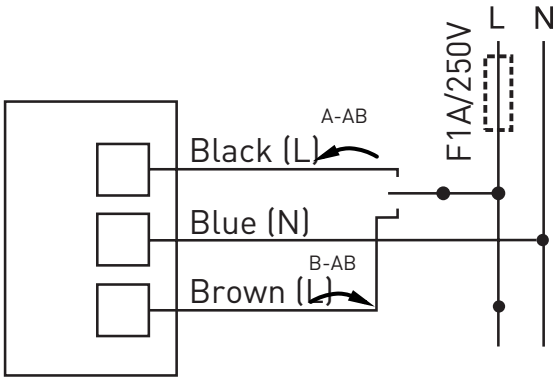
The zone valve is controlled by 3-point signal.

Assembly/disassembly of actuator on the ball valve is simple and secure, using the clip-system. The zone valve must not be installed with the actuator underneath the valve unit.

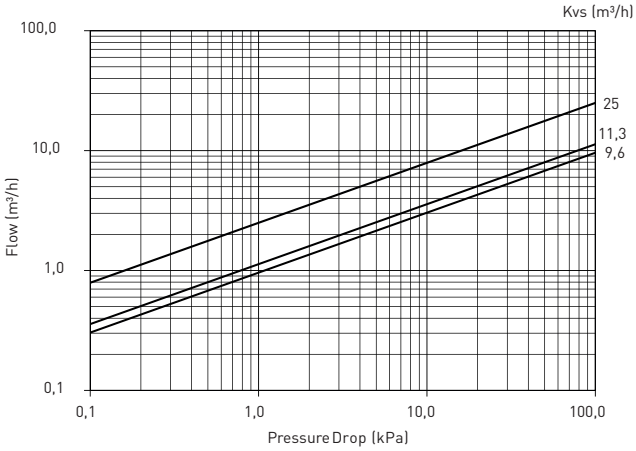
In case of a power failure, the valve stays in its current position. When the power is switched off, the valve can be manually set by the handle on the actuator.

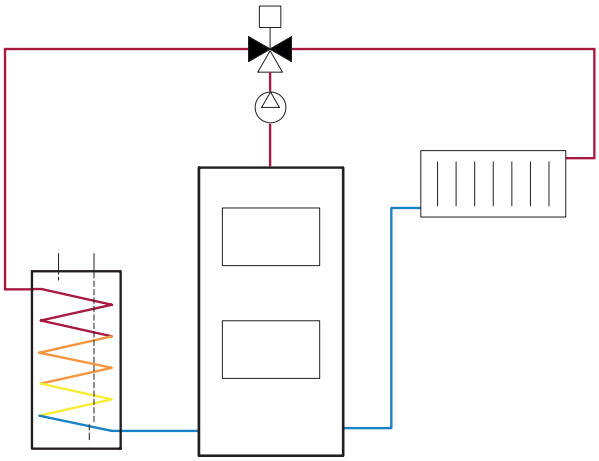
Please note that the actuator can be installed in only one position.

**WIRING DIAGRAM**

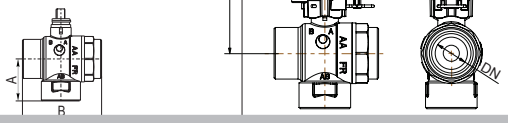



**CAPACITY DIAGRAM**



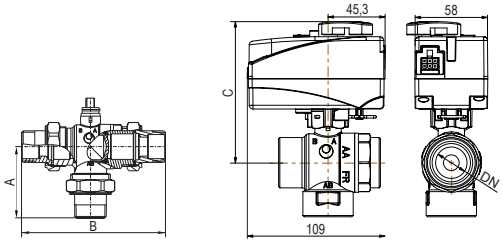



## LK 527 3W - Female Thread



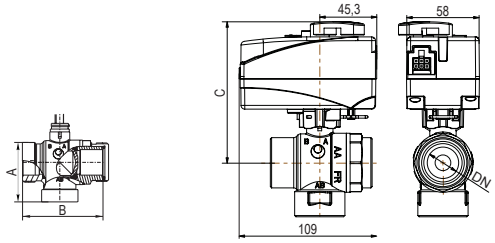

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 066252 | F ¾" | 9.6 | 40 | 68 | 104 | 0.8 |
| 066253 | F 1" | 11.3 | 43 | 81 | 107 | 1.0 |

## LK 527 3W - Male Thread



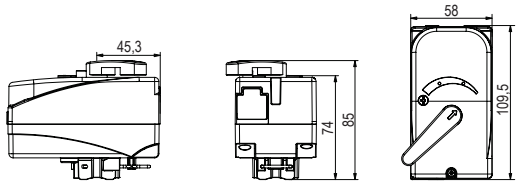

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 066257 | M 1½" with transition fitting M 1¼" | 25.0 | 89 | 165 | 134 | 2.1 |

## LK 527 3W - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 066259 | M 1¼" | 11.3 | 43 | 85 | 107 | 1.0 |
| 066260 | M 1½" | 25.0 | 52 | 90 | 134 | 1.3 |

## LK 527 - Actuator




| Article no. | Connection | Voltage | Torque | Operation time | Weight kg |
|---|---|---|---|---|---|
| 066284 | 3-point SPDT output, with cable 1 m | 230 V | 5 Nm | 20s / 90° | 0.4 |
| 066287 | 3-point SPDT output, with cable 1 m | 230 V | 5 Nm | 110s / 90° | 0.4 |

# Filling Valve

## LK 321 MultiFill® Solar

- Compact design
- Easy to install

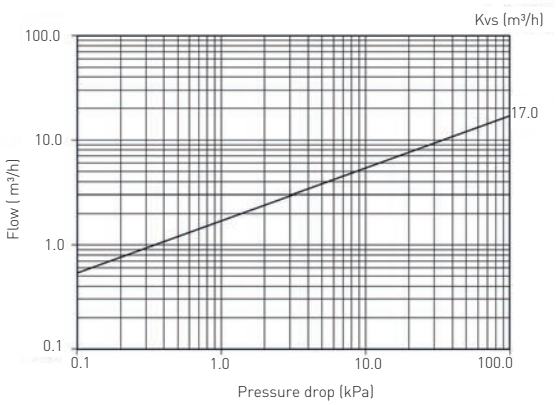
**TECHNICAL DATA**

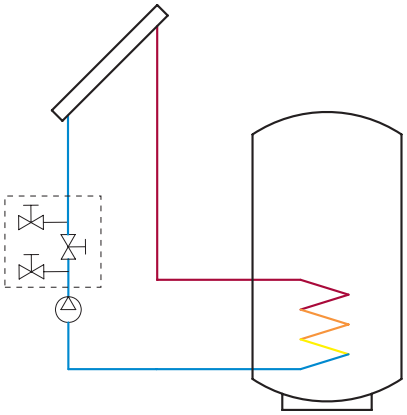
| | |
|---|---|
| Max. working pressure | 1,0 MPa (10 bar) |
| Working temperature | Min. -20 °C/Max. 120 °C (160 °C briefly) |
| Thread standard | G - male thread,ISO 228/1 |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 12165 CW617N |
| Material sealing | PTFE |

LK 321 MultiFill® is a compact combination valve for easy filling of solar systems. The valve's compact design makes it easy to install even in tight spaces.

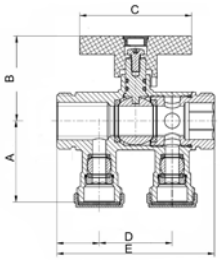
Two M 1" connections with surface for connection with flange, eg. 299189 see accessories. Two filling valves M ¾".

**CAPACITY DIAGRAM**



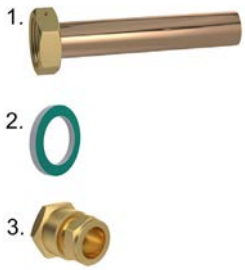



## LK 321 - Male thread



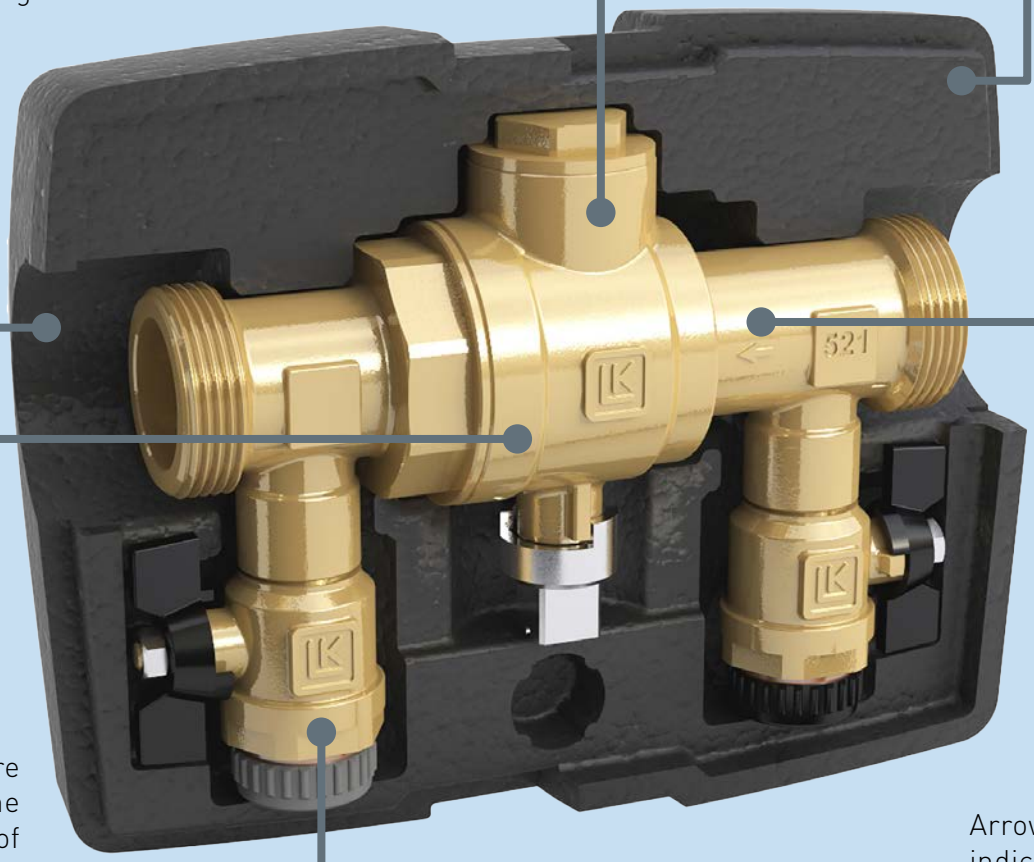

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 092320 | M 1" x M ¾" | 17.0 | 48 | 50 | 66 | 43 | 93 | 0.65 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 299189 | Flanged pipe - 22 mm, F 1", L=120 mm | 1 |
| 013035 | Gasket C4400 1" | 2 |
| 095410 | Compression fitting 22 mm x M 25 | 3 |
| 095411 | Compression fitting 18 mm x M 25 | 3 |

# LK 521 MultiFill®




Space-saving design suitable for tight spaces and various applications

Built-in filter shields against grit and contaminants

Insulation to prevent condensation and icing

Minimal pressure drop due to the placement of the filter in the ball, which saves energy

Integrated filter to prevent particles during filling

Arrows on the valve indicate flow direction for easy setup and upkeep

**LK 521 MultiFill®** simplifies refrigerant fluid filling for geothermal heat pump systems. Its built-in filter safeguards the evaporator against potential contaminants, while the compact design allows easy installation in tight spaces. Insulation protects against condensation and icing. This versatile valve can be used in various applications requiring filling and filtration.

# Filling Valve

## LK 521 MultiFill®

- Compact design
- Insulation protects against condensation and icing
- Minimal pressure drop due to the placement of the filter in the ball

**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. -20 °C/Max. 80 °C |
| Mesh opening filter | Main valve DN25, DN32: 0,6 mm²<br>Main valve DN50: 1,0 mm²<br>Fillingvalve DN25, DN32: 0,7 mm²<br>Fillingvalve DN50: 0,7 mm² |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Media 2 | Water - Glycol mixture max. 30% |
| Media 3 | Water - Ethanol mixture max. 30%<br>Working temperature: Max. 60 °C) |
| Material valve body | Brass EN 12165 CW617N |
| Material insulation | Expanded Polystyrene EPS |
| Material filter element | Main valve: Plastic, Stainless steel<br>Filling valve: Stainless steel |
| Material sealing | EPDM |

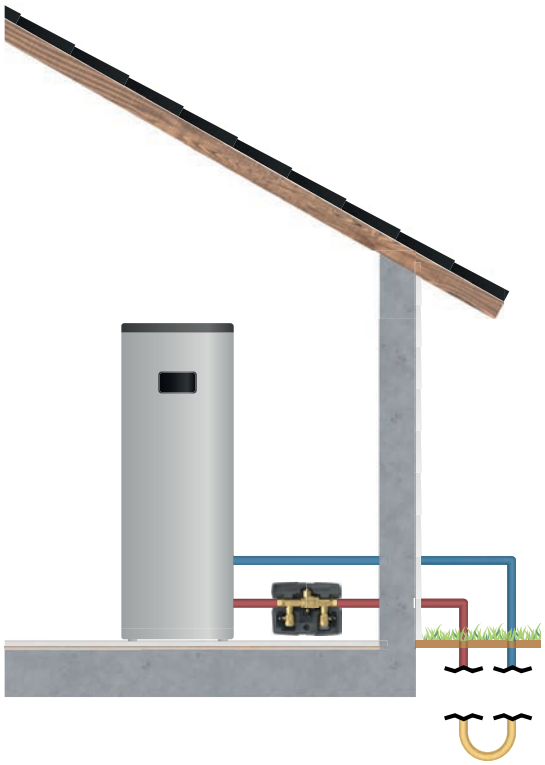
LK 521 MultiFill® is a combination valve for easy filling of refrigerant fluid into ground source heat systems. The valve has a filter to protect the evaporator against possible grit. Its compact construction allows it to be installed in tight spaces. The valve comes with an insulation to protect against condensation and possible icing. LK 521 MultiFill® can also be used in other applications where filling and filtration are required.

Arrows on the valve body indicate the direction of the flow. The enclosed insulation should be used. Apart from cleaning the filter no maintenance is required.

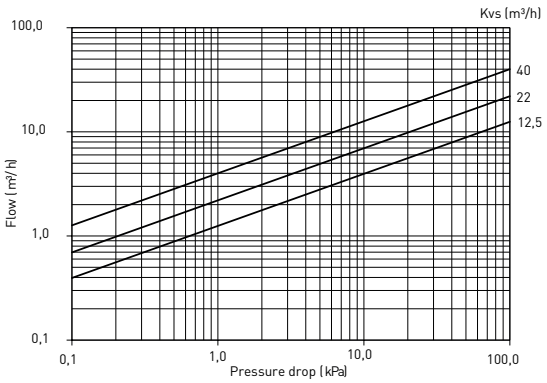
**LK 521 MultiFill® 25**
for heat pumps, max. 12 kW

**LK 521 MultiFill® 32**
for heat pumps, max. 30 kW

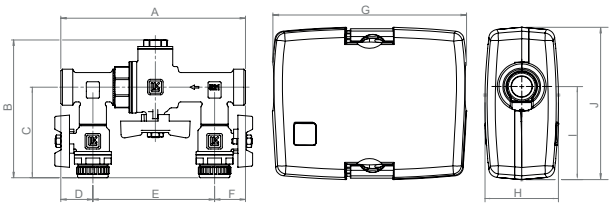
**LK 521 MultiFill® 50**
for heat pumps, max. 50 kW



**CAPACITY DIAGRAM**



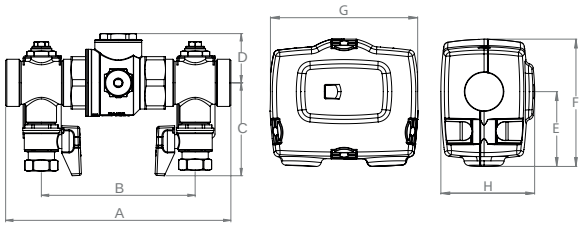
## LK 521 - Male thread




| Article no. | Dim. | Dim. 2 | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 091480 | M 1" | M ¾" | 12.5 | 170 | 127 | 83 | 29 | 108 | 29 | 218 | 83 |
| 091481 | M 1¼" | M ¾" | 22.0 | 173 | 136 | 87 | 29 | 115 | 29 | 218 | 83 |

Dimension 1 - Pipe connection to collector hose
Dimension 2 - Connection for filling of fluid
Dimensions according to dimensional drawings are guidance and not part of the specification

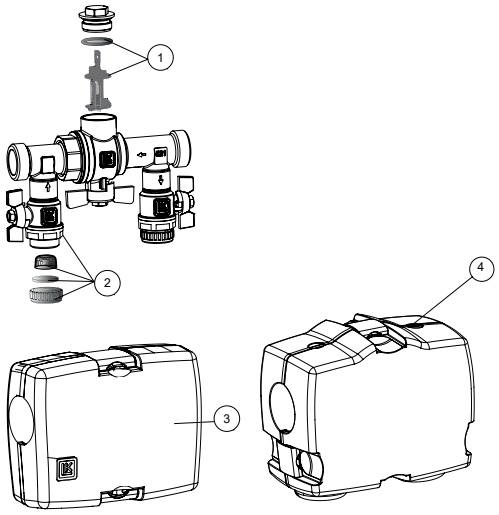
## LK 521 - Male thread




| Article no. | Dim. | Dim. 2 | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 091483 | M 2" | M 1" | 40.0 | 284 | 178 | 118 | 49 | 156 | 265 | 308 | 195 |

Dimension 1 - Pipe connection to collector hose
Dimension 2 - Connection for filling of fluid
Dimensions according to dimensional drawings are guidance and not part of the specification

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095070 | Filter and sealing DN 25 | 1 |
| 095071 | Filter and sealing DN 32 | 1 |
| 095073 | Cap, filter and sealing | 2 |
| 095072 | LK Insulation, 521 DN 25-32 | 3 |
| 187309 | LK Insulation, 521 DN 50 | 4 |

# Filling Valve

## LK 534 ThermoFill® EA

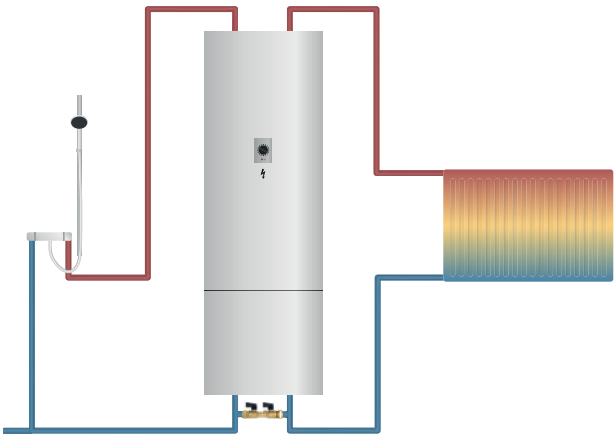
- Integrated ball valve and non-return valve
- Classified as type EA according to EN 1717

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Opening pressure check valve | 1 kPa (0,01 bar) |
| Working temperature | Min. 5 °C/Max. 90 °C |
| Thread standard | G - female thread, ISO 228/1 |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |
| Material check valve | POM |
| Standard | Check valve: Type EA according to EN 1717 |

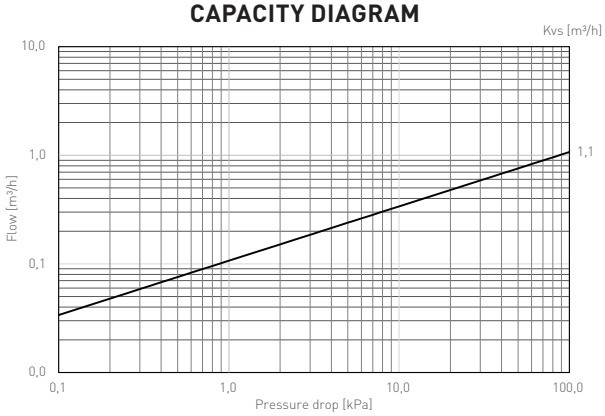
LK 534 ThermoFill® EA is a filling valve for heating systems. The valve has an integrated shut-off/check valve which ensures opening even at low pressure differences. The check valve is inspectionable and classified as a back flow preventer Type EA, fluid category 1-2, according to EN 1717.

By closing the first valve towards the tap water system and loosening the screw, the function of the check valve can be checked.

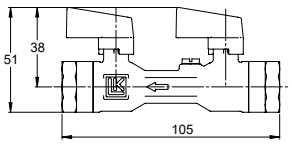
The arrow on the valve body indicates the direction of the flow.



**CAPACITY DIAGRAM**

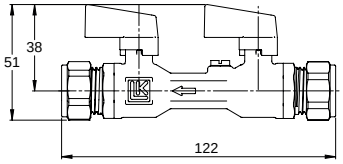



## LK 534 - Female thread




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 182786 | F ½" | 1.1 | 0.3 |

## LK 534 - Compression fitting




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 182787 | 15 mm | 1.1 | 0.3 |

# Filling Valve

## LK 538 ThermoFill® EA

- Integrated ball valve and non-return valve
- Classified as type EA according to EN 1717

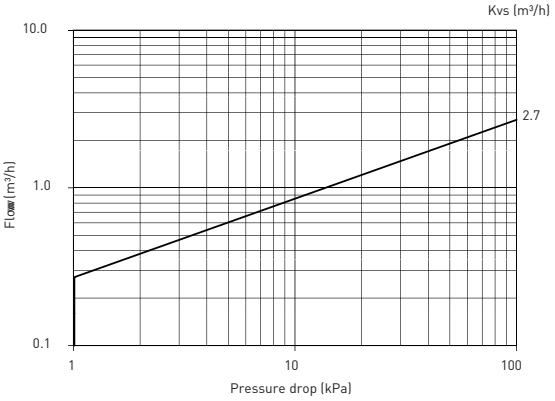
**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Opening pressure check valve | 1 kPa (0,01 bar) |
| Working temperature | Min. 5 °C/Max. 90 °C |
| Thread standard | G - male thread |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |
| Material check valve | POM |
| Standard | Check valve: Type EA according to EN 1717 |

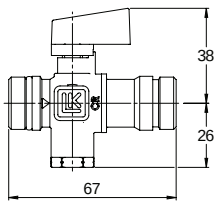
LK 538 ThermoFill® EA is a filling valve for heating systems. The valve has an integrated shut-off/check valve which ensures opening even at low pressure differences. The check valve is inspectionable and classified as a back flow preventer Type EA, fluid category 1-2, according to EN 1717.

The arrow on the valve body indicates the direction of the flow.

**CAPACITY DIAGRAM**

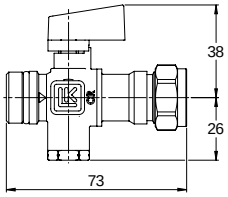



## LK 538 - Male thread



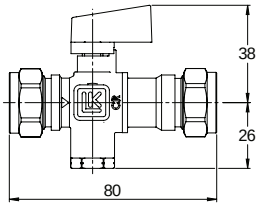

| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090268 | M ½" | 2.7 | 0.1 |

## LK 538 - Male thread / Compression fitting




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090269 | M ½" / 15 mm | 2.7 | 0.2 |

## LK 538 - Compression fitting




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090271 | 15 mm | 2.7 | 0.2 |

# Filling Valve

## LK 539 ThermoFill® EA

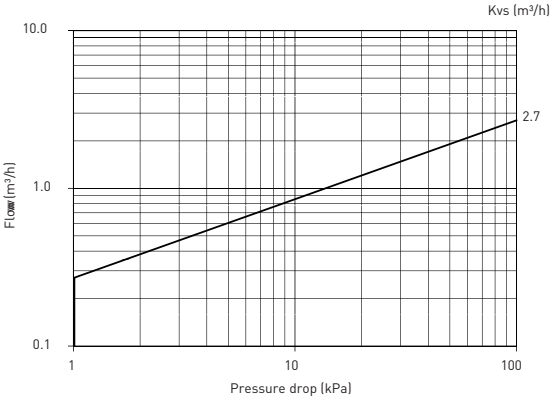
- Integrated ball valve and non-return valve
- Classified as type EA according to EN 1717

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Opening pressure check valve | 1 kPa (0,01 bar) |
| Working temperature | Min. 5 °C/Max. 90 °C |
| Thread standard | G - male thread |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |
| Material, check valve: | POM |
| Standard | Check valve: Type EA according to EN 1717 |

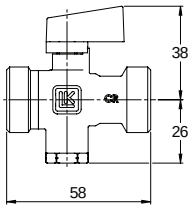
LK 539 ThermoFill® EA is a filling valve for heating systems. The valve has an integrated shut-off/check valve, which ensures opening even at low pressure differences. The check valve is inspectionable and classified as a back flow preventer Type EA, fluid category 1-2, according to EN 1717.

The arrow on the valve body indicates the direction of the flow.

**CAPACITY DIAGRAM**




## LK 539 - Male thread




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 068008 | M ¾" | 2.7 | 0.2 |

# Safety Relief Valve

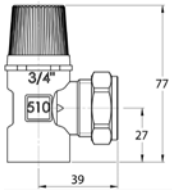
## LK 510/511/512 MultiSafe

- From 1.5 to 10 bar
- Protect your boiler against overpressure

| TECHNICAL DATA | |
|---|---|
| Working temperature | Min. -10 °C/Max. 110 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |
| Type approval certificate | CE - LK 511 and LK 512 are fitted with a CE-marked LK 510 valve with installed nipple. |

LK 510/511/512 MultiSafe is a safety relief valve for tap water installations, as well as heating systems with closed boiler system with a power of max.50 kW. The valve must not be used for steam. The outlet is fitted with compression fitting for simple installation of a discharge pipe.

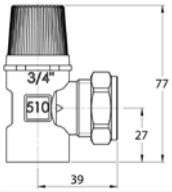
## LK 510 - Female thread / Compression fitting - Tap water




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090033 | F ¾" x 22 mm | 0.9 MPa | 6741 | 0.2 |
| 090034 | F ¾" x 22 mm | 1.0 MPa | 7107 | 0.2 |

According to EN 1491

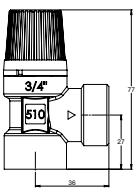
## LK 510 - Female thread / Compression fitting - Heating




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090030 | F ¾" x 22 mm | 0.15 MPa | 2962 | 0.2 |
| 090035 | F ¾" x 22 mm | 0.2 MPa | 3298 | 0.2 |
| 090031 | F ¾" x 22 mm | 0.25 MPa | 3602 | 0.2 |
| 090036 | F ¾" x 22 mm | 0.3 MPa | 3883 | 0.2 |

According to EN 1491

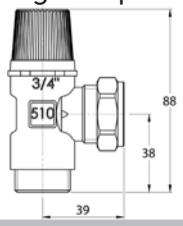
## LK 510 - Female thread - Heating




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 055505 | F ¾" | 0.15 MPa | 2962 | 0.2 |
| 055506 | F ¾" | 0.25 MPa | 3602 | 0.2 |

According to EN 1491

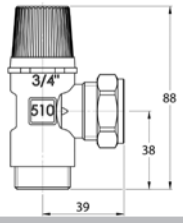
## LK 511 - Male thread / Compression fitting - Tap water




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090043 | M ¾" x 22 mm | 0.9 MPa | 6741 | 0.2 |
| 090044 | M ¾" x 22 mm | 1.0 MPa | 7107 | 0.2 |

According to EN 1491

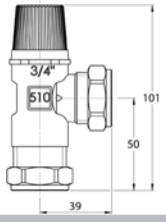
## LK 511 - Male thread / Compression fitting - Heating




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090040 | M ¾" x 22 mm | 0.15 MPa | 2962 | 0.2 |
| 090047 | M ¾" x 22 mm | 0.2 MPa | 3298 | 0.2 |
| 090041 | M ¾" x 22 mm | 0.25 MPa | 3602 | 0.2 |
| 090048 | M ¾" x 22 mm | 0.3 MPa | 3883 | 0.2 |

According to EN 1491

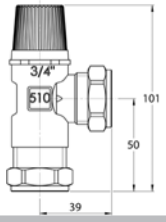
## LK 512 - Compression fitting - Tap water




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090053 | 22 mm | 0.9 MPa | 6741 | 0.3 |
| 090054 | 22 mm | 1.0 MPa | 7107 | 0.3 |

According to EN 1491

## LK 512 - Compression fitting - Heating




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090050 | 22 mm | 0.15 MPa | 2962 | 0.3 |
| 090051 | 22 mm | 0.25 MPa | 3602 | 0.3 |

According to EN 1491

# Safety Relief Valve

## LK 514 MultiSafe

- O-ring connection suitable for LK's range of valves
- From 1.5 to 10 bar
- Protect your boiler against overpressure

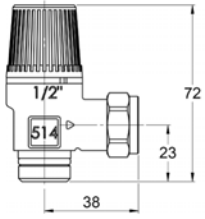
| TECHNICAL DATA | |
|---|---|
| Working temperature | Min. -10 °C/Max. 110 °C |
| Thread standard | G - male thread |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |
| Approvazione | CE |

LK 514 MultiSafe is a high lift, soft sealing safety relief valve for tap water installations as well as heating, recycling and cooling systems with thermal expansion only. The valve must not be used for steam. The outlet is fitted with compression fitting for simple installation of a discharge pipe.

Turn the knob counter-clockwise ¼ turn until a faint "click" is heard. Let the water flush through briefly, then turn another ¼ turn until a stronger "click" is heard and the valve closes.

This two-step opening function makes it possible to use the safety valve discharge pipe to drain e.g. a water heater.

## LK 514 Male thread / Compression fitting




| Article no. | Dim. | Opening pressure | Discharge capacity l/h | Weight kg |
|---|---|---|---|---|
| 090109 | M ½" x 15 mm | 0.15 MPa | 3420 | 0.1 |
| 090110 | M ½" x 15 mm | 0.25 MPa | 4159 | 0.1 |
| 090111 | M ½" x 15 mm | 0.3 MPa | 4484 | 0.1 |
| 090112 | M ½" x 15 mm | 0.4 MPa | 5180 | 0.1 |
| 090113 | M ½" x 15 mm | 0.6 MPa | 6350 | 0.1 |
| 090114 | M ½" x 15 mm | 0.7 MPa | 6860 | 0.1 |
| 090115 | M ½" x 15 mm | 0.9 MPa | 7782 | 0.1 |
| 090116 | M ½" x 15 mm | 1.0 MPa | 8204 | 0.1 |

According to EN 1491

# Valve Combination

## LK 548 AquaKit

- O-ring connection suitable for LK's range of valves
- Complete valve combination

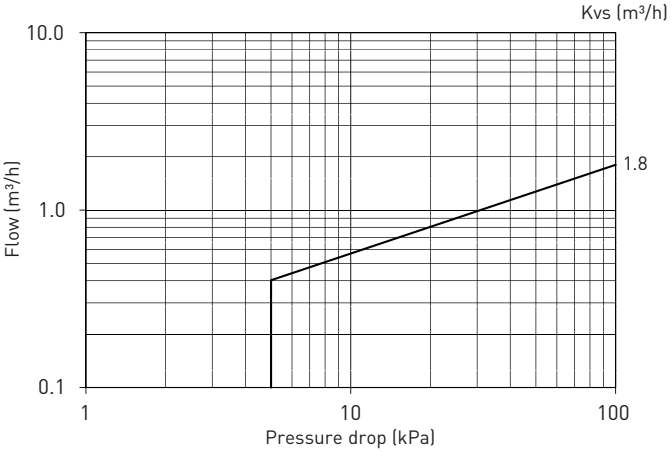
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Opening pressure check valve | 5 kPa (0,05 bar) |
| Working temperature | Min. 5 °C/Max. 90 °C |
| Operating temperature | Min. 38 °C/Max. 65 °C |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |

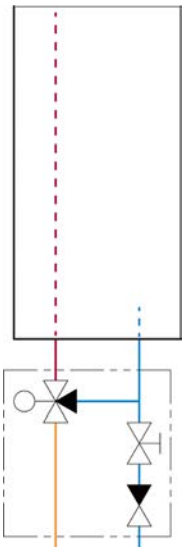
LK 548 is AquaKit a valve combination for water heating consisting of a shut-off/check valve and a thermostatic mixing valve. The shut-off valve closes the cold water inlet and has an integrated check valve preventing recirculation of warm water into the incoming cold water pipe. The mixing valve regulates the supply of cold water in order to achieve the desired temperature. The shut-off/check valve has two connections with female thread M ½" for fitting of a safety relief valve, vacuum breaker or filling valve.

Arrows on the valve body indicate the direction of the flow.
KV = incoming cold water
VV = incoming hot water
BV = outgoing warm water

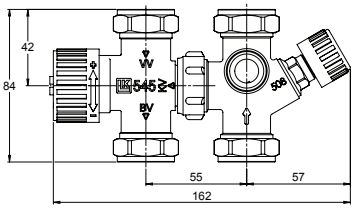
Female thread connections are designed for the LK Armatur O-ring seal system. Other components are fitted in the usual way. When fitting to a male thread connection, adapter LK 373 is used - see under Accessories.

**CAPACITY DIAGRAM**



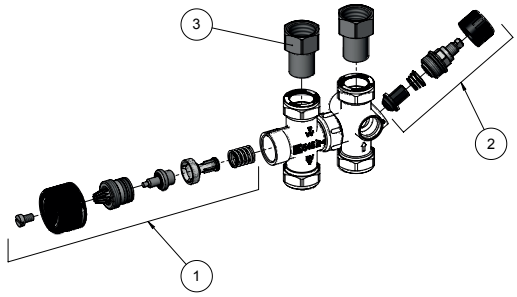



# LK 548 - Compression fitting




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090085 | 22 mm | 1.8 | 0.7 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 4920723 | LK 683 Repair kit, Mixing valve | 1 |
| 4311733 | LK 684 Repair kit, Shut-off/Check valve | 2 |
| 1898055 | Adapter LK 373 22 x M ¾" | 3 |

# Thermic Mixing Valve

## LK 550 AquaMix

- Temperature control
- DZR Brass

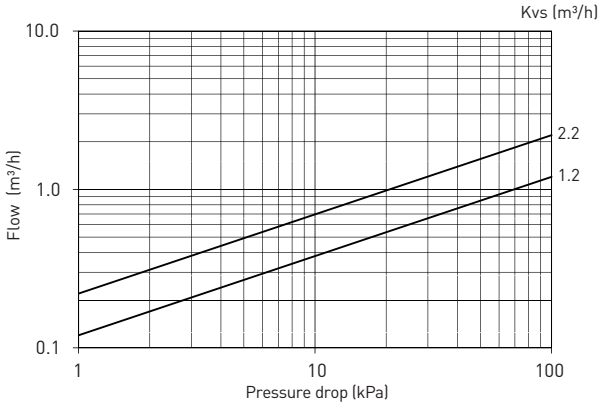
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 90 °C |
| Operating temperature | Min. 38 °C/Max. 65 °C |
| Thread standard | G - male thread |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material sealing | EPDM |

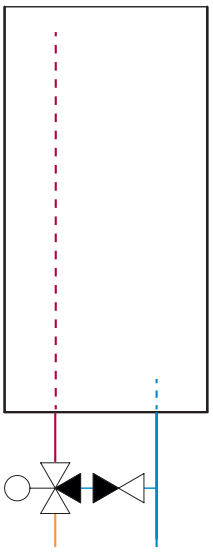
LK 550 AquaMix is a mixing valve for water heating with a thermostatic element that regulates the supply of cold water in order to achieve the desired temperature. Self-circulation is prevented with a check valve installed in the cold water supply - see under Accessories. Valves with male thread M ½" and 15 mm compression fitting have an airvent for simple draining of smaller water heaters.

Arrows on the valve body indicate the direction of the flow.
KV = incoming cold water
VV = incoming hot water
BV = outgoing warm water

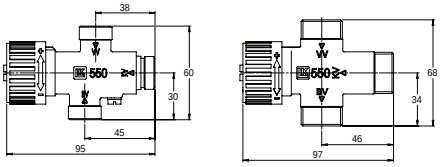
When fitting to a male thread connection adapter LK 373 is used - see under Accessories.

**CAPACITY DIAGRAM**



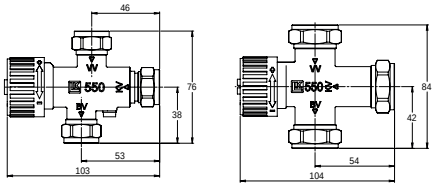



## LK 550 - Male thread



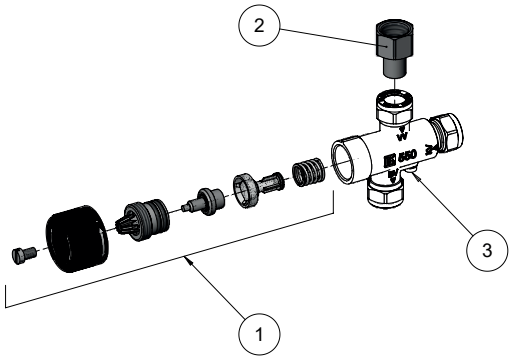

| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090206 | M ½" | 1.2 | 0.3 |
| 090063 | M ¾" | 2.2 | 0.4 |
| 090528 | M 1" | 2.2 | 0.5 |

## LK 550 - Compression fitting




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 090200 | 15 mm | 1.2 | 0.3 |
| 090205 | 22 mm | 2.2 | 0.4 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 055008 | Check valve NN ½" | - |
| 055009 | Check valve NN ¾" | - |
| 092105 | 528 Cartridge Check valve 15 mm | - |
| 092103 | 528 Cartridge Check valve 22 mm | - |
| 4920723 | LK 683 Repair kit, Mixing valve | 1 |
| 1898055 | Adapter LK 373 22 x M ¾" | 2 |
| 052002 | LK 373 Adapter 15 x M ½" | 2 |
| 187224 | Airscrew | 3 |

# Thermic Mixing Valve

## LK 551 HydroMix

- Anti-scald function
- Adjustable temperature

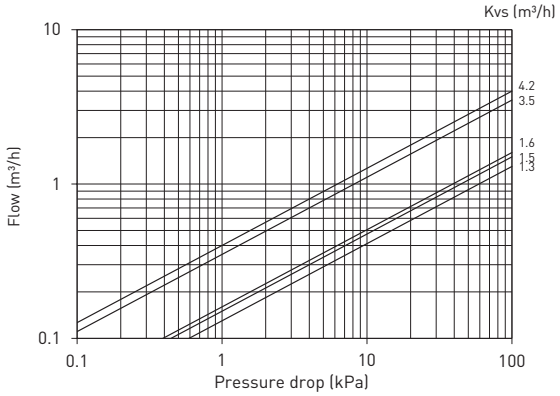
**TECHNICAL DATA**

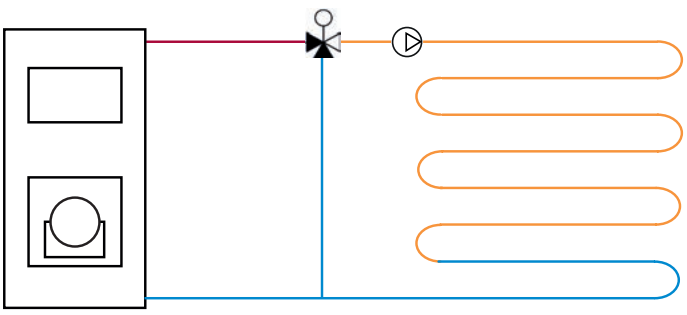
| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 65 °C<br>Min. 5 °C/Max. 95 °C |
| Operating temperature | Min. 10 °C/Max. 30 °C (Max. 65 °C)<br>Min. 25 °C/Max. 45 °C<br>Min. 35 °C/Max. 55 °C<br>Min. 35 °C/Max. 65 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Temperature stability | ±3 °C |

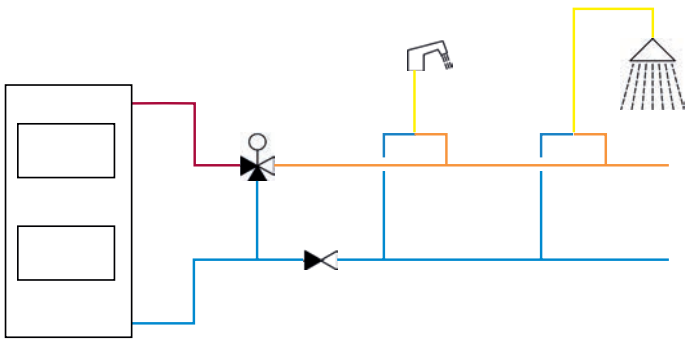
LK 551 HydroMix is an asymmetrical mixing valve for water heating and heating systems. The mixing valve has a thermostatic element that regulates the supply of cold as well as hot water in order to achieve the desired temperature. The valve has an anti-scald function that shuts off the incoming hot water flow in case of failure of cold water supply.

Arrows on the valve body indicate the direction of the flow.
C = incoming cold water
H = incoming hot water
M = outgoing mixed water

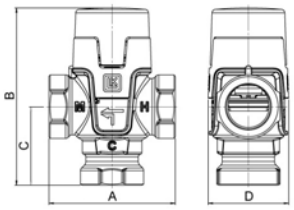
**CAPACITY DIAGRAM**



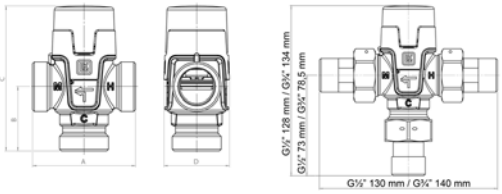


## LK 551 - Female thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 181616 | F ½" | 1.5 | 70 | 99 | 43.5 | 45 | 25 - 45 °C | 0.5 |
| 181617 | F ¾" | 1.6 | 70 | 99 | 43.5 | 45 | 25 - 45 °C | 0.5 |
| 181455 | F ½" | 1.5 | 70 | 99 | 43.5 | 45 | 35 - 65 °C | 0.5 |
| 181486 | F ¾" | 1.6 | 70 | 99 | 43.5 | 45 | 35 - 65 °C | 0.5 |
| 182203 | F 1" | 3.5 | 84 | 121 | 62 | 55 | 10 - 30 °C | 0.9 |
| 182204 | F 1" | 4.2 | 84 | 121 | 62 | 55 | 25 - 45 °C | 0.9 |
| 182205 | F 1 " | 3.5 | 84 | 121 | 62 | 55 | 35 - 65 °C | 0.9 |

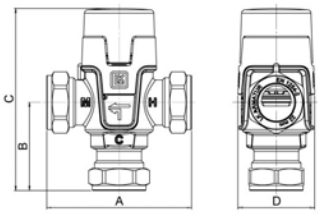
## LK 551 - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 181618 | M ½" | 1.3 | 70 | 42.5 | 99 | 45 | 25 - 45 °C | 0.4 |
| 181619 | M ¾" | 1.5 | 70 | 43.5 | 99 | 45 | 25 - 45 °C | 0.5 |
| 181620 | M 1" | 1.6 | 70 | 43.5 | 99 | 45 | 25 - 45 °C | 0.5 |
| 181452 | M ½" | 1.3 | 70 | 42.5 | 99 | 45 | 35 - 65 °C | 0.4 |
| 181453 | M ¾" | 1.5 | 70 | 43.5 | 99 | 45 | 35 - 65 °C | 0.5 |
| 181454 | M 1" | 1.6 | 70 | 43.5 | 99 | 45 | 35 - 65 °C | 0.5 |
| 182736 | M 1" | 1.6 | 70 | 43.5 | 99 | 45 | 35 - 65 °C *, WRAS | 0.5 |
| 182197 | M 1" | 3.5 | 84 | 62 | 121 | 55 | 10 - 30 °C | 0.7 |
| 182198 | M 1" | 3.5 | 84 | 62 | 121 | 55 | 25 - 45 °C | 0.7 |
| 182199 | M 1" | 3.5 | 84 | 62 | 121 | 55 | 35 - 65 °C | 0.7 |
| 182200 | M 1¼" | 3.5 | 84 | 62 | 121 | 55 | 10 - 30 °C | 0.8 |
| 182201 | M 1¼" | 4.2 | 84 | 62 | 121 | 55 | 25 - 45 °C | 0.8 |
| 182202 | M 1¼" | 3.5 | 84 | 62 | 121 | 55 | 35 - 65 °C | 0.8 |

* Material, valve body: EN 12165 CW625N

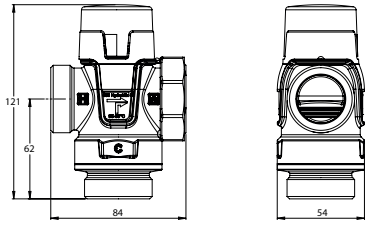
## LK 551 - Compression fitting




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 181621 | 15 mm | 1.3 | 86.5 | 51 | 106 | 45 | 25 - 45 °C | 0.4 |
| 181622 | 22 mm | 1.6 | 85 | 52 | 106 | 45 | 25 - 45 °C | 0.4 |
| 181523 | 15 mm | 1.3 | 86.5 | 51 | 106 | 45 | 35 - 55 °C | 0.5 |
| 181487 | 22 mm | 1.6 | 85 | 52 | 106 | 45 | 35 - 55 °C | 0.6 |
| 181456 | 15 mm | 1.3 | 86.5 | 51 | 106 | 45 | 35 - 65 °C | 0.5 |
| 182738 | 15 mm | 1.3 | 86.5 | 51 | 106 | 45 | 35 - 65 °C *, WRAS | 0.5 |
| 181457 | 22 mm | 1.6 | 85 | 52 | 106 | 45 | 35 - 65 °C | 0.6 |
| 182737 | 22 mm | 1.6 | 85 | 52 | 106 | 45 | 35 - 65 °C *, WRAS | 0.6 |
| 182206 | 28 mm | 3.5 | 110 | 80 | 138 | 55 | 10 - 30 °C * | 0.9 |
| 182207 | 28 mm | 4.2 | 110 | 80 | 138 | 55 | 25 - 45 °C * | 0.9 |
| 182208 | 28 mm | 3.5 | 110 | 80 | 138 | 55 | 35 - 65 °C * | 0.9 |

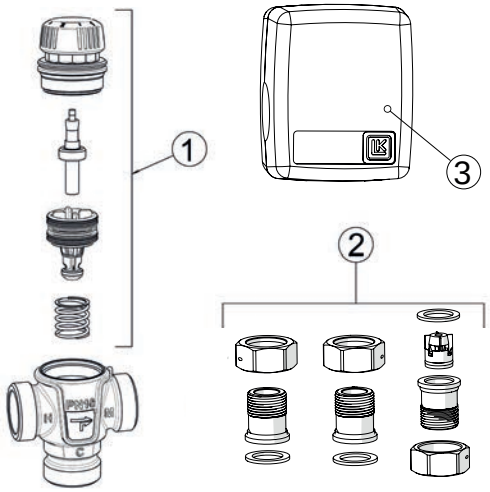
* Material, valve body: EN 12165 CW625N

## LK 551 - Rotating nut




| Article no. | Dim. | Dim. 2 | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182431 | M 1¼" | 1½" Rotating nut | 3.5 | 84 | 62 | 121 | 55 | 25 - 45 °C | 0.9 |
| 182431 | M 1¼" | 1½" Rotating nut | 3.5 | 84 | 62 | 121 | 55 | 50 - 70 °C | 0.9 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095234 | Repair kit 551, 35 - 65 °C (Kvs 1.6) | 1 |
| 095235 | Repair kit 551, 25 - 45 °C | 1 |
| 095236 | Repair kit 551, 35 - 55°C | 1 |
| 095348 | Repair kit 551, 10 - 30 °C (Kvs 3.2-4.2) | 1 |
| 095349 | Repair kit 551, 25 - 45 °C, Kvs 3.2-4.2 | 1 |
| 095350 | Repair kit 551, 35 - 65 °C, Kvs 3.2-4.2 | 1 |
| 092052 | Connection kit M ¾" x 1" with rotating nut, gaskets, 1 check valve | 2 |
| 092053 | Connection kit M ¾" x 1" with rotating nut, gaskets, 2 check valves | 2 |
| 092054 | Connection kit M ½" x ¾" with rotating nut, gaskets, 1 check valve | 2 |
| 092055 | Connection kit M ½" x ¾" with rotating nut, gaskets, 2 check valves | 2 |
| 092333 | Connection kit M 1" x 1¼" with rotating nut, gaskets, 1 check valve | 2 |
| 092334 | Connection kit M 1" x 1¼" with rotating nut, gaskets, 2 check valves | 2 |
| 187304 | LK Insulation, 551 (Kvs 1.3-1.6) | 3 |
| 187310 | LK Insulation, 551 (Kvs 3.2-4.2) / 552 | 3 |

# Thermic Mixing valve

## LK 551 HydroMix F

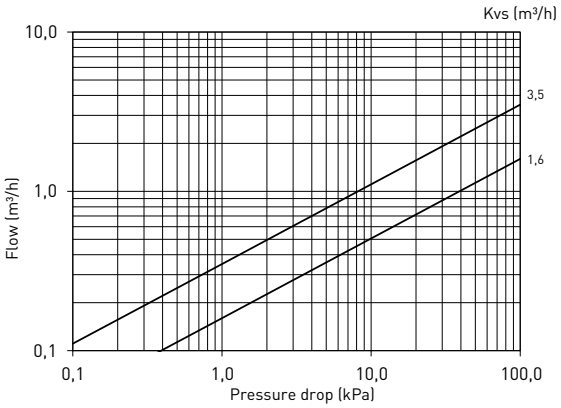
- Adjustable diverting temperature

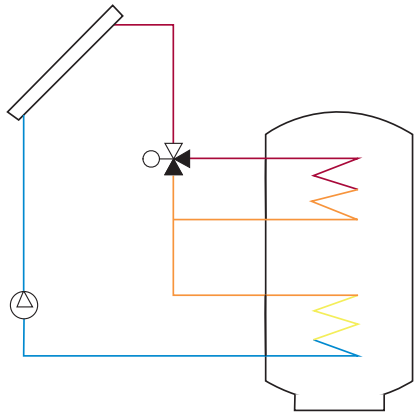
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Diverting temperature | Min. 42 °C/Max. 52 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Temperature stability | ±3 °C |

The LK 551 HydroMix F is a 3-way diverting valve.
Once the media reaches chosen temperature it will be redirected to port C. Below chosen temperature it will be redirected to port H.

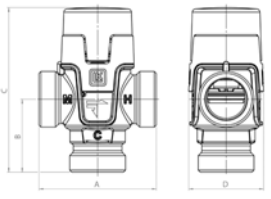
Arrows on the valve body indicate the direction of the flow.
M = incoming water
C = outgoing hot water
H = outgoing cold water

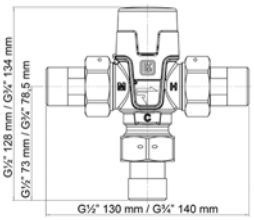
**CAPACITY DIAGRAM**



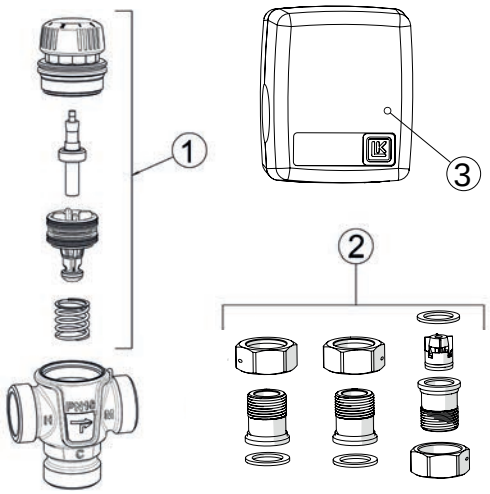
## LK 551 F - Male thread






| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182143 | M 1" | 1.6 | 70 | 43.5 | 99 | 45 | 42 - 52 °C | 0.5 |
| 182428 | M 1" | 3.5 | 84 | 62 | 121 | 55 | 42 - 52 °C | 0.7 |

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095075 | Repair kit 551 F, 42 - 52 °C. Kvs 1.6 | 1 |
| 095444 | Repair kit 551 F, 42 - 52 °C. Kvs 3,5 | 1 |
| 092052 | Connection kit M ¾" x 1" with rotating nut, gaskets, 1 check valve | 2 |
| 092053 | Connection kit M ¾" x 1" with rotating nut, gaskets, 2 check valves | 2 |
| 187304 | LK Insulation, 551 (Kvs 1.3-1.6) | 3 |
| 187310 | LK Insulation, 551 (Kvs 3.2-4.2) / 552 | 3 |

# Valve Combination

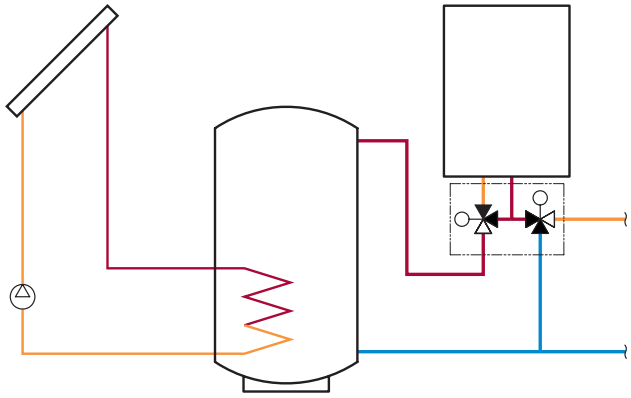
## LK 551 HydroKit Solar

- Simple installation
- Plug and play
- Scald protection

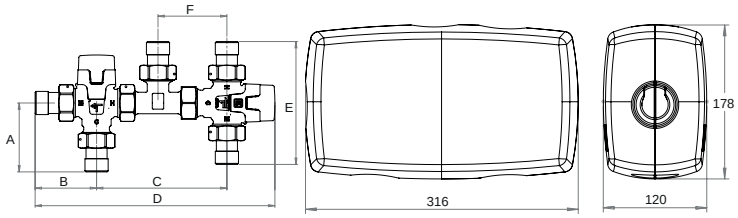
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Diverting temperature | Min. 42 °C/Max. 52 °C |
| Operating temperature | Min. 35 °C/Max. 65 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Temperature stability | ±3 °C |

LK 551 HydroKit Solar is a valve combination, designed to energy optimize water heating from two different heat sources. In order to maintain the set water temperature, the warm water from one heat source is mixed and led directly to the mixed water outlet or if needed diverted to an other heat source for further heating.

LK 551 HydroKit Solar has two thermic valves; one diverting valve and one mixing valve with anti-scald function. The warm water temperature, for the mixing valve, is adjustable within the range of 35 °C to 65 °C and for the diverting valve the temperature is adjustable within the range of 42 °C to 52 °C.



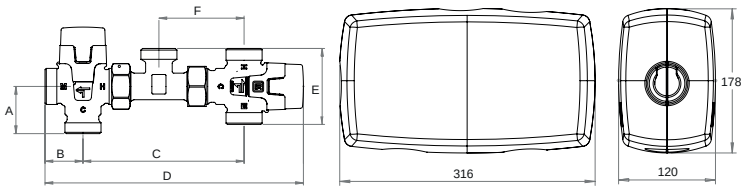
## LK 551 HydroKit Solar - with connection kit




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 181588 | M ¾" | 1.6 | 79 | 70 | 149 | 273 | 140 | 79 | | 1.6 |
| 182292 | M ¾" | 1.6 | 79 | 70 | 149 | 55 | 140 | 79 | Insulation included | 1.7 |
| 182782 | M ¾" | 2.5 | 97 | 77 | 149 | 280 | 140 | 79 | | 1.7 |
| 182294 | M ¾" | 2.5 | 97 | 77 | 149 | 280 | 140 | 79 | Insulation included | 1.7 |
| 182783 | M ¾" | 3.5 | 97 | 77 | 175 | 310 | 154 | 100 | | 2.5 |
| 182674 | M ¾" | 3.5 | 97 | 77 | 175 | 310 | 154 | 100 | Insulation included | 2.5 |

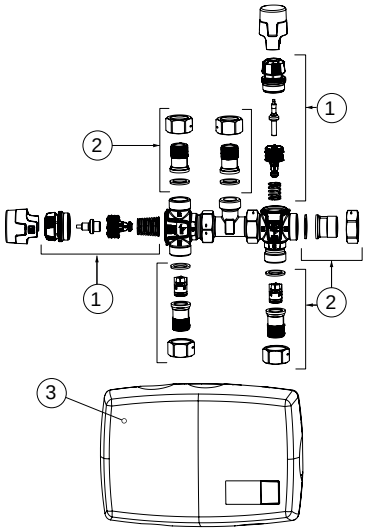
Connection kit included: contains nuts, gaskets, fittings (5 pcs of each) check valves (2 pcs).

# LK 551 HydroKit Solar - Male thread



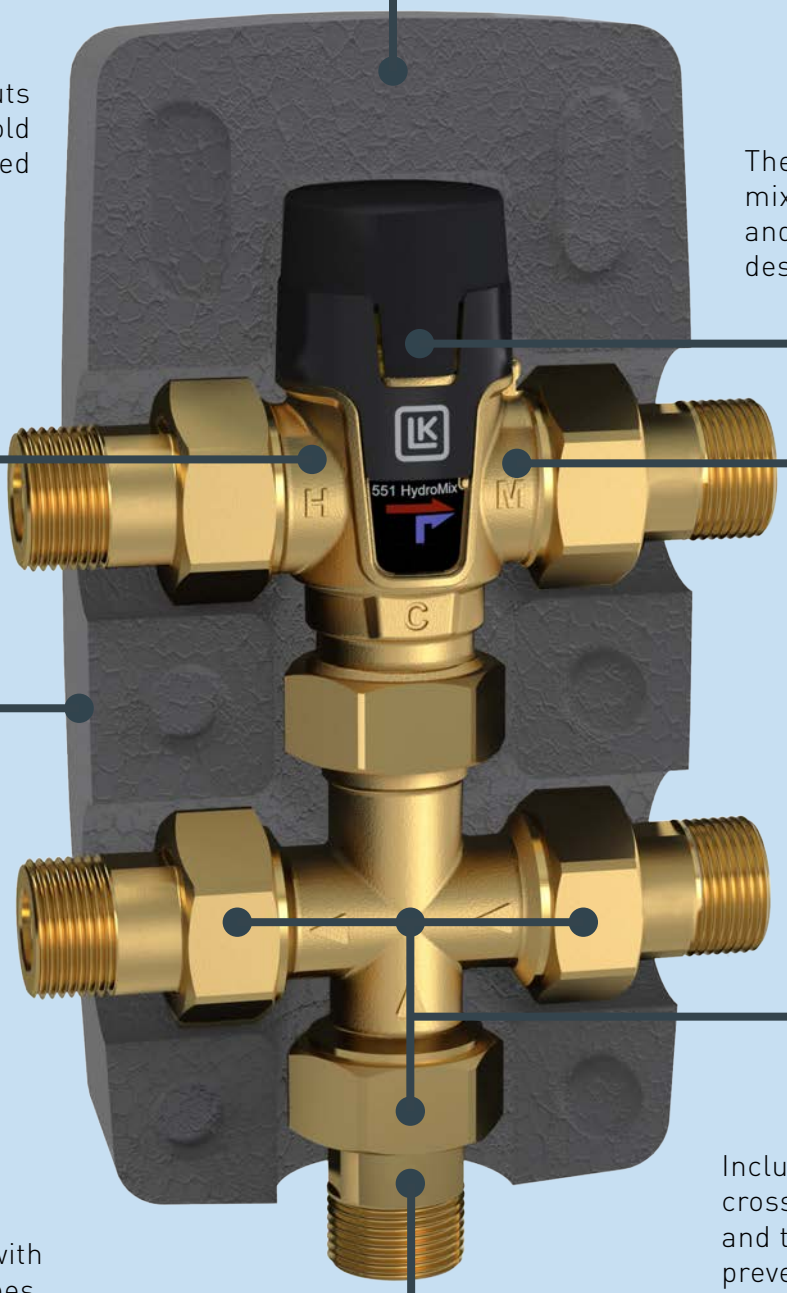

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 181690 | M 1" | 1.6 | 44 | 35 | 149 | 238 | 70 | 79 | | 1.6 |
| 182293 | M 1" | 1.6 | 44 | 35 | 149 | 238 | 70 | 79 | Insulation included | 1.7 |
| 182784 | M 1" | 2.5 | 62 | 42 | 149 | 245 | 70 | 79 | | 1.7 |
| 182295 | M 1" | 2.5 | 62 | 42 | 149 | 245 | 70 | 79 | Insulation included | 1.7 |
| 182785 | M 1" | 3.5 | 62 | 42 | 174 | 269 | 84 | 97 | | 1.9 |
| 182427 | M 1" | 3.5 | 62 | 42 | 174 | 269 | 84 | 97 | Insulation included | 1.9 |

## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095234 | Repair kit 551, 35 - 65 °C (Kvs 1.6) | 1 |
| 095075 | Repair kit 551 F, 42 - 52 °C. Kvs 1.6 | 1 |
| 095350 | Repair kit 551, 35 - 65 °C, Kvs 3.2-4.2 | 1 |
| 095444 | Repair kit 551 F, 42 - 52 °C. Kvs 3,5 | 1 |
| 095389 | Connection kit M ¾" x 1" with rotating nut, gaskets, 2 check valves | 2 |
| 095390 | LK Insulation (Kvs 1.6 - 2.5) | 3 |
| 095459 | LK Insulation (Kvs 3.5) | 3 |

# LK 551 HydroKit HWC




Compact design for versatile and hassle-free installation

Anti-scald function shuts off hot water if cold supply is interrupted

The thermostat-equipped mixing valve regulates hot and cold water to your desired temperature

Stable, two-piece insulation

Includes a mixing valve, cross, connection kit, and three check valves to prevent self circulation

Ideal for buildings with long water pipes, ensuring hot water reaches all areas quickly

Experience instant hot water with **LK 551 HydroKit HWC**, even in buildings with lengthy water pipes. This compact unit includes a mixing valve, cross, connection kit, and three check valves for seamless hot water circulation. The thermostat-controlled mixing valve blends cold and hot water for an improved hot water experience, with added safety from the anti-scald feature.

# Hot Water Circulation Unit

## LK 551 HydroKit HWC

- Direct hot water
- Plug and play
- Scald protection

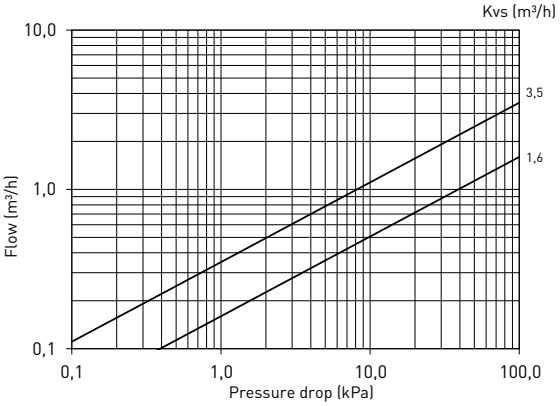
**TECHNICAL DATA**

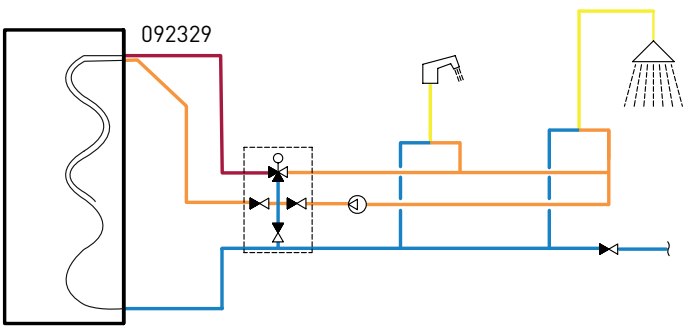
| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Operating temperature | Min. 35 °C/Max. 65 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N,DZR<br>Brass EN 12165 CW625N |
| Temperature stability | ±3 °C |

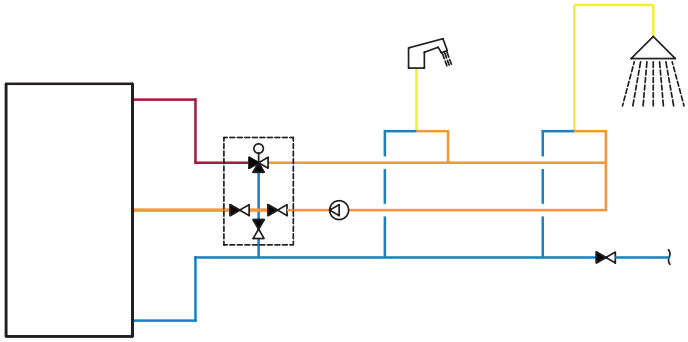
LK 551 HydroKit HWC is a compact unit for hot water circulation. Hot water circulation offers instantly available hot water at a tap, so you don´t have to wait on hot water. Hot water circulation is especially useful in buildings with long water pipes.

LK 551 HydroKit HWC consists of a mixing valve, cross, connection kit and 3 check valves, to prevent self circulation. The mixing valve has a thermostat that regulates the supply of both cold and hot water to the desired temperature. The valve has an anti-scald function that closes for incoming hot water in case the cold water supply ends.

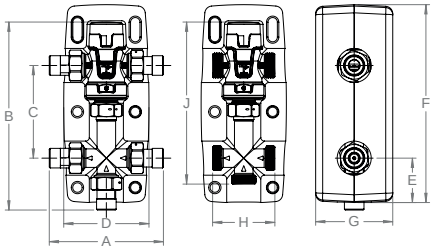
**CAPACITY DIAGRAM**



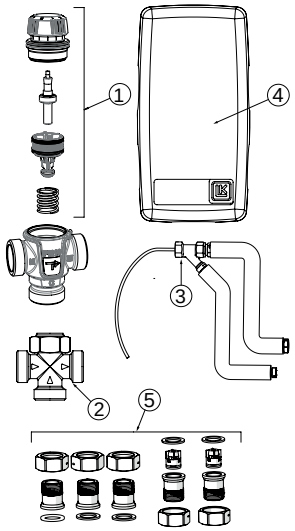
# LK 551 HydroKit HWC - with connection kit




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | J mm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 091782 | M ¾" | 1.6 | 140 | 205 | 81 | 115 | 60 | 225 | 104 | 70 | 170 |
| 182430 | M ¾" | 3.5 | 154 | 250 | 125 | 120 | 70 | 270 | 110 | 84 | 217 |

* Material, valve body: EN 12165 CW617N

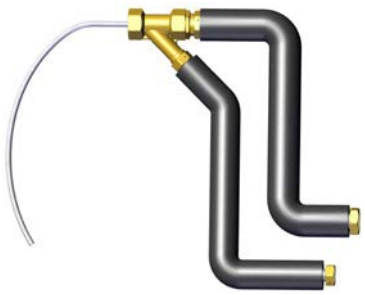
## SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095234 | Repair kit 551, 35 - 65 °C (Kvs 1.6) | 1 |
| 095350 | Repair kit 551, 35 - 65 °C, Kvs 3.2-4.2 | 1 |
| 092325 | Fitting | 2 |
| 092329 | LK CirculationKit HWC, Kvs 1.6 | 3 |
| 092357 | LK CirculationKit HWC, Kvs 3,5 | 3 |
| 187305 | LK Insulation HWC (Kvs 1.6) | 4 |
| 095460 | LK Insulation HWC (Kvs 3.5) | 4 |
| 095388 | Connection kit M ¾" x 1" with rotating nut, gaskets, 2 check valves | 5 |

# Circulation Kit

## LK 551 HWC CirculationKit

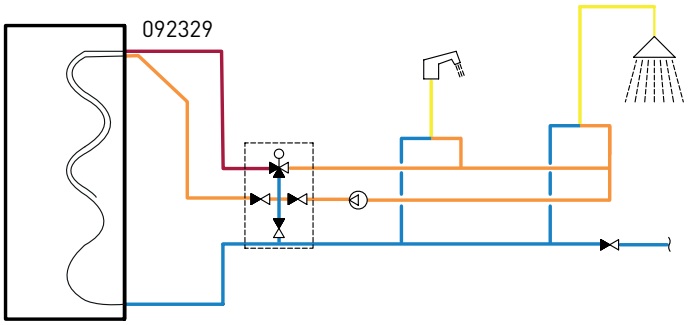


| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 0.6 MPa (6 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Material Pex | PE-Xc - PE-HD without EVOH Barrier |
| Material T-pipe | Cuphin |
| Material pipe | Stainless steel EN 1008-3-14404 (AISI316L) |

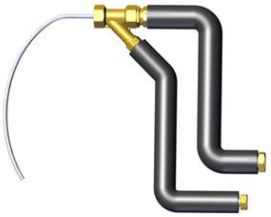
LK 551 HWC CirculationKit is an accessory for LK 551 HydroKit HWC. The accessory is installed when there is no connection for recirculated water in the tank.

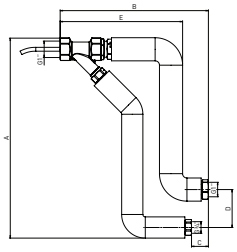
It is installed on the hot water connection.
Using a pipe-in-pipe solution with a 1.5-metre Pex pipe, the return of recirculated water can be adjusted to a correct level to prevent the stratification in the tank from being destroyed.

Supplied with 2x insulated stainless steel pipes, valve and Pex pipe 8x1 length 1.5m.



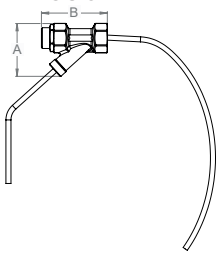

## LK 551 HWC CirculationKit - Female thread





| Article no. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Weight kg |
|---|---|---|---|---|---|---|---|
| 092329 | 1.6 | 415 | 308 | 35 | 79 | 254 | 2.1 |
| 092357 | 3.5 | 415 | 308 | 35 | 125 | 254 | 2.6 |

## LK 551 HWC CirculationKit - Female thread





| Article no. | Dim. | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 095487 | M 1" x F 1" x M ¾" | 85 | 106 | 41 | 0.6 |

# Mixing Valve

## LK 552 HydroMix

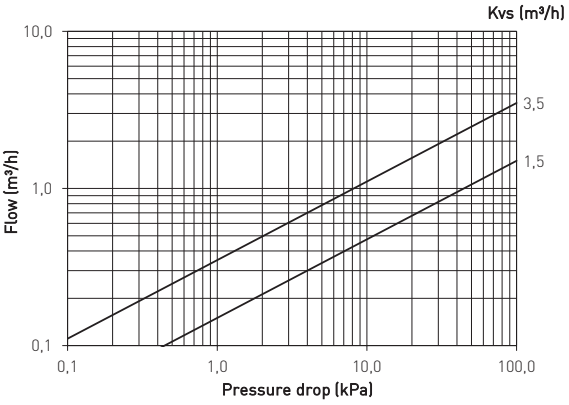
- Scald protection
- Symmetrical flow
- Adjustable temperature

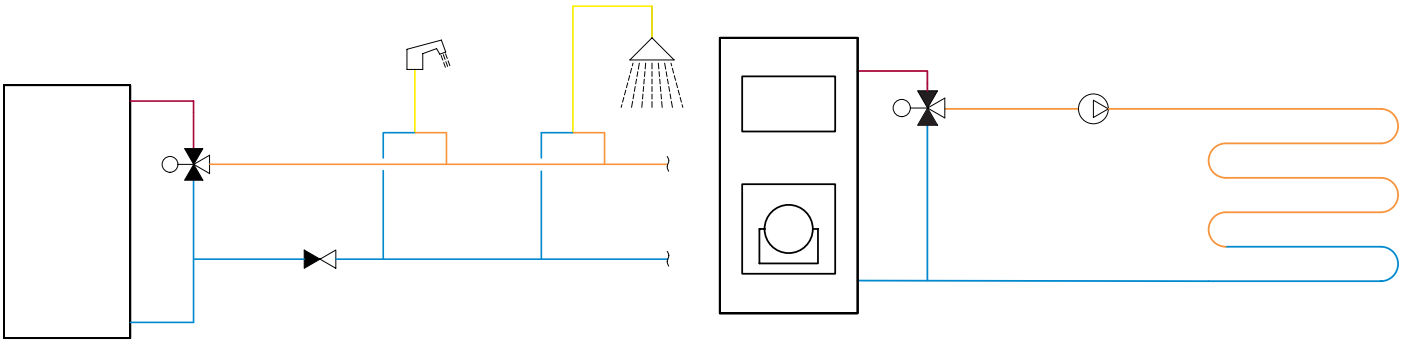
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 95 °C |
| Operating temperature | Min. 25 °C/Max. 45 °C<br>Min. 35 °C/Max. 65 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Temperature stability | ±3 °C |

LK 552 HydroMix is a mixing valve for water heating and heating systems. The mixing valve has a thermostatic element that regulates the supply of cold as well as hot water in order to achieve the desired temperature. The valve has an anti-scald function that shuts off the incoming hot water flow in case of failure of cold water supply.

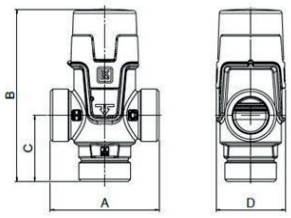
Arrows on the valve body indicate the direction of the flow.
C = incoming cold water
H = incoming hot water
M = outgoing mixed water

**CAPACITY DIAGRAM**



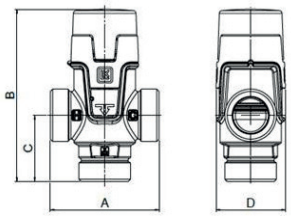



## LK 552 - Female thread



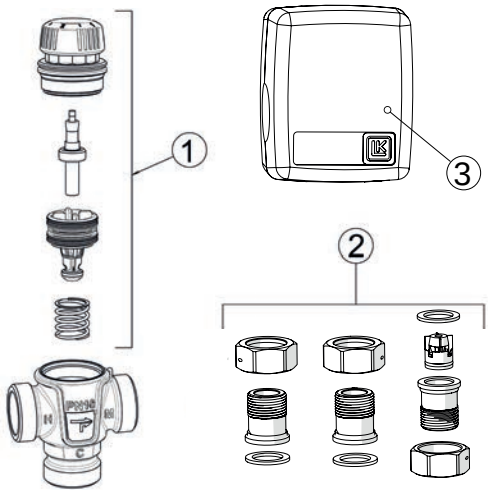

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182234 | F ¾" | 1.5 | 70 | 110 | 42 | 45 | 35 - 65 °C | 0.6 |
| 182237 | F ¾" | 1.5 | 70 | 110 | 42 | 45 | 25 - 45 °C | 0.6 |
| 182256 | F 1" | 3.5 | 84 | 122 | 50 | 52 | 35 - 65 °C | 0.9 |
| 182260 | F 1 " | 3.5 | 84 | 122 | 50 | 52 | 25 - 45 °C | 0.9 |

## LK 552 - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182235 | M ¾" | 1.5 | 70 | 110 | 42 | 45 | 35 - 65 °C | 0.5 |
| 182236 | M 1" | 1.5 | 70 | 110 | 42 | 45 | 35 - 65 °C | 0.6 |
| 182238 | M ¾" | 1.5 | 70 | 110 | 42 | 45 | 25 - 45 °C | 0.5 |
| 182239 | M 1" | 1.5 | 70 | 110 | 42 | 45 | 25 - 45 °C | 0.6 |
| 182257 | M 1" | 3.5 | 84 | 122 | 50 | 52 | 35 - 65 °C | 0.7 |
| 182258 | M 1¼" | 3.5 | 84 | 122 | 50 | 52 | 35 - 65 °C | 0.8 |
| 182261 | M 1" | 3.5 | 84 | 122 | 50 | 52 | 25 - 45 °C | 0.7 |
| 182262 | M 1¼" | 3.5 | 84 | 122 | 50 | 52 | 25 - 45 °C | 0.8 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095360 | Repair kit 552, 25 - 45 °C | 1 |
| 095361 | Repair kit 552, 35 - 65 °C | 1 |
| 095362 | Repair kit 552, 25 - 45 °C (Kvs 3.5) | 1 |
| 095363 | Repair kit 552, 35 - 65 °C (Kvs 3.5) | 1 |
| 092052 | Connection kit M ¾" x 1" with rotating nut, gaskets, 1 check valve | 2 |
| 092053 | Connection kit M ¾" x 1" with rotating nut, gaskets, 2 check valves | 2 |
| 092333 | Connection kit M 1" x 1¼" with rotating nut, gaskets, 1 check valve | 2 |
| 092334 | Connection kit M 1" x 1¼" with rotating nut, gaskets, 2 check valves | 2 |
| 187310 | LK Insulation, 551 (Kvs 3.2-4.2) / 552 | 3 |

# Shunt Group

## LK 419 Manifold Shunt

- Suitable for underfloor heating areas up to 200 m²
- Thermostat setting of supply temperature
- Choose between right and left installation

**TECHNICAL DATA**

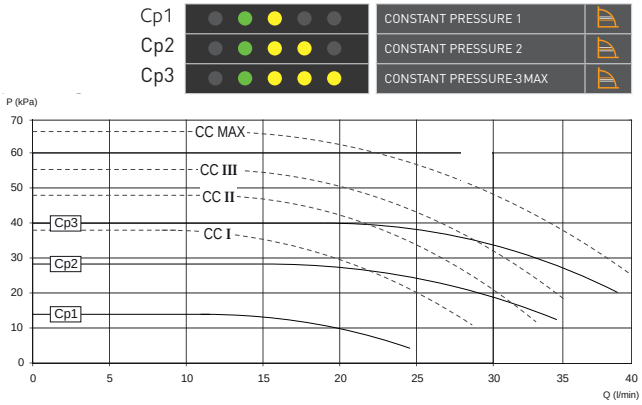
| | |
|---|---|
| Voltage | 230 VAC 50/60 Hz |
| Power consumption | 10-75 W, depending on pump speed |
| Max. working pressure | 1.0 MPa |
| Working temperature | Min. 5 °C /Max. 95 °C |
| Media | Water - Glycol mixture max. 50% Ethanol mixture max. 30% |
| Circulating pump | Grundfos UPM3 AUTO 15-70 |
| Material valve body | Brass EN 12165 CW617N |
| Material supply pipe | Stainless steel EN 1.4404 |

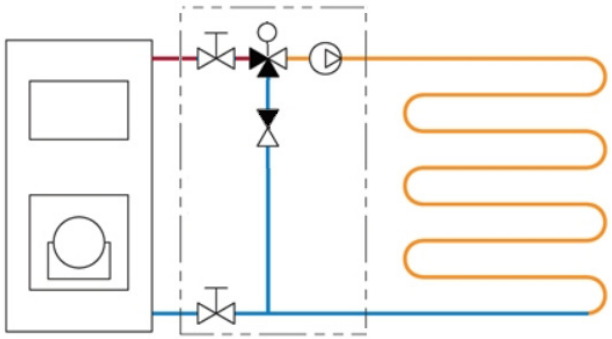
LK 419 Manifold Shunt is a shunt group with a thermal mixing valve designed for systems equipped with a main pump.

The shunt group is suitable for both left-hand and right-hand mounting directly to LK Heat Circuit Manifold.

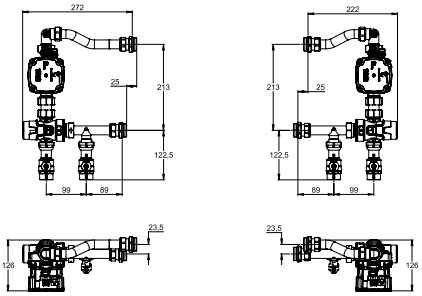
LK 419 is equipped with an asymmetric mixing valve, LK 551 HydroMix, that has a thermal insert that controls the supply of incoming and return pipe, so that the desired set temperature is achieved.

**PUMP CHARACTERISTICS**



## LK 419 - Male thread



| Article no. | Dim. | Kvs m³/h | Note | Weight kg |
|---|---|---|---|---|
| 299451 | M 1" | 3.5 | 25 - 45 °C | 4.6 |
| 299792 | M 1" | 3.5 | 35 - 65 °C | 4.6 |

# Shunt Group

## LK 420 MiniShunt 2.0

- Switchable between single and two-pipe radiator systems
- Suitable for both left-hand and right-hand mounting

**TECHNICAL DATA**

| | |
|---|---|
| Voltage | 1 phase 230V+10%/-15%, 50/60 Hz, PE |
| Power consumption | Max 45 W |
| Max. working pressure | 0.6 MPa (6 bar) |
| Max. differential pressure | 0.1 MPa (1 bar) |
| Working temperature | Primary Max. 80 °C<br>Secondary Min. 12 °C/Max. 55 °C |
| Ambient temperature | Max. 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Protection type | IP X4D |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Circulating pump | Wilo Yonos Para RSB 15/6-RKA |
| Material valve body | Nickel-plated Brass EN 12165 CW617N |
| Max valve capacity<br>With selfacting thermostat installed: | Kvs 1,05<br>At room temp. approx. 20 °C: Kv 0.9 |
| Type approval certificate | Pump: CE, EC Low Voltage Directive (2006/95/EC) incl. additions |

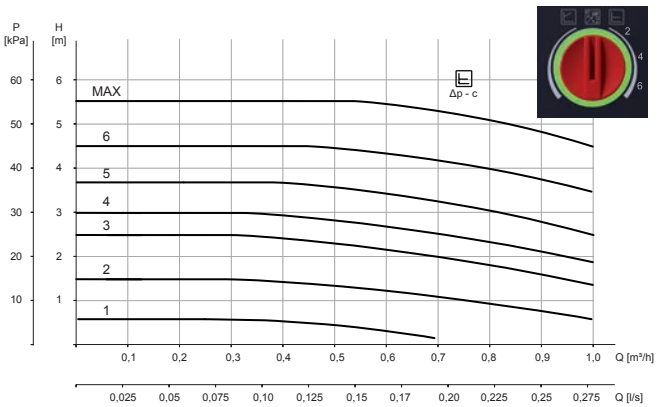
LK 420 MiniShunt 2.0 is a shunt group intended for use when smaller underfloor heating areas are to be connected to an existing heating system. LK MiniShunt adapts the heating system temperature to the lower temperature necessary for the underfloor heating system. Its capacity can normally be set at a heating need of 50 W/m² to a maximum 60 m² underfloor heating area. Capacity is however dependent on primary temperature, pressure, laying method etc.

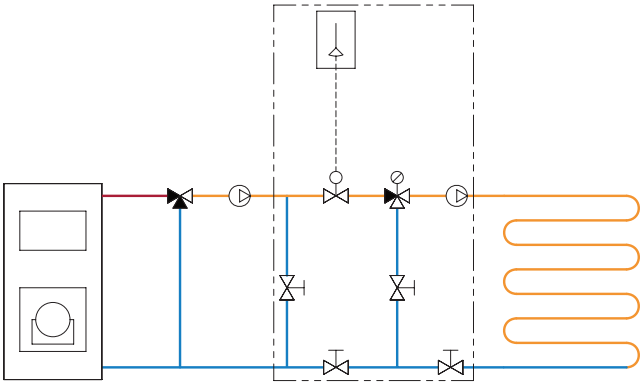
- For underfloor heating areas up to 60 m².
- Compact design.
- Energy efficient circulation pump.
- Thermostat-controlled maximum limit of supply temperature.
- Switchable between single or twin pipe systems.
- VF valve.
- Easy filling and air bleeding.
- Expandable to 2, 3 or 4 underfloor heating circuits.

**ITEMS INCLUDED:**

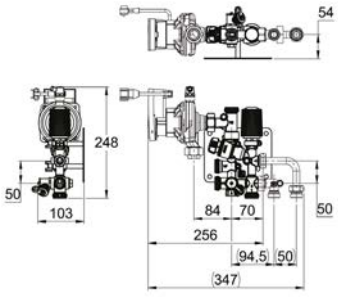
- Circulation pump Wilo Yonos Para RSB 15/6-RKA, with automatic speed control, 1 fas 230V AC, 50 Hz, max 45W, 0,44 A.
- Thermostat with capillary tube sensor, length 2 m.
- 1 thermometer to place in one of the shunt group's thermometer pockets.
- Hose 0.5 m for air bleeding.
- Primary connector G20 EK and 2 connectors for CU15.
- Bracket.

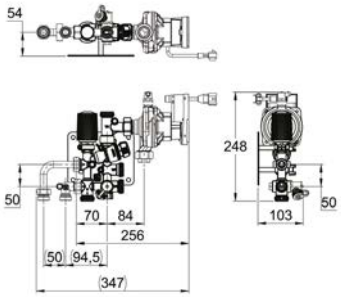
**PUMP CHARACTERISTICS**



# LK 420 - Compression fitting alt. Male thread / Female thread




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 299773 | M ¾" EuroCone / F ½" | 1.05 | 4.0 |

Dimension = Prim. / Sec. connection

## SPARE PARTS AND ACCESSORIES



| Article no. | Article | Position |
|---|---|---|
| 095442 | Circulating pump Wilo PARA | 1 |
| 095391 | Thermostat with sensor | 2 |

# Shunt Group

## LK 421 Manifold Shunt

- Suitable for left-hand and right-hand mounting

**TECHNICAL DATA**

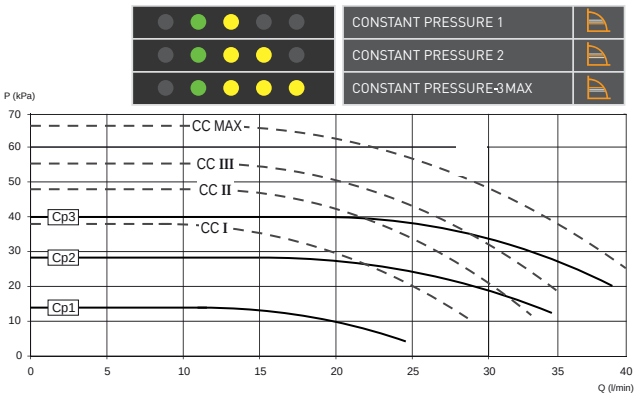
| | |
|---|---|
| Voltage | 1 phase 230V AC, -15 %/+10 %, 50 Hz , PE |
| Power consumption | Max. 52 W |
| Max. working pressure | 0.6 MPa (6 bar) |
| Max. differential pressure | 0.1 MPa (1 bar) |
| Working temperature | Primary: Min. 5 °C/Max. 90 °C<br>Secondary: Min. 30 °C/Max. 65 °C |
| Ambient temperature | Max. 70 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Protection type | IP44 |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Circulating pump | Grundfos UPM3 AUTO 15-70 |
| Material valve body | Nickel-plated Brass EN 12165 CW617N |
| Max Valve capacity | Control valve V1: With hand actuator fitted. Kv 2.2<br>With electric valve actuator: Kvs 3.6<br>Control valve V2: Kvs 4.1 |
| Type approval certificate | Pump: CE, EC Low Voltage Directive (2006/95/EC) incl. additions |

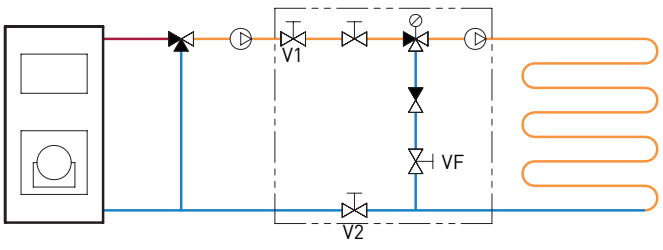
LK 421 is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50W/m² to max 200 m² of floor heating surface. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. The included supply pipe allows in both left- and righthand assembly to LK 430 Manifold RF. The shunt unit is a complete pre-manufactured unit.

**ITEMS INCLUDED:**

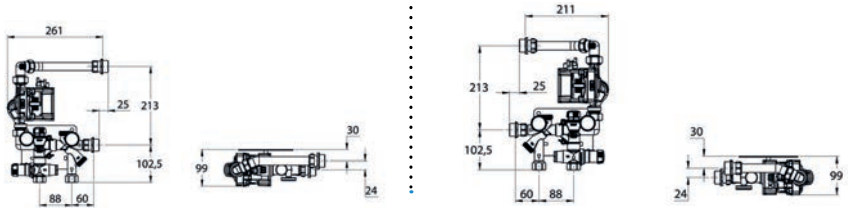
- Circulation pump Grundfos UPM3 Auto 15-70 130, with automatic speed control, 1 phase 230 V AC 50 Hz, max 45 W, 0.38 A
- Two way control valve Kvs value 2.5, equipped with hand actuator
- VF valve
- Temperature limiter of feed temperature
- Adjustment valve for the primary circuit
- Check valve
- 2 tube thermometers
- Isolation valves for primary circuit
- Fixing bracket

**PUMP CHARACTERISTICS**



# LK 421 - Female thread / Male thread




| Article no. | Dim. | Weight kg |
|---|---|---|
| 298559 | F ¾" / M 1" | 4.6 |

Dimension = Prim. / Sec. connection

## SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 187172 | Circulating pump Grundfos UPM3 Auto 15/70 | 1 |
| 095018 | Thermometer T40, 0 - 80 °C | 2 |
| 095221 | Bracket | 3 |

# Shunt Group

## LK 422 Manifold Shunt Tmax

- Suitable for left-hand and right-hand mounting

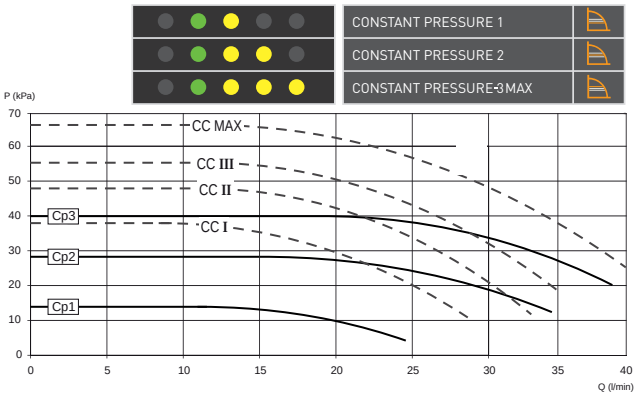
**TECHNICAL DATA**

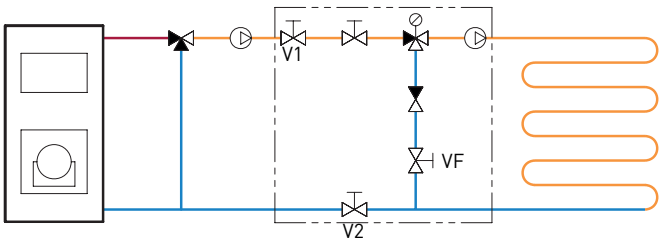
| | |
|---|---|
| Voltage | 1 phase 230V AC, -15 % / +10 %, 50 Hz, PE |
| Max. working pressure | 0.6 MPa (6 bar) |
| Max. differential pressure | 0.1 MPa (1 bar) |
| Working temperature | Primary: Min. 5 °C/Max. 90 °C<br>Secondary: Min. 30 °C/Max. 65 °C |
| Ambient temperature | Max. 70 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Protection type | IP44 |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Circulating pump | Grundfos UPM3 AUTO 15-70 |
| Material valve body | Nickel-plated Brass EN 12165 CW617N |
| Material pipe | Supply pipe: Stainless steel EN 1.4404 |

LK Manifold Shunt Tmax is used in systems with a main pump. The shunt unit can be mounted directly to LK Manifold RF from the left or right. The shunt unit is fitted as standard with a constant thermostat controlled feed temperature as well as an automatic speed controlled pump for reduced energy consumption and quieter operation. The guideline capacity of this shunt unit is a maximum of 130 m² floor heating surface. The capacity is dependent on heat requirement, laying procedure etc.

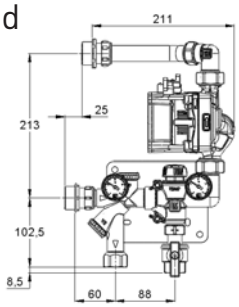
LK 422 can be mounted directly onto the manifold from the right or left. A manifold supply pipe for use when mounting to the left of the manifold is supplied. When fitting from the right, shorten the supply pipe by about 50 mm, reposition the thermometers and the pump through 180°.

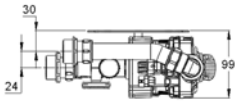
**PUMP CHARACTERISTICS**



## LK 422 - Female thread / Male thread



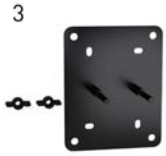

| Article no. | Dim. | Kvs m³/h | Kvs2 m³/h | Weight kg |
|---|---|---|---|---|
| 2419498 | F ¾" / M 1" | 2.7 | 5.0 | 5.3 |

### SPARE PARTS AND ACCESSORIES

1


2

3

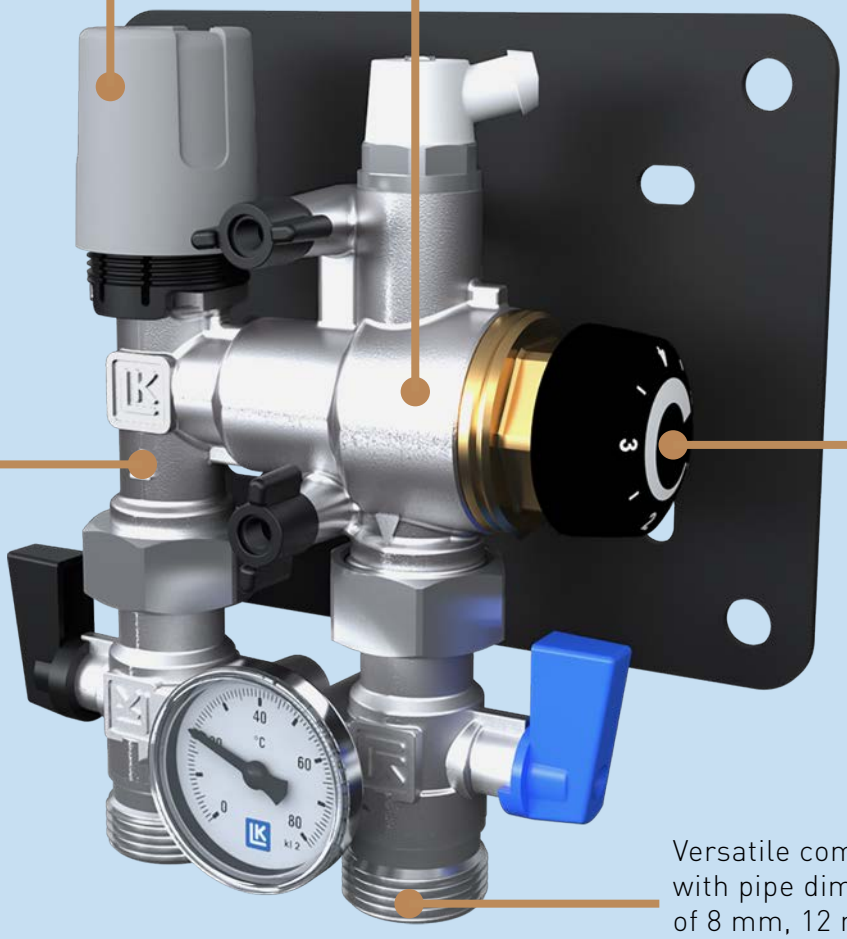


| Article no. | Article | Position |
|---|---|---|
| 187172 | Circulating pump Grundfos UPM3 Auto 15/70 | 1 |
| 095018 | Thermometer T40, 0 - 80 °C | 2 |
| 095221 | Bracket | 3 |

# LK 423 MiniLoop RTC

Capillary tube thermostat for accurate room temperature regulation

Small and compact design



Integrated return temperature limiter for precise control

Ideal for areas up to 10 m² where underfloor heating is desired instead of radiators

Versatile compatibility with pipe dimensions of 8 mm, 12 mm, 16 mm, or 20 mm

Keep your smaller underfloor heating systems under control with the **LK 423 MiniLoop RTC**. Designed for pipes of 8 mm, 12 mm, 16 mm, or 20 mm in concrete or leveling compound, it's got integrated return temperature limiting for surface temperature control. Room temperature is precisely managed with a capillary tube thermostat. Compact and ideal for areas up to 10 m².

# Shunt Group

## LK 423 MiniLoop RTC

- Small and compact
- Suitable for areas up to 10 m²

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 0.6 MPa (6 bar) |
| Working temperature | Max. 55 °C |
| Media | Water - Glycol mixture max. 50% |
| Adjustment range | Return valve: 23 - 44 °C<br>Thermostat: 6 - 28 °C |
| Length | Capillary tube: 2 m |
| Diameter | Capillary tube bulb: Ø 16 mm |

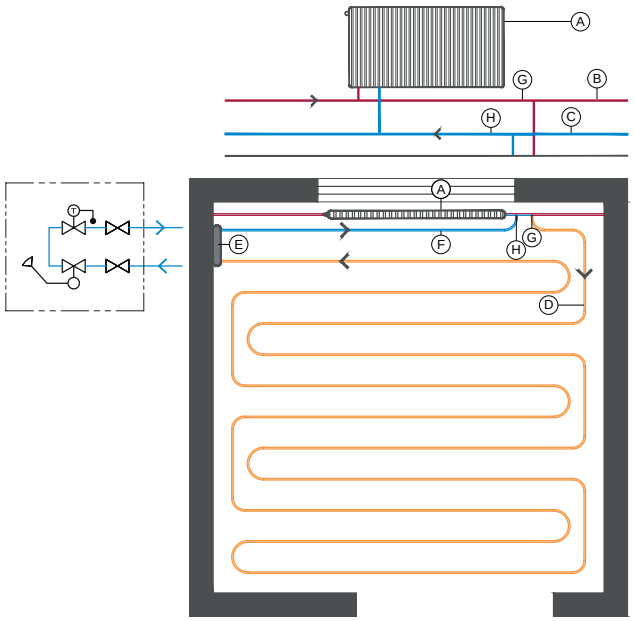
LK 423 MiniLoop RTC is designed to control smaller under floor heating systems that are embedded in concrete or levelling compound with a pipe dimension of 8 mm, 12 mm, 16 mm or 20 mm.

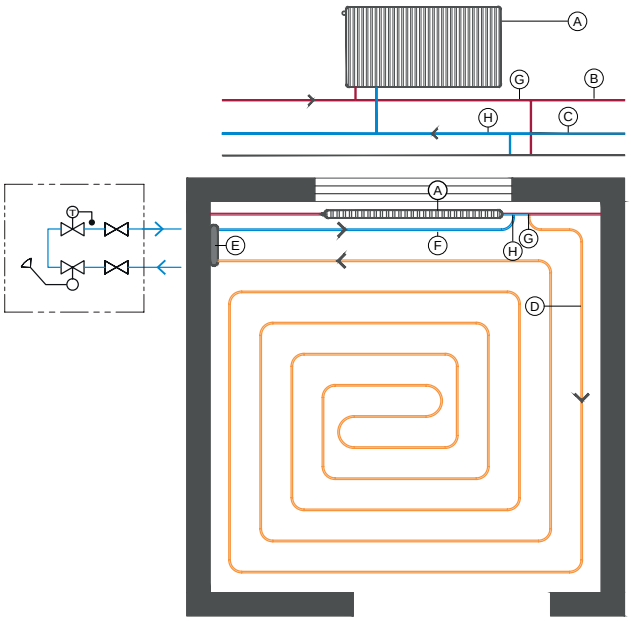
LK 423 MiniLoop RTC has integrated return temperature limiter that make it possible to limit the floor surface temperature.

The room temperature is regulated via a capillary tube thermostat. It is also possible to install a wireless or wired electronic room temperature control.

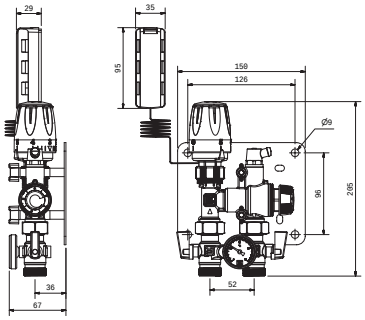
A. Radiator
B. Radiator system, supply
C. Radiator system, return
D. Floor heating circuit
E. LK 423 MiniLoop RTC
F. Return pipe, floor heating circuit (from RTC)
G. Connection point, supply floor heating circuit
H. Connection point, return floor heating circuit (from RTC)

Recommended max. underfloor heating surface installation: 10 m²



# LK 423 - Male thread




| Article no. | Dim. | Kvs m³/h | Weight kg |
|---|---|---|---|
| 299355 | ¾" Eurocone | 1.48 | 0.4 |

## SPARE PARTS AND ACCESSORIES

1.

2.

3.

| Article no. | Article | Position |
|---|---|---|
| 095391 | Thermostat with sensor | 1 |
| 2988856 | LK Installation cabinet RTB | 2 |
| 1882348 | LK Frame/hatch | 3 |

# Flow Adjustment Valve

## LK 435 OptiFlow

- With MemoStop for locking setting
- Adjusted with Allen key while reading off flow on a clear scale

**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1,0 bar) |
| Working temperature | |
| Water/Glycol 50/50% | Min. -20 °C / Max. 80 °C (90 °C briefly) |
| Water/Ethanol 70/30% | Min. -20 °C / Max. 70 °C (85 °C briefly) |
| Media | Water - Glycol mixture max. 50% Ethanol mixture max. 30% |
| Material valve body | Nickel-plated Brass EN 12165 CW617N |
| Measure accuracy | Flow meter: +/- 12% |
| Flow ranges | 2-16 l/min, 4-36 l/min |
| Thread standard | Adjustment valve inlet: M - male Adjustment valve outlet: F - female |

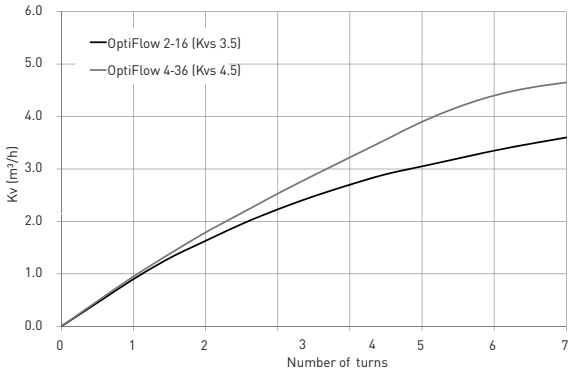
LK 435 OptiFlow is a group valve for flow adjustment of hydraulic systems such as underfloor heating, traditional heating and cooling systems. Adjustments are easily made using an Allen key. No measuring equipment is needed. The flow rate is read off directly from the visual flow indicator. The flow meter continuously measures and displays the actual flow rate during operation.

LK 435 OptiFlow has a MemoStop function for locking the setting. This means that the valve can be used as a shut-off valve without losing settings. A marking plate for labelling and documenting the setting is enclosed. LK 435 OptiFlow can be supplemented with a thermometer and threaded union parts, straight or angular, with rotating nut for simple assembly to, for example, an LK 430 Manifold RF - see under Accessories. The thermometer is placed in the valve's integrated sensor pocket.

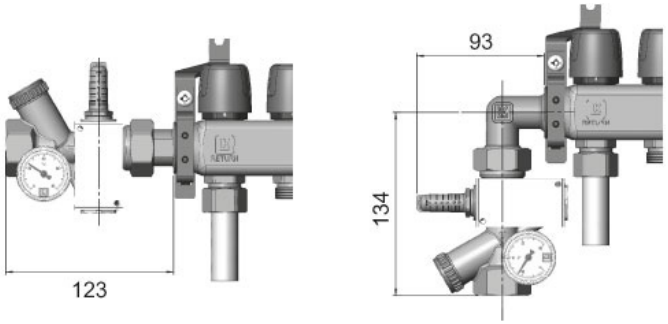
The valve can be mounted in any position. The arrow on the valve body indicates the flow direction. For accurate measurement a straight piece of tube at least of the same length as the valve body should precede the balancing valve. When assembling to an LK 430 Manifold RF the adjustment valve can be fitted directly to the manifold, thus replacing the shut-off valve.

The flow meter is designed so that the fluid does not flow through the glass in order to protect it from debris and dirt. However, after a period of time the glass may still have to be cleaned as the fluid often becomes contaminated and blackened. It is then easy to remove the glass to clean it. The function/setting of the valve is not affected by deposits in the glass.

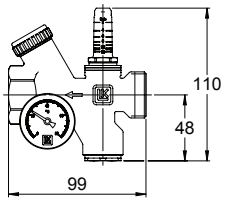
**VALVE CHARACTERISTICS**




**WITH LK 430 MANIFOLD RF**



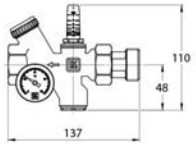
# LK 435 - Male thread / Female thread



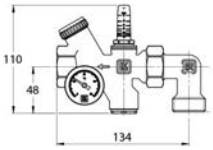

| Article no. | Dim. | Kvs m³/h | Flow range | Weight kg |
|---|---|---|---|---|
| 090275 | Adjustment valve - M 1" / F 1" | 3.5 | 2-16 l/min | 0.5 |
| 090276 | Adjustment valve - M 1" / F 1" | 4.5 | 4-36 l/min | 0.5 |

## SPARE PARTS AND ACCESSORIES

1




2




3

| Article no. | Article | Position |
|---|---|---|
| 095222 | Threaded union part straight M 1" with rotating nut | 1 |
| 095223 | Threaded union part angle M 1" with rotating nut | 2 |
| 095018 | Thermometer T40, 0 - 80 °C | 3 |

# Electric portable boiler

## LK 440 EasyHeat

- Complete portable electrically heated boiler
- Available in 3 kW and 9 kW
- Easy installation

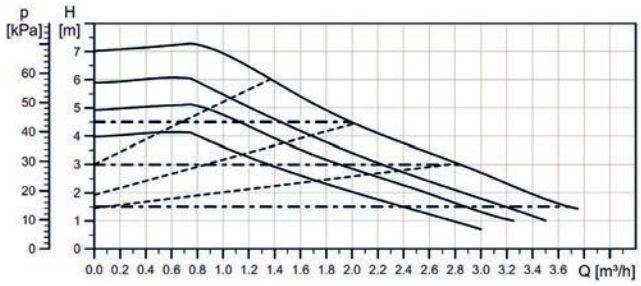
| TECHNICAL DATA | |
|---|---|
| Protection class | IP 44 |
| Media | Max. glycol solution 30% |
| Circulating pump | Grundfos UPM3 AUTO |
| Thermostat | Operating thermostat Max 60 °C<br>Safety thermostat 80 °C |
| Expansion tank | 12 l |
| Safety valve | 3 bar |
| Boiler volume | 2.8 l |
| Type approval certificate | CE |

The LK 440 EasyHeat is a complete portable electrically heated boiler. It is primarily meant to be used as a temporary heater, e.g. for drying concrete slabs installed with under floor heating and for heating buildings under construction.

LK 440 EasyHeat is available in two versions, with 3-phase 400V or 1-phase 230V. The total output capacity on 3-phase 400V is 9 kW and works in two steps of 4.5 kW. The total output capacity on 1-phase 230V can be manually set between 2 or 3 kW.

The boiler is supplied complete with a circulation pump, an expansion tank, and auxiliary devices including a safety valve and air vent valve. Connection to the under floor heating manifold or heating system is simple, using steel-reinforced flexible hoses. Temperature regulation is controlled by the boiler's operating thermostat.

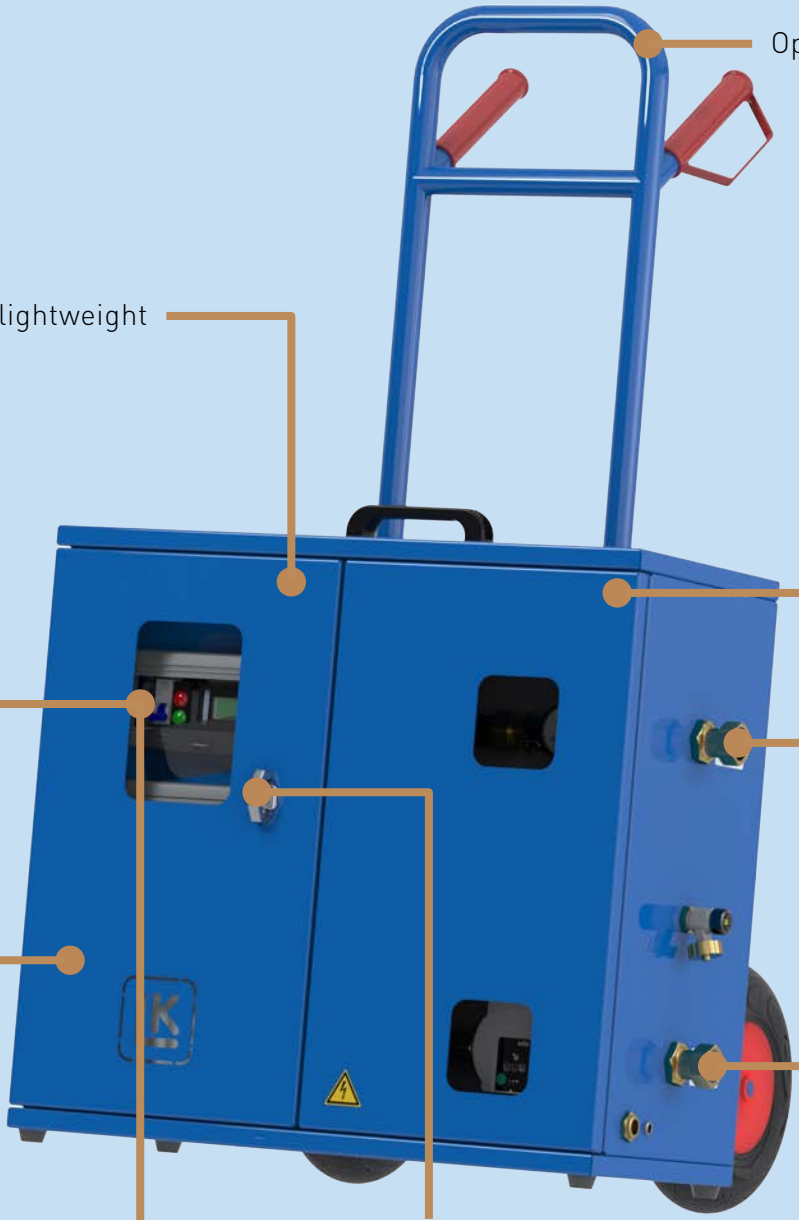
**CAPACITY DIAGRAM**




## LK 440

| Art. no. | Dim. | Connection | Voltage | B mm | H mm | L mm | Safety thermostat | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 298470 | F 1" | 3-phase 400 V Boiler must be protected using 3 x 16 A fuses (max. current 13.5 A) | 9 kW in two stages at 4.5 kW | 430 | 650 | 710 | 80 °C | 30.0 |
| 298588 | F 1" | 1-phase 230V Boiler must be protected using 8,5 A 2 kW, 13 A 3 kW | 2 alt. 3 kW | 430 | 650 | 710 | 80 °C | 30.0 |

# LK 450 EasyHeat P




Designed for temporary heating needs, this complete electric boiler is your solution for drying concrete slabs and heating construction sites. With programmable precision, constant temperature control, and a sturdy lockable cabinet, the **LK EasyHeat 450 P** is the reliable choice for your heating requirements.

# Electric portable boiler

## LK 450 EasyHeat P

- Portable
- Water level detection
- Lockable cabinet

| TECHNICAL DATA | |
|---|---|
| Voltage | 400 V |
| Primary voltage adapter | 400 V |
| Max. boiler efficiency | 9 kW (3 + 6 kW) |
| Sound level | <30 dB |
| Max. working pressure | 3 bar |
| Working temperature | 8-60 °C |
| Min. supply temperature | 8 °C |
| Max. supply temperature | 60 °C |
| Thread standard | G - female thread |
| Protection type | IP44 |
| Media | Water - Glycol mixture max. 30% |
| Electrical connection | CEE-socket 400 V/16 A 5-pole |
| Circulating pump | Wilo Para 15/6 - Composite |
| Expansion vessel | 6 l |
| Antifreeze function | Yes |
| Level guard | Yes |
| Overheating protection | 80 °C |
| File import / export: | Micro SD-card (not included) |

The LK 450 EasyHeat P (programmable) 9 kW is a complete portable electrically heated boiler. It is primarily meant to be used as a temporary heater, e.g. for drying concrete slabs installed with under floor heating or for heating buildings under construction.

The temperature can be set between 8 and 60°C.

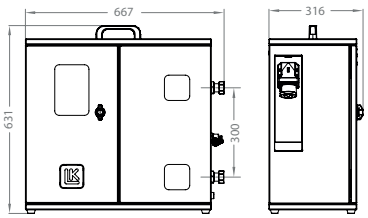
With the LK 450 EasyHeat P 9 kW, setting individual drying period programs is possible.
60 individual heating steps enable full control of the drying process and to receive a report on process afterwards if a micro SD-card is used.
When a program is finished, the boiler maintains a supply temperature of 8 °C to avoid risk of freezing.
With its built-in water level detection, damage to the immersion heater is prevented if the water level in the system gets too low.

A constant temperature can be set when used as a temporary electric boiler.

EasyHeat comes in a blue aluminum cabinet with inspection window, so you can monitor the unit during operation. The cabinet can be locked to prevent accidental changes to the set temperature.

The LK 321 MultiFill® is available as an accessory, and makes it easy to fill the system. The LK 522 filter ball is used to protect EasyHeat from dirt and magnetite. Transport trolley to simplify moving unit. Connection pipes for easy connection between EasyHeat and the heating system. Refer to Accessories & Spare parts.

## LK 450 EasyHeat P - Female thread - 9 kW




| Article no. | Dim. | Voltage | Weight kg |
|---|---|---|---|
| 299529 | F 1" | 400 V | <25kg |

## SPARE PARTS AND ACCESSORIES

1.

2.

3.

4.

5.

| Article no. | Article | Position |
|---|---|---|
| 187354 | Wilo Para 15/6 - Composite | 1 |
| 187352 | Transport trolley | 2 |
| 187353 | 2 pcs. flexible hoses 1" F x 1" M, 1,5 m | 3 |
| 092320 | LK 321 MultiFill® | 4 |
| 182437 | LK 522 FilterBall Magnet | 5 |

# Electric portable boiler

## LK 450 EasyHeat M

- Portable
- Water level detection
- Lockable cabinet

| TECHNICAL DATA | |
|---|---|
| Voltage | 3 kW: 230 V<br>9 kW: 400 V |
| Primary voltage, adapter | 3 kW: 230 V<br>9 kW: 400 V |
| Max. boiler efficiency | 3 kW (1,5 + 1,5 kW)<br>9 kW (3 + 6 kW) |
| Sound level | <30 dB |
| Max. working pressure | 3 bar |
| Working temperature | 8-60 °C |
| Min. supply temperature | 8 °C |
| Max. supply temperature | 60 °C |
| Thread standard | G - female thread |
| Protection type | IP44 |
| Media | Water - Glycol mixture max. 30% |
| Electrical connection | 3 kW: CEE 16 A/230 V/50 Hz/1~ 1-Phase<br>9 kW: CEE-socket 400 V/16 A 5-pole |
| Circulating pump | Wilo Para 15/6 - Composite |
| Expansion vessel | 6 l |
| Antifreeze function | Yes |
| Level guard | Yes |
| Overheating protection | 80 °C |
| Type approval certificate | CE |

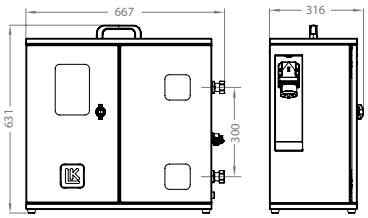
The LK 450 EasyHeat M (manual) 3 kW or 9 kW is a complete portable electrically heated boiler. It is primarily meant to be used as a temporary heater, e.g. for drying concrete slabs installed with underfloor heating or for heating buildings under construction.

With the LK 450 EasyHeat M, setting the required constant temperature between 8 and 60°C is easy.
The LK 450 EasyHeat is available in two versions: single phase 230 V with 3 kW output or 3-phase 400 V with 9 kW output.
With its built-in water level detection, damage to the immersion heater is prevented if the water level in the system gets too low.

EasyHeat comes in a blue aluminum cabinet with inspection window, so you can monitor the unit during operation. The cabinet can be locked to prevent accidental changes to the set temperature.

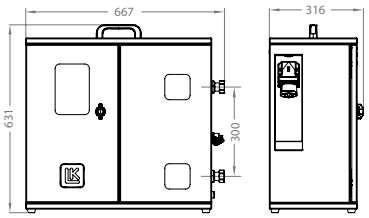
The LK 321 MultiFill® is available as an accessory, and makes it easy to fill the system. The LK 522 filter ball is used to protect EasyHeat from dirt and magnetite. Transport trolley to simplify moving unit. Connection pipes for easy connection between EasyHeat and the heating system. Refer to Accessories & Spare parts.

## LK 450 EasyHeat M - Female thread - 3 kW




| Article no. | Connection | Voltage | Weight kg |
|---|---|---|---|
| 299742 | F 1" | 230 V | <25 |

# LK 450 EasyHeat M - Female thread - 9 kW




| Article no. | Connection | Voltage | Weight kg |
|---|---|---|---|
| 299748 | F 1" | 400 V | <25 |

## SPARE PARTS AND ACCESSORIES

1.

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5.

| Article no. | Article | Position |
|---|---|---|
| 187354 | Wilo Para 15/6 - Composite | 1 |
| 187352 | Transport trolley | 2 |
| 187353 | 2 pcs. flexible hoses 1" F x 1" M, 1,5 m | 3 |
| 092320 | LK 321 MultiFill® | 4 |
| 182437 | LK 522 FilterBall Magnet | 5 |

# Ball Valve

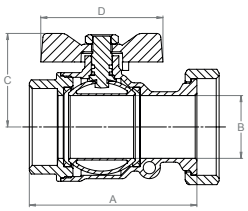
## LK 315 BallValve

- Low pressure drop
- Thermometer pocket

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. -20/Max. 110 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Brass EN 12165 CW617N |
| Material sealing | PTFE |
| Spindle sealing | EPDM |

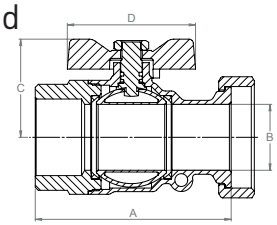
Ballvalve for heating systems. The valve has a 2" rotating nut on one side, for an easy connection on e.g. a circulating pump. A sensor pocket is integrated in the valve body. Thermometer 180352 is available as an accessory.

### LK 315 - Female thread



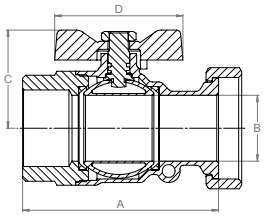

| Article no. | Dim. | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|
| 055840 | F 2", rotating nut / F 1½" | 98.5 | 37 | 55.5 | 72 | 0.9 |

### LK 315 - Female thread / Male thread



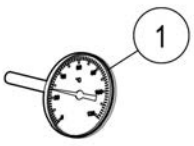

| Article no. | Dim. | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|
| 055841 | F 2", rotating nut / M 2" | 110 | 37 | 55.5 | 72 | 1.2 |

### LK 315 - Female thread



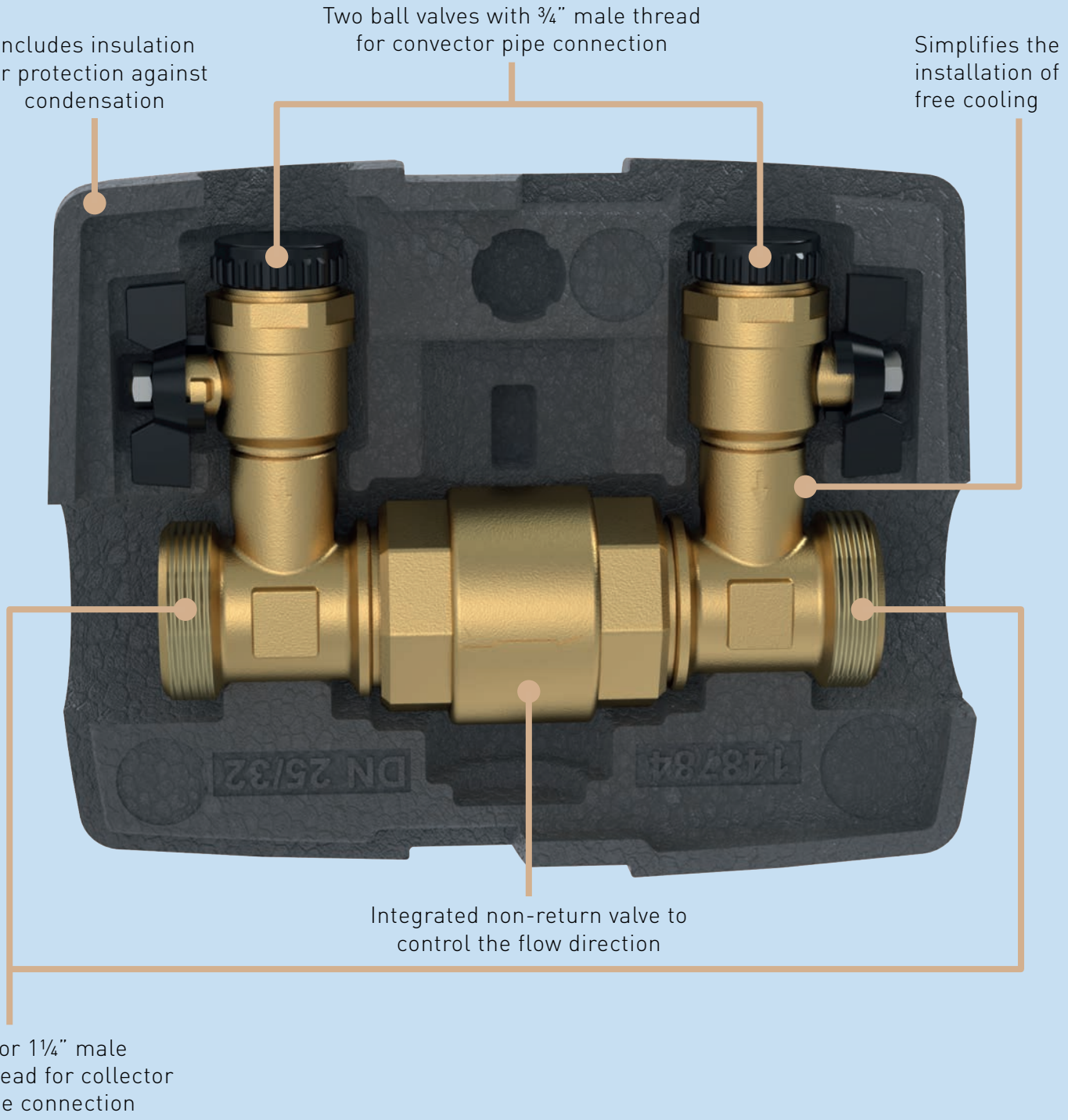

| Article no. | Dim. | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|
| 055842 | F 2", rotating nut / F 2" | 101.5 | 37 | 55.5 | 72 | 1.0 |

**SPARE PARTS AND ACCESSORIES**




| Article no. | Article | Position |
|---|---|---|
| 180352 | Thermometer 120 °C | 1 |

# LK 322 CoolUnit




The **LK 322 CoolUnit** is a valve combination for geothermal heat pumps that channels cold brine to a fan coil, cooling your home with natural ground cold. It also recharges the borehole in summer, improving heat pump performance. With a non-return valve for proper flow and flexible 1" or 1¼" collector and ¾" convector connections, it offers an efficient, versatile free cooling solution.

# Valve combination

## LK 322 CoolUnit

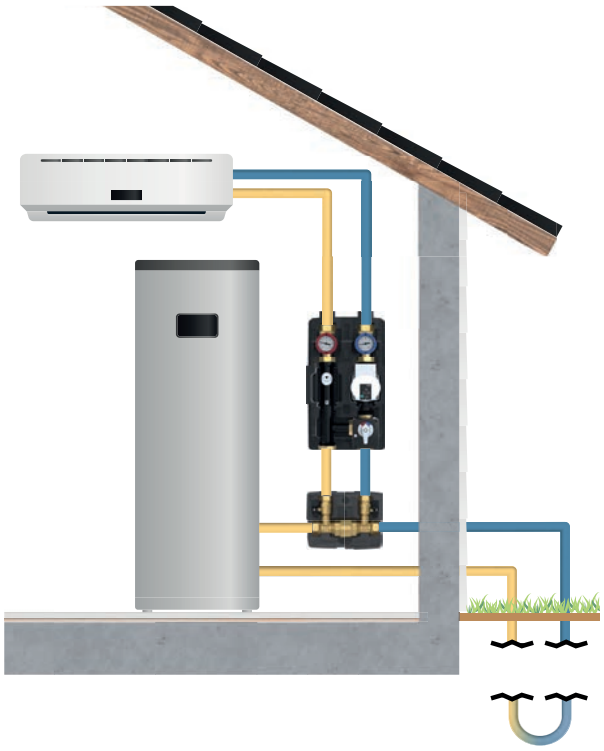
- Insulation against condensation
- Energy effective way for free cooling
- Recharge the borehole during the summer

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 0,6 MPa (6 bar) |
| Working temperature | Min. -20 °C/Max. 80 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 12165 CW617N |
| Material sealing | EPDM |

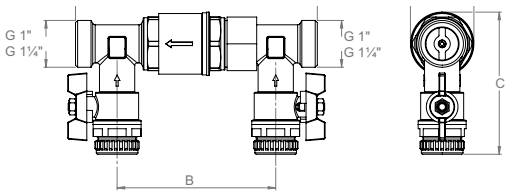
LK 322 CoolUnit is a valve combination that utilises the cold available in a system with a geothermal heat pump.
By running the brine in the collector hose to a fan coil, you can cool your home with the cold naturally found in the ground. In addition, the borehole is recharged during the summer, which increases the performance of the heat pump.

The LK 322 CoolUnit also contains a non-return valve to ensure the liquid is run in the right direction when fitting the shunt group with its own circulation pump. See LK HydronicGroup C/C 90 and 125 Cooling for a suitable shunt group.

The LK 322 have two 1" alt. 1¼" male thread for connection to the collector pipe. Two ball valves with ¾" male thread for connection to convector pipe.



## LK 322 - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 092366 | G 1" | 9.5 | 168 | 110 | 112 | 1.6 |
| 092367 | G 1¼" | 16 | 168 | 110 | 112 | 1.7 |

## SPARE PARTS AND ACCESSORIES

1.

2.

3.

4.

| Article no. | Article | Position |
|---|---|---|
| 095072 | LK Insulation, 521 DN 25-32 | 1 |
| 299189 | Flanged pipe - 22 mm, F 1", L=120 mm | 2 |
| 299190 | Flanged pipe - 28 mm, F 1¼", L=120 mm | 2 |
| 299387 | LK HydronicGroup C/C 90 Cooling | 3 |
| 396425 | LK HydronicGroup C/C 125 Cooling | 4 |

# Cyclone filter

## LK 360 NetMag

- Extend the service life of your heating system
- Energy-saving
- Rotatable filter housing, can be installed vertically and horizontally

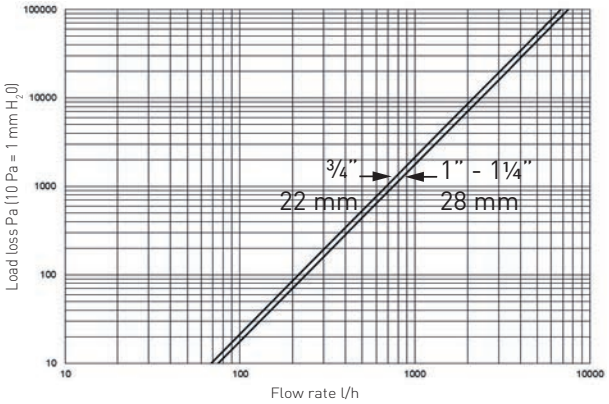
**TECHNICAL DATA**

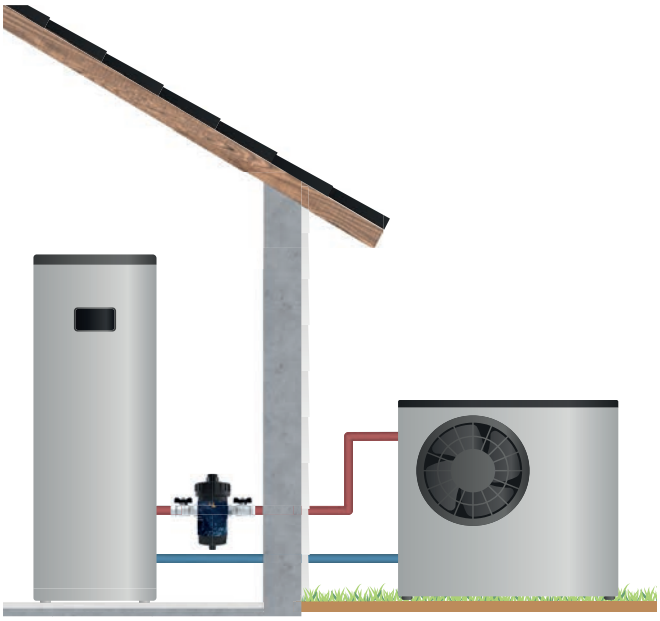
| | |
|---|---|
| Max. working pressure | 0.4 MPa (4 bar) |
| Working temperature | 0-90 °C |
| Thread standard | G - female thread,ISO 228/1 |
| Media | Water - Glycol mixture max. 30% |
| Material valve body | Nickel-plated Brass EN 12165 CW617N |
| Material filter element | Polyamide PA66 |
| Material ball valve | Nickle-plated brass CW617N |
| Material magnet | Neodymium 11,000 gauss |

The LK 360 NetMag is a magnetic cyclone filter that effectively protects your boiler and other components in your heating system by trapping dirt and magnetite.

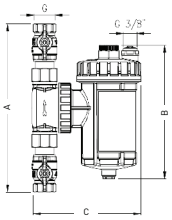
LK 360 shall be installed on on the return pipe at the boiler inlet to protect the boiler from contamination. The filter housing is rotatable and can be installed vertically or horizontally, making it suitable for most spaces.

**PRESSURE DROP DIAGRAM**



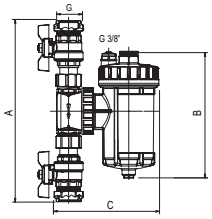



## LK 360 - Female thread




| Article no. | Dim. | DN | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|
| 50801619 | F ¾" | 20 | 6.81 | 237 | 190 | 153 | 1.2 |
| 50801620 | F 1" | 25 | 7.51 | 253 | 190 | 153 | 1.3 |
| 50801621 | F 1 ¼" | 32 | 7.51 | 256 | 190 | 153 | 1.3 |

# LK 360 - Compression Fitting




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|
| 50802032 | 22 mm | 6.81 | 240 | 190 | 153 | 1.2 |
| 50802033 | 28 mm | 7.51 | 273 | 190 | 153 | 1.3 |

**SPARE PARTS AND ACCESSORIES**


| Article no. | Article | Position |
|---|---|---|
| 095501 | Insulation | 1 |
| 095500 | Magnet | 2 |

# Thermal Safety Valve

## LK 519 ThermoSafe

- Protect your boiler against overpressure
- Protective flexible hose for capillary tube

**TECHNICAL DATA**

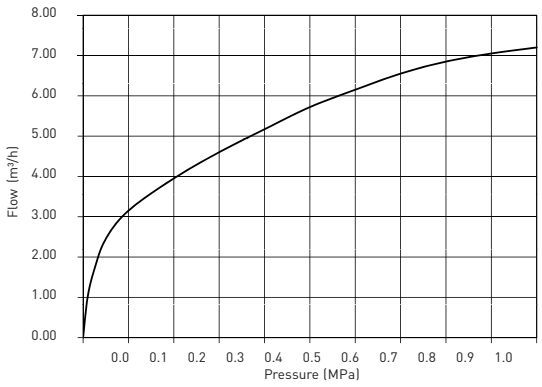
| | |
|---|---|
| Max. working pressure | 1.0 MPa (10 bar) |
| Working temperature | Min. 5 °C/Max. 110 °C |
| Opening temperature | 97±2 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Material valve body | Brass EN 12165 CW617N |
| Material sealing | Viton |
| Material spring | Stainless steel |
| Material pipe | Capillary pipe: Copper,<br>length 1300 mm, with insulation |
| Discharge capacity | Max. 6,5 m³/h at 0,6 MPa (6 bar) |
| Type approval certificate | CE |

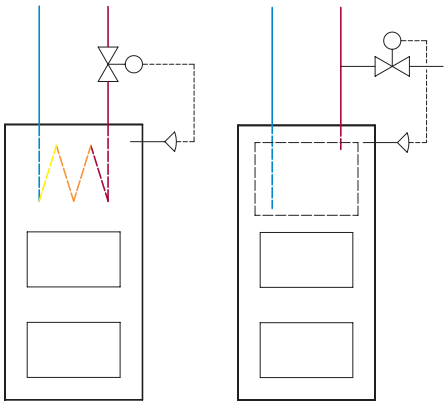
LK 519 ThermoSafe is a thermal safety valve for solid fuel boilers with built-in water heaters or cooling coils. The safety valve prevents the temperature of the boiler water from rising above the boiling point. When temperature levels are too high the valve opens to let cold water flow through water heater or cooling coil, thus reducing the temperature of the boiler. LK 519 ThermoSafe has two, separately functioning, temperature sensors for added safety.

LK 519 ThermoSafe safety valve is installed on the outlet pipe of water heaters. The inlet pipe is recommended for cooling coils as such an installation would protect the armature from impurities caused by lime scale and other deposits.

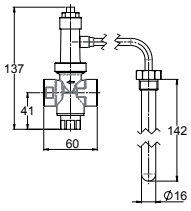
The arrow on the valve housing indicates the direction of the flow. The sensor pocket is screwed into the designated connection on the boiler. It is easier to install if the sensors are first removed from the pocket.

**VALVE CHARACTERISTICS**



## LK 519 - Female thread




| Article no. | Dim. | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|
| 091777 | F ¾" / M ½" | 120 | 41 | 60 | 142 | 0.7 |

# Filter Ball Valve

## LK 522 FilterBall

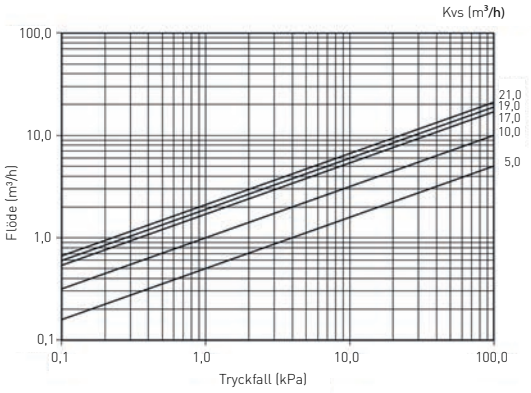
- DZR Brass
- Easy to clean the filter


| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.6 MPa (16 bar) |
| Working temperature | Min. -20 °C/Max. 120 °C |
| Mesh opening filter | 0.7 mm / 0.5 mm |
| Thread standard | ISO 228/1 |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material filter element | Stainless Steel |
| Material sealing | PTFE |
| Material cover sealing | EPDM |
| Spindle sealing | Two O-rings, EPDM |

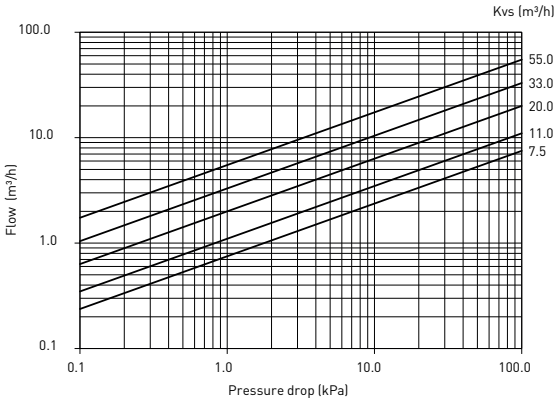
LK 522 FilterBall is a ball valve with an integrated filter suitable for heating, cooling and tap water systems.

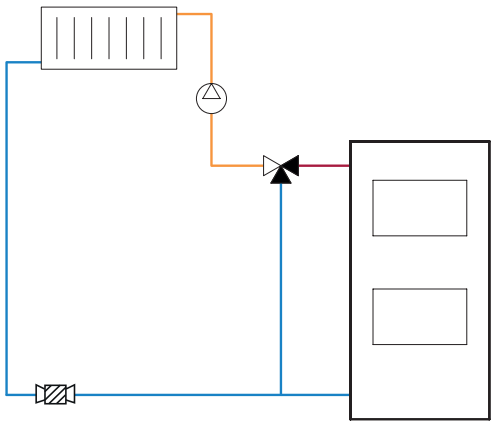
The filter is easy to clean, just close the ball valve, unscrew the lid and remove the filter.

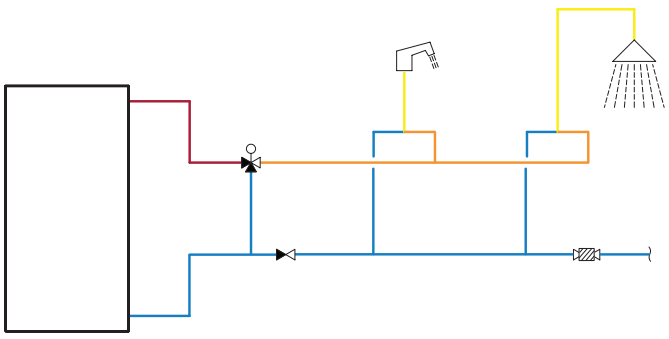
**CAPACITY DIAGRAM - 0,5 MM**



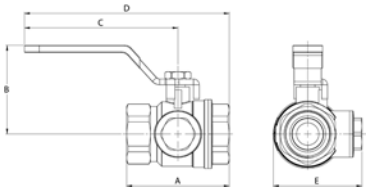

**CAPACITY DIAGRAM - 0,7 MM**



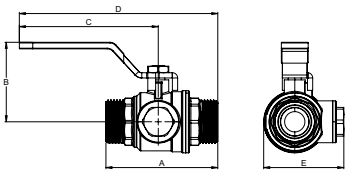


## LK 522 - Female thread

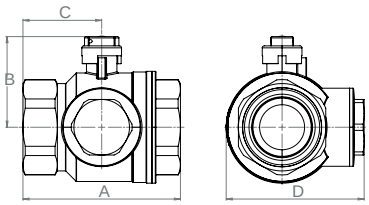

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182015 | F ¾" | 7.5 | 60 | 55 | 87 | 117 | 51 | Mesh opening filter: 0.7 mm | 0.3 |
| 182016 | F 1" | 11.0 | 71 | 60 | 107 | 142 | 61 | Mesh opening filter: 0.7 mm | 0.5 |
| 182017 | F 1¼" | 20.0 | 84 | 65 | 107 | 149 | 75 | Mesh opening filter: 0.7 mm | 0.9 |
| 182018 | F 1½" | 33.0 | 93 | 80 | 143 | 189 | 88 | Mesh opening filter: 0.7 mm | 1.3 |
| 182019 | F 2" | 55.0 | 119 | 90 | 143 | 203 | 105 | Mesh opening filter: 0.7 mm | 2.1 |

## LK 522 - Male thread

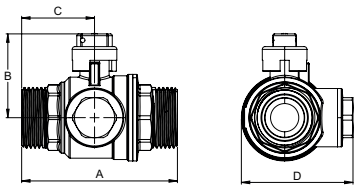

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182432 | M ¾" | 5.0 | 74 | 55 | 87 | 126 | 51 | Mesh opening filter: 0.7 mm | 0.4 |
| 182433 | M 1" | 10.0 | 85.5 | 60 | 107 | 153 | 61 | Mesh opening filter: 0.7 mm | 0.6 |

## LK 522 without handle - Female thread

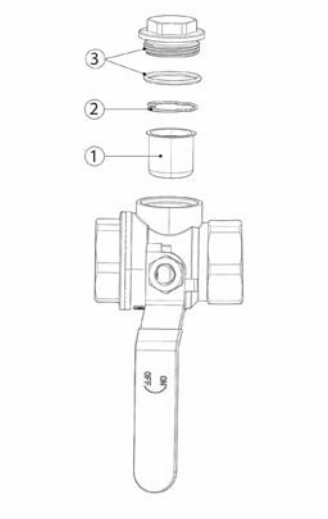



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182337 | F ¾" | 5.0 | 60 | 42 | 30 | 51 | Mesh opening filter: 0.5 mm | 0.3 |
| 182338 | F 1" | 10.0 | 71 | 46 | 36 | 61 | Mesh opening filter: 0.5 mm | 0.5 |
| 182339 | F 1¼" | 17.0 | 84 | 54 | 42 | 75 | Mesh opening filter: 0.5 mm | 0.9 |
| 182340 | F 1½" | 19.0 | 93 | 61 | 47 | 88 | Mesh opening filter: 0.5 mm | 1.3 |
| 182341 | F 2" | 21.0 | 119 | 69 | 60 | 105 | Mesh opening filter: 0.5 mm | 2.1 |

## LK 522 without handle - Male thread




| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182434 | M ¾" | 5.0 | 74 | 42 | 39 | 61 | Mesh opening filter: 0.5 mm | 0.4 |
| 182435 | M 1" | 10.0 | 85.5 | 46 | 45.5 | 61 | Mesh opening filter: 0.5 mm | 0.6 |




| Article no. | Article | Position |
|---|---|---|
| 095414 | Filter ¾", Mesh opening: 0.7 mm | 1 |
| 095415 | Filter 1", Mesh opening: 0.7 mm | 1 |
| 095416 | Filter 1¼", Mesh opening: 0.7 mm | 1 |
| 095417 | Filter 1½, Mesh opening: 0.7 mm | 1 |
| 095418 | Filter 2", Mesh opening: 0.7 mm | 1 |
| 095419 | Filter ¾", Mesh opening: 0.5 mm | 1 |
| 095420 | Filter 1", Mesh opening: 0.5 mm | 1 |
| 095421 | Filter 1¼", Mesh opening: 0.5 mm | 1 |
| 095422 | Filter 1½", Mesh opening: 0.5 mm | 1 |
| 095423 | Filter 2", Mesh opening: 0.5 mm | 1 |
| 095425 | Locking ring / Clip ¾" | 2 |
| 095426 | Locking ring / Clip 1" | 2 |
| 095427 | Locking ring / Clip 1¼" | 2 |
| 095428 | Locking ring / Clip 1½" | 2 |
| 095429 | Locking ring / Clip 2" | 2 |
| 095437 | Cover & O-ring ¾" | 3 |
| 095438 | Cover & O-ring 1" | 3 |
| 095439 | Cover & O-ring 1¼" | 3 |
| 095440 | Cover & O-ring 1½" | 3 |
| 095441 | Cover & O-ring 2" | 3 |

# Filter Ball Valve with magnet

## LK 522 FilterBall Magnet

- DZR Brass
- Easy to clean the filter
- Magnet Neodym, 12.000 gs

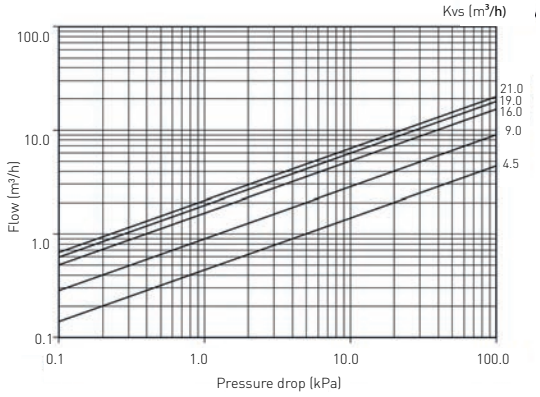

**TECHNICAL DATA**

| | |
|---|---|
| Max. working pressure | 1.6 MPa (16 bar) |
| Working temperature | Min. -20 °C/Max. 120 °C |
| Mesh opening filter | 0.7 mm / 0.5 mm |
| Thread standard | ISO 228/1 |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | DZR Brass EN 12165 CW625N |
| Material filter element | Stainless Steel |
| Material sealing | PTFE |
| Material cover sealing | EPDM |
| Material magnet | Neodymium |
| Spindle sealing | Two O-rings, EPDM |

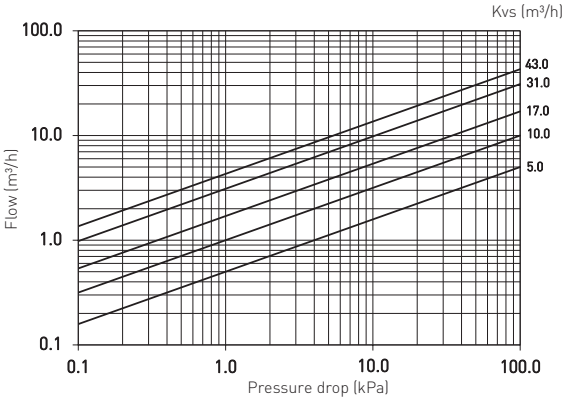
LK 522 FilterBall Magnet is a filter ball valve with an integrated magnet for collecting magnetite, suitable for heating, cooling and tap water systems.

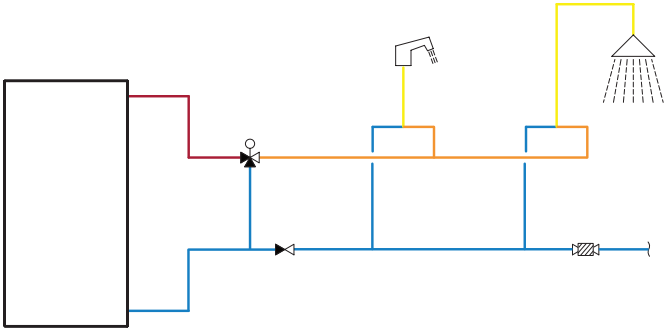
The filter and the magnet is easy to clean, just close the ball valve, unscrew the lid and remove the filter and the magnet.

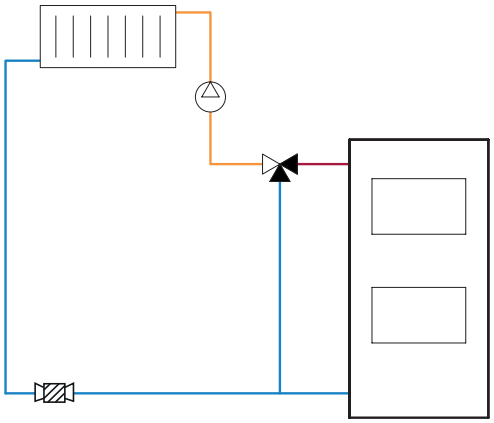
**CAPACITY DIAGRAM - 0.5 MM**



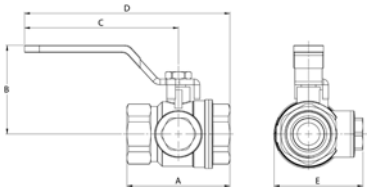

**CAPACITY DIAGRAM - 0.7 MM**



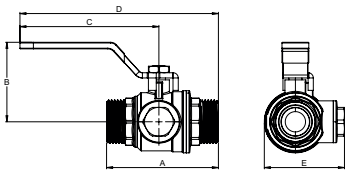


## LK 522 Magnet - Female thread

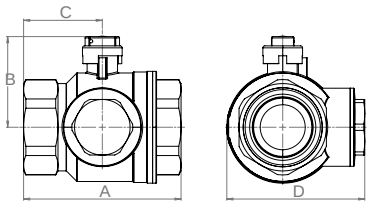

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182274 | F ¾" | 5.0 | 60 | 55 | 87 | 117 | 51 | Mesh opening filter: 0.7 mm | 0.3 |
| 182275 | F 1" | 10.0 | 71 | 60 | 107 | 142 | 61 | Mesh opening filter: 0.7 mm | 0.5 |
| 182276 | F 1¼" | 17.0 | 84 | 65 | 107 | 149 | 75 | Mesh opening filter: 0.7 mm | 0.9 |
| 182277 | F 1½" | 31.0 | 93 | 80 | 143 | 189 | 88 | Mesh opening filter: 0.7 mm | 1.3 |
| 182278 | F 2" | 43.0 | 119 | 90 | 143 | 203 | 105 | Mesh opening filter: 0.7 mm | 2.1 |

## LK 522 Magnet - Male thread

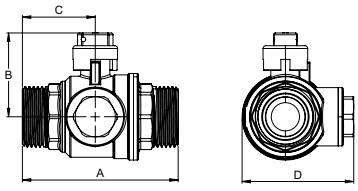

| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | E mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|---|
| 182436 | M ¾" | 4.5 | 74 | 55 | 87 | 126 | 51 | Mesh opening filter: 0.7 mm | 0.4 |
| 182437 | M 1" | 9.0 | 85.5 | 60 | 107 | 153 | 61 | Mesh opening filter: 0.7 mm | 0.6 |

## LK 522 Magnet, without handle - Female thread

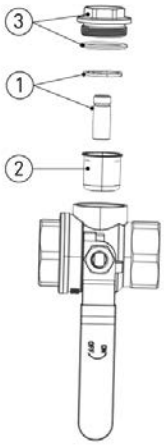



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182342 | F ¾" | 4.5 | 60 | 42 | 30 | 51 | Mesh opening filter: 0.5 mm | 0.3 |
| 182343 | F 1" | 9.0 | 71 | 46 | 36 | 61 | Mesh opening filter: 0.5 mm | 0.5 |
| 182344 | F 1¼" | 16.0 | 84 | 54 | 42 | 75 | Mesh opening filter: 0.5 mm | 0.9 |
| 182345 | F 1½" | 19.0 | 93 | 61 | 47 | 88 | Mesh opening filter: 0.5 mm | 1.3 |
| 182346 | F 2" | 21.0 | 119 | 69 | 60 | 105 | Mesh opening filter: 0.5 mm | 2.1 |

## LK 522 Magnet, without handle - Male thread

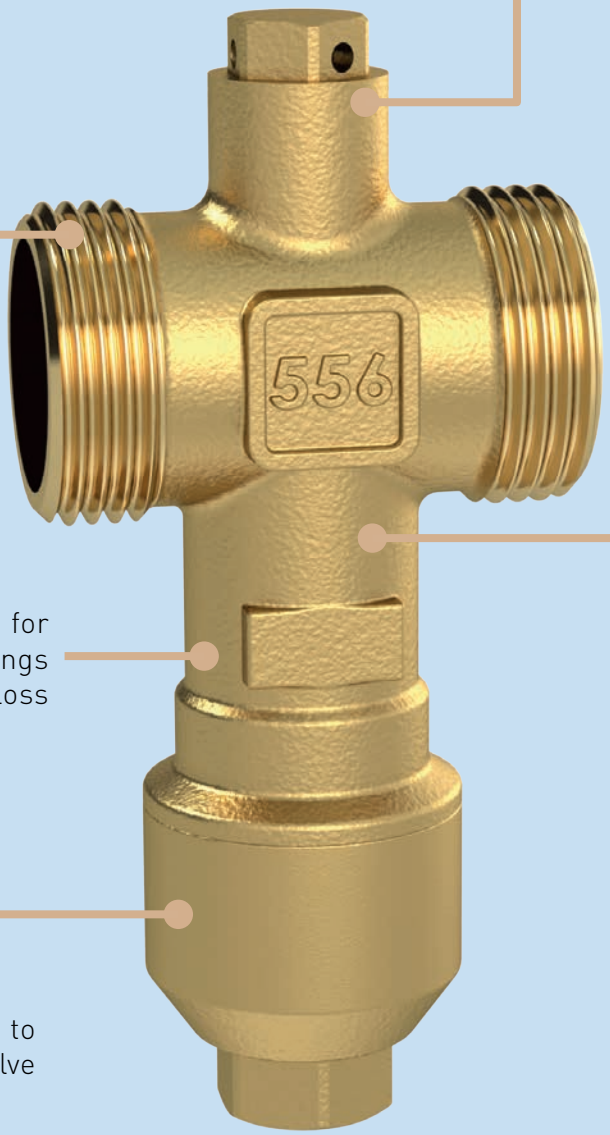



| Article no. | Dim. | Kvs m³/h | A mm | B mm | C mm | D mm | Note | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182438 | M ¾" | 4.5 | 74 | 42 | 39 | 61 | Mesh opening filter: 0.5 mm | 0.4 |
| 182439 | M 1" | 9.0 | 85.5 | 46 | 45.5 | 61 | Mesh opening filter: 0.5 mm | 0.6 |




| Article no. | Article | Position |
|---|---|---|
| 095355 | 522 ¾" Magnet, Spring | 1 |
| 095356 | 522 1" Magnet, Spring | 1 |
| 095357 | 522 1¼" Magnet, Spring | 1 |
| 095358 | 522 1½" Magnet, Spring | 1 |
| 095359 | 522 2" Magnet, Spring | 1 |
| 095414 | Filter ¾", Mesh opening: 0.7 mm | 2 |
| 095415 | Filter 1", Mesh opening: 0.7 mm | 2 |
| 095416 | Filter 1¼", Mesh opening: 0.7 mm | 2 |
| 095417 | Filter 1½, Mesh opening: 0.7 mm | 2 |
| 095418 | Filter 2", Mesh opening: 0.7 mm | 2 |
| 095419 | Filter ¾", Mesh opening: 0.5 mm | 2 |
| 095420 | Filter 1", Mesh opening: 0.5 mm | 2 |
| 095421 | Filter 1¼", Mesh opening: 0.5 mm | 2 |
| 095422 | Filter 1½", Mesh opening: 0.5 mm | 2 |
| 095423 | Filter 2", Mesh opening: 0.5 mm | 2 |
| 095437 | Cover & O-ring ¾" | 3 |
| 095438 | Cover & O-ring 1" | 3 |
| 095439 | Cover & O-ring 1¼" | 3 |
| 095440 | Cover & O-ring 1½" | 3 |
| 095441 | Cover & O-ring 2" | 3 |

# LK 556 AntiFreeze




Protect your heating system from freezing with the **LK 556 AntiFreeze**. Designed for air/water heat pumps, it automatically drains the system if temperatures dip below +3°C, ensuring your heating system remains safe and operational. Boost energy efficiency with available insulation, and enjoy the benefits of a maintenance-free valve.

# Safety Valve

## LK 556 AntiFreeze

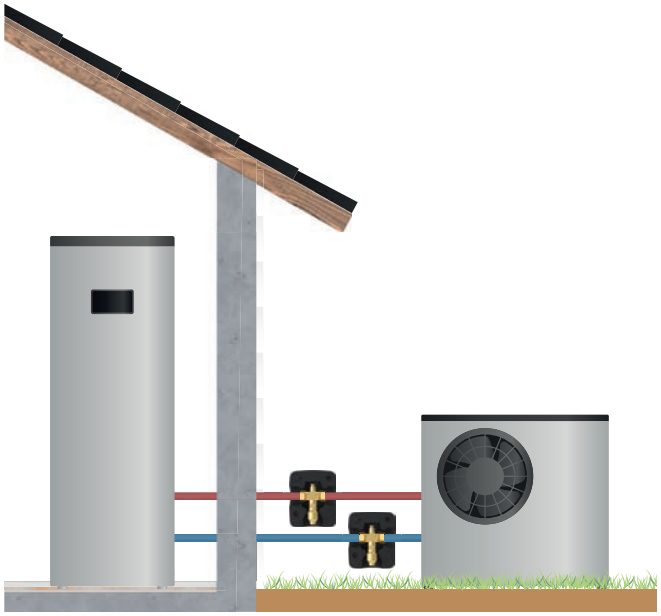
- Protects heating system from freeze damage
- The valve is maintenance-free
- Insulation available as an accessory to save energy

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 0.6 MPa (6 bar) |
| Min. working pressure | 0.05 MPa (0,5 bar) |
| Working temperature | 0-75 °C |
| Opening temperature | 3 °C |
| Ambient temperature | -30-60 °C |
| Storage temperature | -30-60 °C |
| Thread standard | G - male thread |
| Media | Water |
| Material valve body | Brass EN 12165 CW617N |
| Material sealing | EPDM |

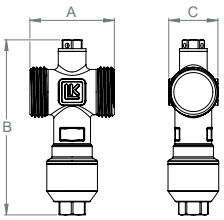
LK 556 AntiFreeze protects your heating system, usually in an air/water heat pump, if the fluid temperature should drop below +3°C by draining the system. This prevents the heating system from freezing.

If the valve opens and drains the system, no action is required to reset the valve, the system can be refilled again as soon as normal circulation in the heating system is resumed.

Insulation is available as an accessory for maximum energy saving. Refer to Accessories & Spare parts.

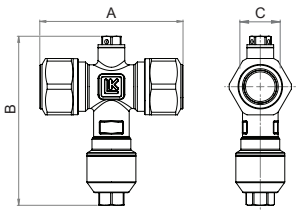


## LK 556 - Male thread



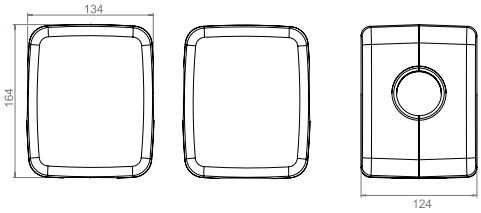

| Article no. | Opening temp. | Dim. | DN | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182740 | 3 °C | M 1" | 25 | 55 | 55 | 114 | 32 | 0.35 |
| 182741 | 3 °C | M 1¼" | 32 | 70 | 55 | 123 | 42 | 0.4 |

## LK 556 - Compression fitting



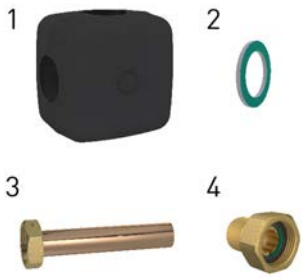

| Article no. | Opening temp. | Dim. | DN | Kvs m³/h | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|---|---|---|
| 182805 | 3 °C | Ø22 | 20 | 40 | 97 | 114 | 32 | 0.65 |
| 182806 | 3 °C | Ø28 | 25 | 40 | 95 | 114 | 42 | 0.65 |
| 182807 | 3 °C | Ø35 | 25 | 45 | 95 | 123 | 42 | 0.7 |

## LK 556 Kit - incl. 2 x LK 556 and insulation




| Article no. | Note | Weight kg |
|---|---|---|
| 182776 | Contains 2 pieces 182740 and 2 pieces 187109 | 0.8 |
| 182777 | Contains 2 pieces 182741 and 2 pieces 187109 | 0.9 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 187109 | Insulation, DN 25-32 | 1 |
| 013010 | Gasket Klingersil C4430 M32 | 2 |
| 013016 | Gasket Klingersil C4430 M25 | 2 |
| 299189 | Flanged pipe - 22 mm, F 1", L=120 mm | 3 |
| 299190 | Flanged pipe - 28 mm, F 1¼", L=120 mm | 3 |
| 095380 | Connection kit M ¾" x F 1" | 4 |
| 095381 | Connection kit F 1" x M 1¼" | 4 |

# Air Vent Valve

## LK 700/705 AeroMat

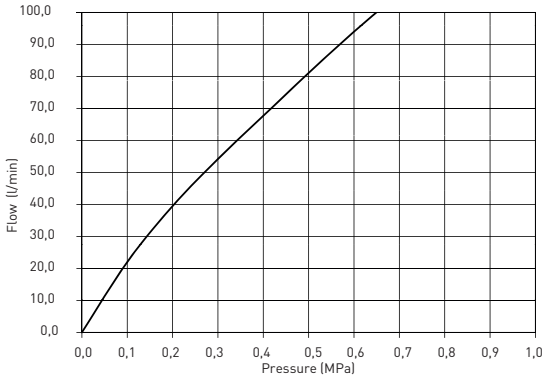
- Stainless steel


| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.6 MPa (16 bar) |
| Working temperature | Min. 5 °C/Max. 130 °C |
| Thread standard | G - male thread,<br>G - female thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Stainless Steel EN 10088 1.4301 |
| Material sealing | PTFE |
| Material ball valve | Brass EN 12165 CW617N, externally sandblasted and nickel-plated<br>Chrome ball |

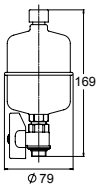
LK 700 and 705 AeroMat are automatic free floating air vent valves suitable for heating and cooling systems where pressure, temperature or media place high performance demands on the air vent valve.

The float vent valve is mounted vertically at a high point in the system. The shut-off valve is to be installed first and thereafter the float vent valve. The system should be flushed through and pressurized before mounting the float vent and opening the shut-off valve. Threads towards the system and the float vent are sealed in the usual manner.

**CHARACTERISTICS**

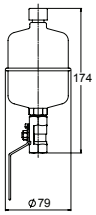



## LK 700 - Male thread

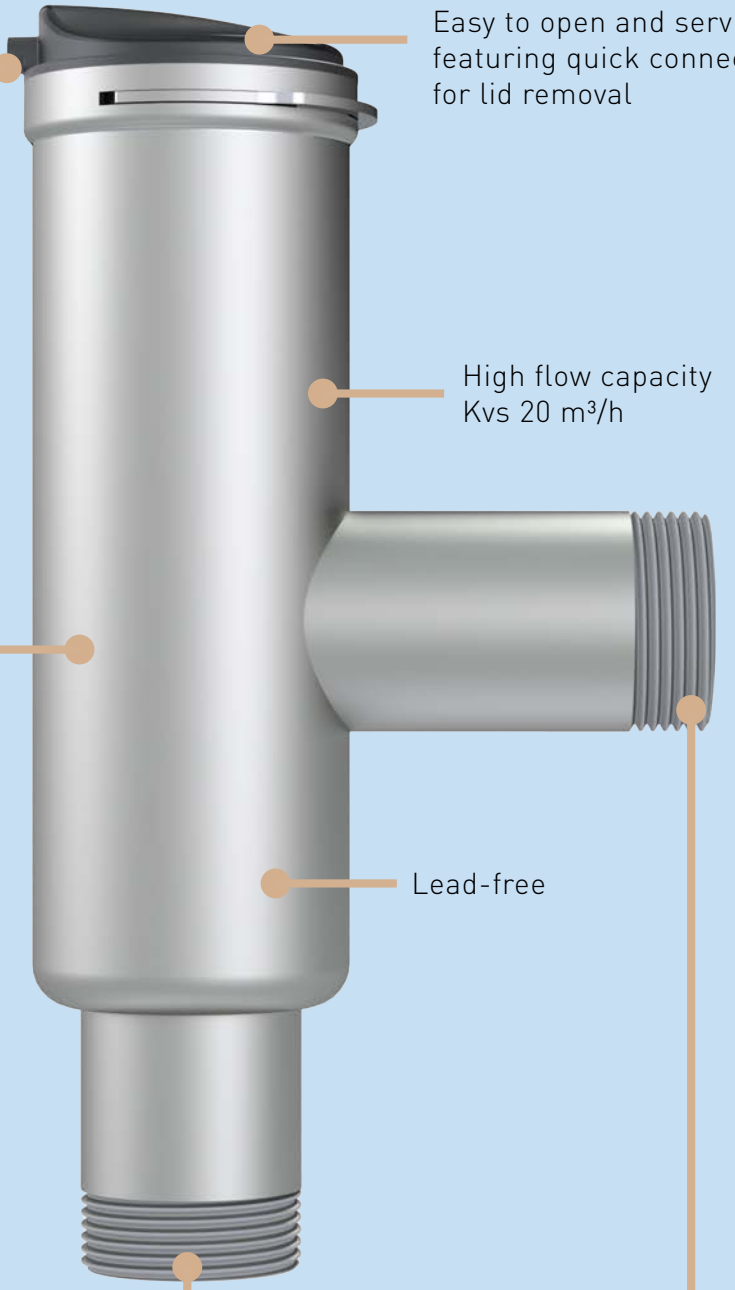

| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 094107 | M ⅜" | without shut-off valve | 0.4 |
| 4845228 | M ⅜" | with shut-off valve | 0.5 |

## LK 705 - Female thread


| Article no. | Dim. | Note | Weight kg |
|---|---|---|---|
| 4845244 | F ⅜" | with shut-off valve | 0.5 |

# LK 770 AeroSafe




**LK 770 AeroSafe** is an automatic venting valve designed to effectively remove air or gas from the system. One possible application is in an air/water heat pump, where it safely removes gas in the event of a potential leak from the refrigerant fluid into the heating system. Made from lightweight, lead-free stainless steel, it's easy to install and service with a removable lid. With a Kvs value of 20 m³/h, low pressure drop, and side discharge to prevent ice formation, it ensures optimal performance and system longevity.

# Air Vent Valve

## LK 770 AeroSafe

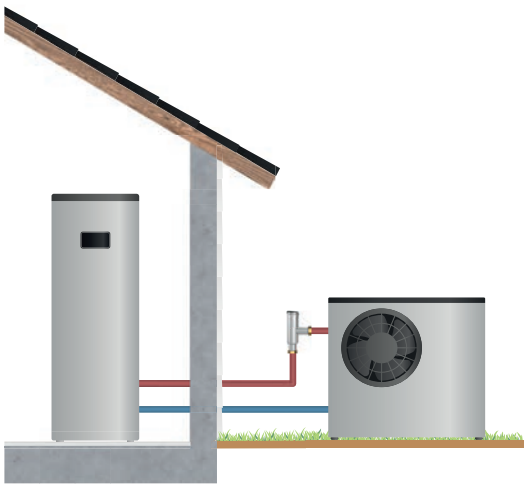
- Low pressure drop
- Lead-free
- Side discharge prevents ice formation

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 6 Bar |
| Working temperature | 0-95 °C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50%<br>Ethanol mixture max. 30% |
| Material valve body | Stainless Steel EN 10088 1.4301 |
| Material external cover | PPE + PS Composite |
| Material sealing | EPDM |

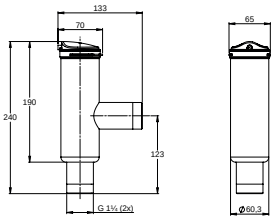
LK 770 AeroSafe is used to continuously remove gases / air from hydraulic circuits.
With an integrated stainless-steel mesh and large area of the chamber, the air / gas can be efficiently collected and automatically released. The venting outlet is located on the side of the top, which minimizes the risk of ice formation and blockage when installed in places where freezing temperatures can occur. However, the product should always be insulated if there is a risk of freezing temperatures.

If cleaning is required, the inner part can be easily dismantled using the quick-release connection.

If LK 770 AeroSafe is installed in connection with, for example, an air/water heat pump that uses flammable refrigerant gases (such as R290), it is important that LK 770 is installed outdoors or in well-ventilated areas where there is no risk for ignition (in case of leakage between the heat exchanger and the circuit with refrigerant gases).
In addition to the top cover and float mechanism, the LK 770 is made of stainless steel to maintain a high quality and avoid hazardous substances such as lead.



## LK 770 - Male Thread




| Article no. | Kvs m³/h | Connection | Weight kg |
|---|---|---|---|
| 182803 | 20 | M 1¼" | 0.9 |

### SPARE PARTS AND ACCESSORIES


| Article no. | Article | Position |
|---|---|---|
| 187965 | 770 Float spare parts kit | 1 |
| 187967 | 770 Clips | 2 |
| 187966 | 770 O-rings | 3 |

# Safety Group

## LK 924 / 925 SafetyGroup

- Many connection options
- Several pressure classes possible
- Compact

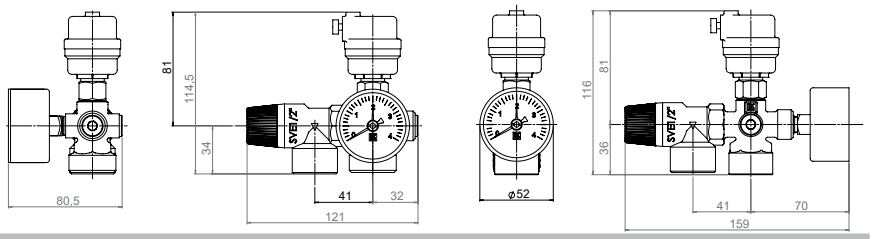
| TECHNICAL DATA | |
|---|---|
| Max. working pressure | See the table below |
| Working temperature | Min 5 °C/Max 110 °C |
| Ambient temperature | Min 5 °C/Max 60 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Material valve body | Brass EN 12165 CW617N |

LK 924 / 925 SafteyGroup is a safety group for heating systems. The safety group contains manifold, manometer, safety valve and an air vent. 924 SafetyGroup has an automatic air vent with a float and 925 SafetyGroup has an automatic air vent with fibre discs. The manifold has two ½" connections for safety valve and for example an expansion vessel, one ⅜" connection for air vent.

The manometer shall be mounted in one of the three ¼" connections, plug the other ¼" connections with supplied plugs. Depending on model the manifold has a female ¾" connection or a male 1" connection towards the heating system.

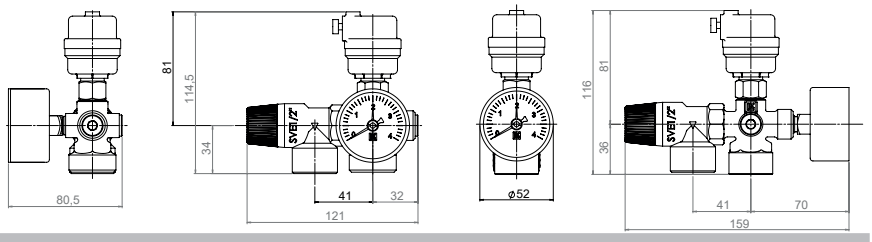
The manometer, air vent with a float and one ½" connection on the manifold are provided with a PTFE seal.
Safety valves in other pressure classes can be supplied upon request.

## LK 924 - Female Thread



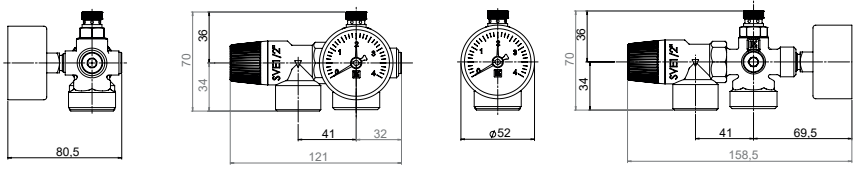

| Article no. | Dim. | Opening pressure | Weight kg |
|---|---|---|---|
| 092309 | F ¾" | 0.3 MPa | 0.6 |

## LK 924 - Male thread



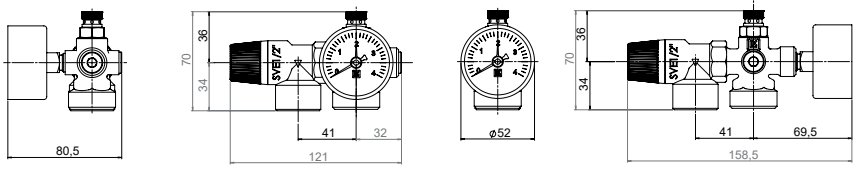

| Article no. | Dim. | Opening pressure | Weight kg |
|---|---|---|---|
| 092310 | M 1" | 0.3 MPa | 0.6 |

## LK 925 - Female thread



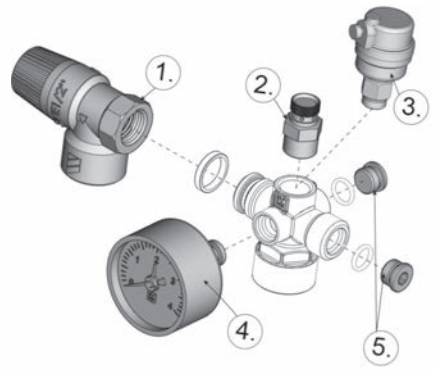

| Article no. | Dim. | Opening pressure | Weight kg |
|---|---|---|---|
| 092307 | F ¾" | 0.3 MPa | 0.5 |

## LK 925 - Male thread




| Article no. | Dim. | Opening pressure | Weight kg |
|---|---|---|---|
| 092308 | M 1" | 0.3 MPa | 0.5 |

### SPARE PARTS AND ACCESSORIES




| Article no. | Article | Position |
|---|---|---|
| 095491 | Safety relief valve 0.3 MPa | 1 |
| 095492 | 750 G10 Ventilating valve | 2 |
| 095497 | 740-G10 Floating air vent | 3 |
| 095279 | Manometer 50-4 bar M ¼" | 4 |
| 095493 | Plug ¼" | 5 |

# Safety Group

## LK 994 SafetyGroup

- Adjustable bracket
- Automatic shutdown when removing expansion vessel
- Self-sealing, no additional thread locking

**TECHNICAL DATA**

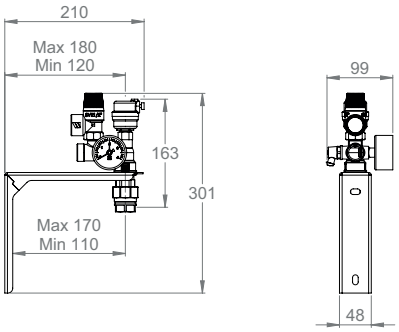
| | |
|---|---|
| Working temperature | 5-110 °C |
| Ambient temperature | 5-60° C |
| Thread standard | G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | Brass EN 12165 CW617N |

The LK 994 SafetyGroup is a safety group for heating systems.

It contains a floating air bleed valve, drain valve, manometer, shut-off valve and wall bracket. During disassembly of the expansion vessel, the shut-off valve automatically closes against the heating system. The bracket is adjustable to fit different expansion tank sizes.

Assembly of the LK 994 is done by the installer to adapt to the specific application. The details are provided with Teflon or O-ring sealing for the easiest possible assembly. The safety group can be rotated 360° for maximum flexibility.

## LK 994 - Male thread




| Article no. | Dim. | Opening pressure | Discharge capacity | Weight kg |
|---|---|---|---|---|
| 092371 | M ¾" | 0.3 MPa | 89 kW | 0.9 |
| 092377 | M ¾" | 0,25 MPa | 78 kW | 0.9 |

**SPARE PARTS AND ACCESSORIES**


| Article no. | Article | Position |
|---|---|---|
| 095279 | Manometer 50-4 bar M ¼" | 1 |
| 095491 | Safety relief valve 0.3 MPa | 2 |
| 095497 | 740-G10 Floating air vent | 3 |
| 095498 | Drainage valve ¼" | 4 |
| 095511 | Shut-off valve, f/m ¾" | 5 |

# Fittings

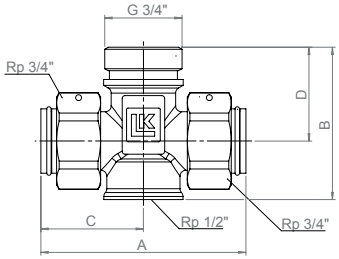
## LK MultiConnection

| TECHNICAL DATA | |
|---|---|
| Max. working pressure | 1.6 MPa (16 bar) |
| Working temperature | Min -20 °C/Max 120 °C |
| Thread standard | Rp - female thread,<br>G - male thread |
| Media | Water - Glycol mixture max. 50% |
| Material valve body | DZR Brass EN 12165 CW625N |

LK MultiConnections are a series of fittings for easy installation. Connections with fixed threads are designed for LK Armatur systems with O-ring seals (except 935).

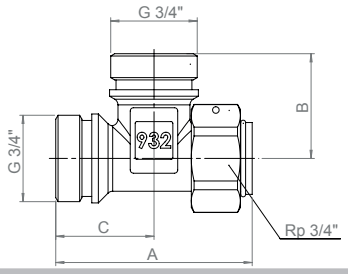
Flat surfaces are sealed with fibre gaskets. See accessories for suitable fibre gaskets, below.

### LK 931 - Male / Female / Rotating nut



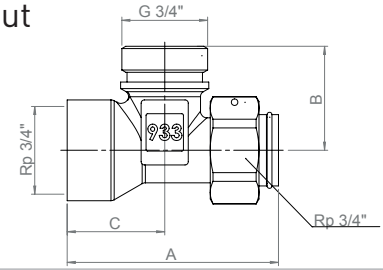

| Article no. | Dim. | A mm | B mm | C mm | D mm | Weight kg |
|---|---|---|---|---|---|---|
| 090090 | M ¾" x F ½" x F ¾" rotating nuts x 2 | 70 | 52 | 35 | 32 | 0.2 |

### LK 932 - Male / Rotating nut



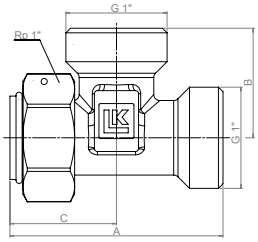

| Article no. | Dim. | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 090091 | M ¾" x F ¾" rotating nut | 60 | 32 | 30 | 0.2 |

### LK 933 - Male / Female / Rotating nut



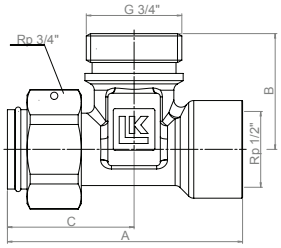

| Article no. | Dim. | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 090092 | M ¾" x F ¾" x F ¾" rotating nut | 65 | 32 | 30 | 0.2 |

## LK 935 - Male / Rotating nut




| Article no. | Dim. | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 090257 | M 1" x M 1" x F 1" rotating nut | 70 | 36 | 35 | 0.2 |

## LK 936 - Female / Male / Rotating nut




| Article no. | Dim. | A mm | B mm | C mm | Weight kg |
|---|---|---|---|---|---|
| 090258 | F ½" x M ¾" x F ¾" rotating nut | 65 | 32 | 35 | 0.2 |

### SPARE PARTS AND ACCESSORIES



| Article no. | Article | Position |
|---|---|---|
| 013035 | Gasket C4400 1" | 1 |
| 013032 | Gasket C4400 ¾" | 2 |
| 012018 | O-ring for M ¾" | 3 |

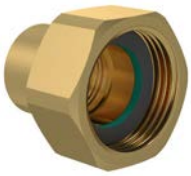
# Transition Fittings

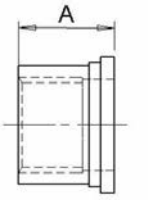
## Transition Fittings

| TECHNICAL DATA | |
|---|---|
| Material union parts | Red brass, according to DIN 1705, ISO 1338 |
| Material nuts | Brass |
| Material, Gaskets | Aramid fibre (type KLINGERsil C-4400) |

Transition fitting kits includes union, nut and gasket.

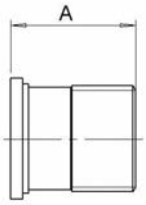
### Female thread / Rotating nut





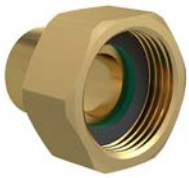

| Article no. | Dim. | A mm | Weight kg |
|---|---|---|---|
| 095364 | F ⅜" x F ¾" | 21 | 0.07 |
| 095365 | F ½" x F 1" | 22 | 0.10 |
| 095366 | F ¾" x F 1¼" | 22 | 0.15 |
| 095367 | F 1" x F 1½" | 25 | 0.17 |
| 095368 | F 1¼" x F 2" | 29 | 0.35 |
| 095369 | F 1½" x F 2¼" | 32 | 0.50 |

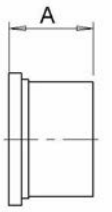
### Male thread / Rotating nut




| Article no. | Dim. | A mm | Weight kg |
|---|---|---|---|
| 095379 | M ½" x F ¾" | 27 | 0.08 |
| 095380 | M ¾" x F 1" | 31 | 0.07 |
| 095381 | M 1" x F 1¼" | 35 | 0.01 |
| 095382 | M 1¼" x F 1½" | 39 | 0.02 |
| 095383 | M 1½" x F 2" | 41 | 0.02 |

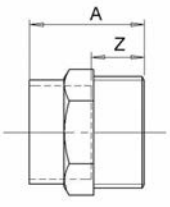
## Internal solder / Rotating nut






| Article no. | Dim. | A mm | Weight kg |
|---|---|---|---|
| 095371 | 15 mm x F ¾" | 19 | 0.02 |
| 095372 | 18 mm x F ¾" | 17 | 0.03 |
| 095373 | 18 mm x F 1" | 19 | 0.04 |
| 095374 | 22 mm x F 1" | 19 | 0.06 |
| 095375 | 28 mm x F 1¼" | 25 | 0.08 |
| 095376 | 35 mm x F 1½" | 27 | 0.07 |
| 095377 | 42 mm x F 2" | 31 | 0.02 |
| 095378 | 54 mm x F 2 ½" | 37 | 0.02 |

## Internal solder / Male thread




| Article no. | Dim. | A mm | Z mm | Weight kg |
|---|---|---|---|---|
| 2008134 | 15 mm x F ½" | 25 | 14 | 0.03 |
| 2008217 | 18 mm x F ¾" | 26 | 13 | 0.06 |
| 2008241 | 22 mm x F ¾" | 29.5 | 15 | 0.05 |
| 2008258 | 22 mm x F 1" | 30 | 15 | 0.06 |
| 2008282 | 28 mm x F ¾" | 41 | 22 | 0.1 |
| 2008290 | 28 mm x F 1" | 36 | 17 | 0.1 |
| 2008332 | 35 mm x F 1¼" | 43 | 20 | 0.1 |
| 2008381 | 42 mm x F 1½" | 48 | 21 | 0.2 |
| 2008423 | 54 mm x F 2" | 58 | 26 | 0.3 |

# Prefabricated pipes

## Prefabricated pipes

| TECHNICAL DATA | |
|---|---|
| Thread standard | Rp - female thread |
| Material pipe | Stainless<br>Copper |

Prefabricated pipes.

### Flanged stainless pipe - for use between flat sealing connection to compression/pressfitting etc.

| Article no. | Dim. | Dim. 2 | Length | Weight kg |
|---|---|---|---|---|
| 299103 | Pipe 15 mm | Rotating nut F 20 | L=120 mm | 0.09 |
| 299104 | Pipe 18 mm | Rotating nut F 20 | L=120 mm | 0.09 |
| 299105 | Pipe 22 mm | Rotating nut F 25 | L=120 mm | 0.12 |
| 299106 | Pipe 28 mm | Rotating nut F 32 | L=120 mm | 0.17 |
| 299107 | Pipe 28 mm | Rotating nut F 40 | L=120 mm | 0.22 |

### Flanged copper pipe - for use between flat sealing connection to compression/pressfitting etc.

| Article no. | Dim. | Dim. 2 | Length | Weight kg |
|---|---|---|---|---|
| 299187 | Pipe 15 mm | Rotating nut F 20 | L=120 mm | 0.09 |
| 299188 | Pipe 18 mm | Rotating nut F 20 | L=120 mm | 0.09 |
| 299189 | Pipe 22 mm | Rotating nut F 25 | L=120 mm | 0.12 |
| 299190 | Pipe 28 mm | Rotating nut F 32 | L=120 mm | 0.17 |
| 299191 | Pipe 28 mm | Rotating nut F 40 | L=120 mm | 0.22 |

# Flanged copper pipe - for use between flat sealing connection

| Article no. | Dim. | Dim. 2 | Length | Weight kg |
|---|---|---|---|---|
| 298972 | Pipe 22 x 1 | Rotating nut F 25 | L=21 mm | 0.1 |
| 298992 | Pipe 18 x 1 | Rotating nut F 20 | L=20 mm | 0.08 |
| 298993 | Pipe 28 x 1.2 | Rotating nut F 32 | L=20 mm | 0.14 |
| S180810 | Pipe 35 x 1.5 | Rotating nut F 40 | L=30 mm | 0.16 |

## SPARE PARTS AND ACCESSORIES

| Article no. | Article | Position |
|---|---|---|
| 013012 | Gasket Klingersil C4430 M20 | 1 |
| 013016 | Gasket Klingersil C4430 M25 | 1 |
| 013010 | Gasket Klingersil C4430 M32 | 1 |
| 013015 | Gasket Klingersil C4430 M40 | 1 |

# Easy to Choose

## From concept to finished product

### Customised Pipe Systems
We process pipes, develop systems, and produce components tailored to your specifications using state-of-the-art machinery.

### Wide Range of Applications
Our solutions are used in heating and tap water systems, hospital equipment, commercial dishwashers, and more.

### Optimised Installation
Fully customised solutions designed to streamline installation times and reduce complexity.

### Expertise in Key Areas
We excel in polymers, mechanical engineering, electronics, and compliance with legislation and directives.

### Complete Fabrication
We handle everything from pipe fabrication to the assembly of complete units in our prefabrication department.

### From Concept to Completion
Our team of developers, sales staff, and specialists will guide you through every step, from concept to the finished product.

### Flexible Material Choices
We offer a large selection of materials to suit your specific needs.

### Collaborative Approach
Let's explore your prefabrication needs together. Schedule a no-obligation meeting to discover how we can improve your solutions.

Concept | Project | Testing | Finished product | Follow-up with customer

# Easy to Choose

Building a sustainable tomorrow together

# Simpler, smarter, more sustainable

**At LK Armatur, sustainability drives everything we do. Our energy-efficient valves and heating solutions serve our customers and protect the planet by using sustainable materials, minimizing waste, and ensuring long-lasting performance.**

Our goal is simple: reduce our environmental impact while delivering the high-quality products our customers rely on. Sustainability fuels our innovation, leading us to lower $CO_2$ emissions associated with energy use, reduce waste, and phase out harmful substances - all steps toward a greener future.

### Smart Production, Lasting Design

Our production is energy-efficient and waste-conscious, with practices like recycled brass usage that conserve resources without compromising quality. Sustainability starts at design, where we create durable, resource-efficient products that benefit both projects and the planet.

### Collaboration for Change

By partnering with customers and suppliers, we're building a value chain aimed at net zero emissions by 2050. Nearly all of our suppliers are based within the EU, supporting a more sustainable and efficient supply chain.

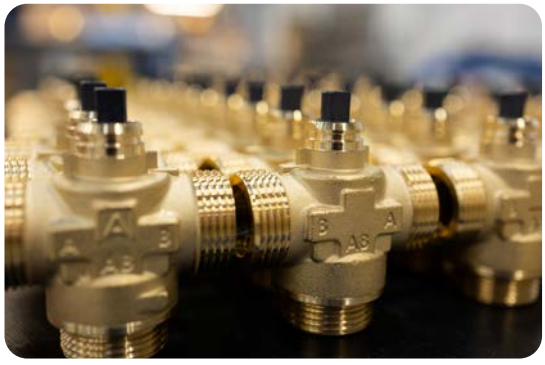
### Moving Forward

Guided by curiosity and a commitment to better solutions, we're investing in fossil free energy and circular practices. Together with our team and partners, we're shaping a smarter, more sustainable future for people and the planet.

### What Makes Our Products Sustainable?

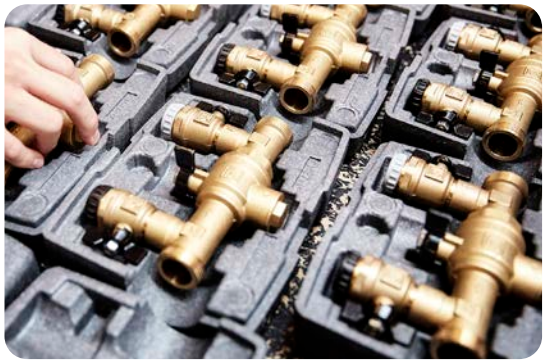
- Materials that Last: We choose tough, resource-efficient materials to extend product life and reduce replacements.
- Energy-Efficient Processes: Our production is designed to save energy, minimize waste, and includes a high degree of automation throughout the value chain.
- Eco-Friendly Designs: Every product is crafted with sustainability in mind, so you can build greener, more efficient systems.

- Elisabeth Johansson
Sustainability Specialist
LK Armatur



LK 525 MultiZone - made with recycled brass

LK 160 SmartBio® - engineered for energy efficiency



LK 521 MultiFill® - built to last for a lower environmental impact

Packaged with sustainable, recyclable materials

# For the simpler, smarter everyday

## LK

Simpler. Smarter. More sustainable. At LK, we believe there's a better way to do everything. That's why – from water, heating and hydronic solutions to pipe extrusion – we push for innovation over status quo and simplicity over complexity. It's a belief all of us at LK apply to every product and solution we create.

### Our history

Founded in 1910, LK is a family business, working internationally in the heating, water and sanitation industry. A market leader in Sweden, the group currently employs approximately 400 people and actively increasing sales of products, systems and solutions in the Nordic region, Europe and the United States. LK works with continuous improvement and strives for a sustainable, long-term and respectful relationships with its employees, suppliers and customers.

### Our companies

**LK Armatur** is a leader in Europe, producing millions of valves per year for the global HVAC market. Beyond individual products, we understand how all parts interact in your complete application. From standard to sophisticated customizations of valves, controllers, components and prefabricated units, our full-spectrum expertise makes it easy to get the results you need today, while anticipating your needs tomorrow.

**LK Pex** is a leading OEM manufacturer of high-quality plastic pipes for the HVAC industry, particularly housing applications. Our proprietary production technology for cross-linking PE-Xa tubes gives pipes unique flexibility and compressive strength. With this and every advancement we make, we aim to simplify your everyday challenges for smarter results today and tomorrow.

**LK Systems** is the leading manufacturer of easy-to-install systems for heating and tap water distribution in the Nordics. Through our prefabrication unit, we also provide tailor-made solutions that simplify the installation process even further.

For more information about the LK group, visit **www.lk.nu**

# LK Armatur
# - A One-Stop Supplier

LK Armatur was founded in 1985 when the LK Group increased its focus on supplying manufacturers of heaters and hot water heaters with valves and components.

We are a complete supplier of customised products and solutions and we produce millions of valves annually. We have advanced pipe manipulation & bending facilities for both stainless steel and copper pipes and our accessories come from leading suppliers in Europe. Our extensive product range consists of 4 product areas:

- Valves
- Electronic Heat Regulation
- Prefabrication
- Accessories


**Helsingborg, Sweden;** Our Main Office. We develop and manufacture most of our products here.
**Bad Oyenhause, Germany;** Main Office for Germany sales company, LK Armatur Deutschland GmbH.
**Zrenjanin, Serbia;** Production unit focusing on pipe prefabrication.

Our aim is to provide high quality, technically advanced products that are easy to install and uncomplicated to use. We constantly develop and design new products and the demands are high to meet our customers' as well as our own high expectations.

We focus on customers who see energy saving and environmental awareness as a matter of course. The risk of energy shortage, the steady increase in energy prices and the problem of global warming have created a great need for cost and energy efficient heating systems in which renewable energy sources can be utilized. The common denominator for our customers is their stringent requirements for quality, customization and delivery reliability.

Our management system complies with ISO 9001:2008 and ISO 14001:2004 for the development, manufacture and distribution of valves, electronic heating controls and prefabricated systems.

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order@lkarmatur.se

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www.lkarmatur.com