## **CubicMeter**

# <u>K</u>

#### LK CubicMeter

- Plug & Play installation with low maintenance
- Wireless communication, Wireless M-Bus Mode C1 868 MHz (EN-13757 Standard)
- Compatible with LK Pex and PAL pipes dim. 16 25.

Non-invasive water & leakage monitor

- Eliminates the need for ultrasonic gel, which dries out quickly
- Up to 98 % accuracy & MID/OIML R-49 Compliant
- Up to 10 years battery life
- Plug & Play installation with low maintenance
- Compatible with LK Pex and PAL pipes dim. 16 25.
- Drip & leakage detection
- Wireless communication, Wireless M-Bus Mode C1 868 MHz (EN-13757 Standard) According to studies, implementation of individual metering decreases the water consumption with approximately 30%. For a normal average family that decrease not only water consumption, but also carbon dioxide emissions and possible leakage costs.



Art	icle	Designation	Dim.	Length	Communication	Packaging
518	3 24 03	Q3=2,5 m3/h	16-25	86	Wireless M-Bus – Mode C1 868 MHz (EN-13757 Standard)	1/1





# **Accessories**

## LK Distance pipe 110

LK Distance pipe 110 is used as a spacer for future connection of water meter or heater volume indicator in LK Manifold Cabinet UNI. Two fibre gaskets included. LK Distance Pipe 110 works with LK CubicMeter, the meter can easily be placed on the distance pipe. The distance pipe is manufactured in PPSU.



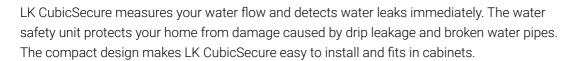
Article	Dim.	Length	Packaging
188 26 66	3/4"	110 mm	1/60

# <u>IK</u>

# **Water Safety Unit**

#### LK CubicSecure

- · Smart water safety unit
- · Smallest construction dimensions on the market
- Plug-Play installation





LK CubicSecure works completely on its own and does not need any connection to the internet. If, on the other hand, you want to receive notifications about alarms and the opportunity to see your individual water consumption, the product needs to be connected to Wi-Fi. When the device is connected, you can control LK CubicSecure remotely through LK's App.

LK CubicSecure is developed and manufactured in Sweden with advanced technology for water measurement.



Article	Dim.	Length	Color	Packaging
188 26 67	¾" EuroCone	110	White	1

#### LK CubicDetector

LK CubicDetector is a leak detector that can detect water leakage in a local area, for example under a dishwasher or similar. It can be connected to CubicSecure or used on its own.

Article	Intended for	Communication	Temp. range	Packaging
188 26 88	CubicSecure	2.4 GHz Wi-Fi, (802.11bgn)	-25°C - 60°C	1/1



# Leakage Unit



#### LK WSS Mini Start

LK WSS Mini Start is a package with a master unit, a G3/4" motor valve and a sensor. The package can be used where you want to turn off the water when a water leak is detected, for example at a water machine or a coffee machine. The system is powered by a 5V power adapter. Several sensors can be connected for detection on a larger surface.



Article Dim. No. of channels Communication Packaging

#### LK WSS Mini Standard

LK WSS Mini Standard is a package with a main unit, a G1/2"/G3/4"/G1" motor valve, a sensor and one leak detector with two sensors. The package can be used where you want to turn off the water when a water leak is detected, for example a kitchen. The system is powered by a 5V power adapter. Several sensors can be connected for detection on a larger surface. The leak detector has two sensors, but it is possible to add on more. If the sensor detects water, it sends a signal to the master unit, which turns the water off. You can also complement the system with more leak detectors, if you want to monitor multiple locations.



The leak detector communicates wireless, and is battery or externally powered. In total, a maximum of 16 control panels or leakage detectors can be connected to the main unit.

Article Dim. No. of channels Communication Packaging

#### LK WSS Mini Plus

LK WSS Mini Plus is a package with a master unit, a G1/2"/G3/4"/G1" motor valve, a sensor, one control panel and one leak detector with two sensors. The package can be used where you want to turn off the water when a water leak is detected, for example a kitchen. The system is powered by a 5V power adapter. Several sensors can be connected for detection on a larger surface. With the control panel, you can turn off the water directly or with delay and turn it back on. The leak detector has two sensors, but it is possible to add on more. If the sensor detects water, it sends a signal to the master unit, which turns the water off. You can also complement the system with more leak detectors, if you want to monitor multiple locations.



The control panel and leak detector communicates wireless, and is battery or externally powered. In total, a maximum of 16 control panels or leakage detectors can be connected to the main unit.

Article Dim. No. of channels Communication Packaging

#### LK WSS Mini Plus

LK WSS Mini Plus is a package with a master unit, a G1/2"/G3/4"/G1" motor valve, a sensor, one control panel and one leak detector with two sensors. The package can be used where you want to turn off the water when a water leak is detected, for example a kitchen. The system is powered by a 5V power adapter. Several sensors can be connected for detection on a larger surface. With the control panel, you can turn off the water directly or with delay and turn it back on. The leak detector has two sensors, but it is possible to add on more. If the sensor detects water, it sends a signal to the master unit, which turns the water off. You can also complement the system with more leak detectors, if you want to monitor multiple locations.



The control panel and leak detector communicates wireless, and is battery or externally powered. In total, a maximum of 16 control panels or leakage detectors can be connected to the main unit.

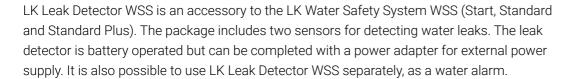
Article	Dim.	No. of channels	Communication	Packaging
AI LICIC	DIIII.	140. Of Charmers	Communication	i ackaging

# **K**

# Water alarm

#### LK Leak Detector WSS

- More sensors can be connected.
- Wired or wireless communication.
- · Includes temperature monitoring.



In case of a water leak the detector emits a sound

It is possible to connect more sensors to cover a larger area. In total, a maximum of 16 control panels or leakage detectors can be connected to the master unit.

The leak detector communicates wireless or with cables. Two AA batteries are included.





#### Accessories



#### LK Control Panel WSS

LK Control Panel WSS is an accessory to the LK Water Safety System if you want to add an extra control panel or as a spare part. With the control panel, you can turn off the water directly or with delay and turn it back on.

The control panel communicates wireless or with cables, and is battery or externally powered. In total, a maximum of 16 control panels or leakage detectors can be connected to the master unit.



Two AAA batteries are included.

#### bimobject

Article	Voltage	Communication	Packaging
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#### LK Leak Detector WSS

- More sensors can be connected.
- Wired or wireless communication.
- Includes temperature monitoring.

LK Leak Detector WSS is an accessory to the LK Water Safety System WSS (Start, Standard and Standard Plus). The package includes two sensors for detecting water leaks. The leak detector is battery operated but can be completed with a power adapter for external power supply. It is also possible to use LK Leak Detector WSS separately, as a water alarm.

In case of a water leak the detector emits a sound.

It is possible to connect more sensors to cover a larger area. In total, a maximum of 16 control panels or leakage detectors can be connected to the master unit.

The leak detector communicates wireless or with cables. Two AA batteries are included.



#### LK Rail WSS LK Manifold Cabinet UNI

07/09/25 lksvstems.se



LK Rail WSS Manifold Cabinet UNI is secured using the supplied bolts in the two upper M8 nuts located on the back of the manifold cabinet. The rail is suitable for UNI cabinets 550 mm wide. The LK Master Unit WSS is secured in one of the two positions on the rail using four screws supplied. The master unit can also be mounted in another position, but this requires a different type of screw (not supplied).



Article Intended for Packaging

#### LK Sensor with branch cable WSS

LK Sensor with branch cable WSS is an accessory to the LK Leak Detector WSS or LK Master Unit WSS used to connect several sensors to the same unit for detection on a larger area. LK Sensor with branch cable WSS has an extra connection to connect the sensor that comes with the device or if you want to add more sensors.



Article Length Connection Cable length Packaging

#### LK Branch cable WSS

LK Branch cable WSS is an accessory to LK Sensor WSS and LK Sensor with branch cable WSS if you want to connect more sensors to the unit.



Article Connection Packaging

#### LK Extension cable WSS

LK Extension Cable WSS is an accessory to the LK Sensor WSS and LK Sensor with branch cable WSS that can be used if the sensor cable is too short.



Article	Connection	Cable length	Packaging
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#### LK Power supply 5 V

LK Power supply 5 V is an accessory to LK Leak Detector WSS or a spare part to LK Webserver. Is used instead of batteries to power supply the leak detector.

Article	Voltage	Cable length	Dackaging
Article	Voltage	Cable length	Packaging



## LK Pressure sensor with T-piece 3/4" WSS

LK Pressure sensor with T-piece G20 WSS can be installed after the valve on the LK Water Safety System WSS. With the pressure sensor installed, it is possible for the system to detect hidden leaks when the water is off. The pressure sensor comes with a cable and should be mounted in the T-piece  $\frac{1}{2}$ " thread.



A	D:	0	Cable length	Daaleanina
Article	DIM.	Connection	Cable length	Packaging

#### **LK Webserver**

LK Webserver is used to access and control LK Room Temperature Control ICS.2 and LK Water Safety System from your mobile phone, tablet or computer. An intuitive interface makes it easy to both monitor, manage and control all the functions of the underfloor heating system through a web page. The system works with all the common market systems such as smartphones, tablets or computers with associated operating systems and web browsers such as Android, iPhone, iPad, Windows Phone, Windows PC, Mac, Linux, Firefox, Safari, Internet Explorer.



The first start-up/installation of the web server normally requires a Windows computer.

LK Webserver can also be used as a wireless communications bridge. This wireless communications bridge function is used when the Internet is unavailable in the property at the underfloor heating installation's receiver unit. Two web servers are required where one web server is installed at the underfloor heating installation's receiver unit and the other at the property's Internet connection. A wireless communication bridge is set up between the web servers.







Article	Width	Height	Depth	Packaging
241 70 35	137 mm	62 mm	31 mm	1

#### LK Input link WSS

The LK Input Link WSS is an accessory for the LK Water Safety System WSS (packages Start, Standard and Standard plus). Used for wireless communication between the master unit and another system such as a home alarm in order to turn the water on and off. A timer function with delayed shutdown can also be used.



This product is supplied with a cable for connecting the device to external systems, along with a 5V power supply.

A total of max. 16 wireless or wired devices can be connected to the master unit in WSS.

#### LK Bracket WSS LK Manifold Cabinet UNI

With LK Bracket WSS LK Manifold Cabinet UNI it is easy to attach LK Master Unit WSS in the rails on the cabinet and adjust sideways. The bracket has two mounting modes, so that the master unit can be attached horizontally or vertically. Two screws are included to attach the master unit to the bracket.



Article Packaging

#### LK Electric Valve 5V WSS

LK Elecric valve 5V WSS is available in three dimesions G15, G20 and G25 with internal thread. It is used for the LK WSS Mini and can be installed to the main unit if you also want to switch off the hot water or be used as a spare part for the system. The engine has an emergency opening knob and a position indicator. Opening and closing takes place with 5 V direct current. The valve is made of SS304 stainless steel.



Article Dim. Cable length Packaging

#### LK Electric Valve 5V WSS

LK Elecric valve 5V WSS is available in three dimesions G15, G20 and G25 with internal thread. It is used for the LK WSS Mini and can be installed to the main unit if you also want to switch off the hot water or be used as a spare part for the system. The engine has an emergency opening knob and a position indicator. Opening and closing takes place with 5 V direct current. The valve is made of SS304 stainless steel.



Article Dim. Cable length Packaging

#### LK WSS Mini

Article	Voltage	No. of channels	Communication	Packaging
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#### LK Bracket WSS LK Manifold Cabinet UNI

With LK Bracket WSS LK Manifold Cabinet UNI it is easy to attach LK Master Unit WSS in the rails on the cabinet and adjust sideways. The bracket has two mounting modes, so that the master unit can be attached horizontally or vertically. Two screws are included to attach the master unit to the bracket.



Article Packaging

# Spare parts



#### LK Sensor WSS

LK Sensor WSS is an accessory to the LK Leak Detector WSS or LK Master Unit WSS used to detect leakage.



The length of the detetor is 0,4 m and the connection cable 1 m, in total 1,4 m.

Article Length Cable length Packaging
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#### LK Pressure sensor G1/2" 4-20 mA

LK Pressure sensor  $\frac{1}{2}$ " 4-20 mA can be connected to the Master Unit of the LK Water Safety System WSS. With the pressure sensor installed it is possible to detect minor drip leaks when the water is turned off. The pressure sensor is supplied with a cable.





#### LK T-Piece 34" m x 1/2" fm x 34" m WSS

LK T-piece ¾" WSS can be connected after the valve to the LK Water Safety System WSS. With the pressure sensor installed it is possible to detect minor drip leaks when the water is turned off.

The ¾" threads are adapted to LK PressPex Press connection with EuroCone. Made of DZR brass



Article Dim.

## **LK USB Programmer WSS**

USB Programmer with cable 1 m for software updating of LK Water Safety System WSS devices.



Article Packaging

#### **LK Antenna WSS**

LK Antenna WSS is a spare part to LK Master Unit WSS (Art.no 40100)

Article Length Packaging



## LK Power supply 12 V WSS

LK Power Supply 12 V is an accessory to LK Water Valve and a spare part to LK Master Unit WSS



Article Voltage Cable length Packaging

#### LK Electric Valve 12 V WSS

LK Electric valve 12 V with  $\frac{1}{2}$ ",  $\frac{3}{4}$ " or 1" internal thread for LK Water Safety System WSS. The valve can be connected to the master unit if you also want to turn off the hot water or be used as a spare part to the system. The motor has a knob for emergency release and a position indicator. Opens and closes with 12 V DC.



The valve is made of stainless steel SS304.

|--|--|--|

# Thermostatic mixing valve

# K

#### LK 550 AquaMix

LK 550 AquaMix is a mixing valve for hot water preparation with a thermal insert that regulates the supply of cold water so that the desired temperature is reached. With a non-return valve installed in the cold water line, self-circulation is prevented - see under accessories. The valves in dimension G  $\frac{1}{2}$ " external thread and 15 mm compression ring connection have an air screw for easy emptying of smaller water heaters.



Arrows on the valve body indicate flow direction.

KV = incoming cold water

VV = incoming hot water

BV = outgoing hot water

Working temperature: Min. +5°C/Max. +90°C Mixing temperature: Min. +38°C/Max. +65°C Max. working pressure: 1.0 MPa (10 bar)

Article	Kvs m³/h	Packaging
492 07 16	1,2	1/25
492 07 08	2,2	1/20





#### LK 551 HydroMix - Compression fitting

LK 551 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



When fitted on top of boiler/storage tanks with built-in water heaters the valve should be installed with some space between boiler/storage tank and valve so as not to let the function of the valve be affected by heat radiation.

The valve knob is used to set the desired warm water temperature within the specified range. The protective cap prevents unintentional changes of the temperature setting.

Article	Kvs m³/h	MPa	Temp. range A mm	B mm	C mm	D mm	Dim.	Packaging
492 07 18	1,6	1,0	+35°C-+65°C 85	52	106	45		1/12
492 00 05	3,5	1,0	+35°C-+65°C110	80	138	55	28 mm	1





#### LK 551 HydroMix - Internal thread

LK 551 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

When fitted on top of boiler/storage tanks with built-in water heaters the valve should be installed with some space between boiler/storage tank and valve so as not to let the function of the valve be affected by heat radiation.

The valve knob is used to set the desired warm water temperature within the specified range. The protective cap prevents unintentional changes of the temperature setting.

Article	Kvs m³/h	MPa	Temp. range	A mm	B mm	C mm	D mm	Packaging
492 00 00	1,5	1,0	+35°C-+65°C	70	99	43.5	45	1/12
492 00 01	1,6	1,0	+35°C-+65°C	70	99	43.5	45	1/12

# S51 HydroMa<sup>®</sup>

#### LK 551 HydroMix - External thread

LK 551 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

When fitted on top of boiler/storage tanks with built-in water heaters the valve should be installed with some space between boiler/storage tank and valve so as not to let the function of the valve be affected by heat radiation.

The valve knob is used to set the desired warm water temperature within the specified range. The protective cap prevents unintentional changes of the temperature setting.

Article	Kvs m³/h	MPa	Temp. range	A mm	B mm	C mm	D mm	Packaging
492 00 02	1,3	1,0	+35°C-+65°C	70	42.5	99	45	1/12
492 00 03	1,5	1,0	+35°C-+65°C	70	43.5	99	45	1/12
492 00 04	1,6	1,0	+35°C-+65°C	70	43.5	99	45	1/12



#### LK 551 Connection kit

Connection kit to LK Hydromix 551

Article	Dim.	Note	Packaging
492 00 07	½"X¾"	2 check valves	1/12
492 00 08	<sup>3</sup> ⁄ <sub>4</sub> "x1"	1 check valve	1/12



#### LK Check Valve 551

LK Check valve 551 is a cartridge check valve that can be used as a check valve in heating and

cooling system.

The check valve is intended for pre-assembly in copper or steel pipes and also functions as a insert. Observe the flow direction.

The check valve requires no maintenance.

Article	Dim.	Width	Height	Depth	Packaging
492 00 10	22 mm	21	34	19,8	1/20



#### LK Check Valve 551

LK Check valve 551 is a cartridge check valve that can be used as a check valve in heating and

cooling system.

The check valve is intended for pre-assembly in copper or steel pipes and also functions as a insert. Observe the flow direction.

The check valve requires no maintenance.

Article	Dim.	Width	Height	Depth	Packaging
492 00 10	22 mm	21	34	19,8	1/20



## Valve combination



#### LK 548 AquaKit

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  $\frac{1}{2}$ " for fitting of a safety relief valve, vacuum breaker or filling valve.



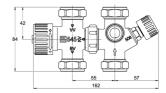
Arrows on the valve body indicate the direction of the flow.

KV = incoming cold water

VV = incoming hot water

BV = outgoing warm waterFemale 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.

When fitted on top of boiler/storage tanks with built-in water heaters the valve combination should be installed with some space between boiler/storage tank and valve combination so as not to let the function of the valve combination be affected by heat radiation. The valve knob is used to set the desired warm water tempe-rature within the range of 38 °C to 65 °C. The maximum temperature can be calibrated as follows:



#### Increasing the maximum temperature:

Turn the knob anticlockwise to (+). Loosen the screw and move the knob out to the side. Then turn the knob clockwise to (-) without it being engaged. Adjustments are carried out in small steps. A  $\frac{1}{4}$  turn corresponds to approximately 7 °C. Reinstall the knob and check that it engages with the teeth. Tighten the screw and then turn the knob to max (+). Max calibration for increasing the temperature is a  $\frac{1}{4}$  turn.

#### Reducing the maximum temperature:

Do the procedure in reverse. Turn the knob clockwise to (-) and the disengaged knob anticlockwise to (+).

Article	c/c	Kvs m³/h	Packaging
431 17 32	55 mm	1,8	1/24

#### **Inlet Valves**



#### LK 508 HydroFill

LK 508 HydroFill is a combination valve for hot water heaters. The valve housing has a shut-off to incoming cold water and an integrated non-return valve to prevent flowback of hot water to incoming cold water pipes. The valve housing has two connections with internal thread G  $\frac{1}{2}$ " for installation of safety, vacuum or filler valves.

Arrows on the valve body indicate the direction of flow. Female threads are designed for the LK Armaturs system med O-ring seal. Other components are fitted in the usual way. When fitting to a male thread connection, adapter LK 373 is used - see under Accessories. It is easier to fit the compression fitting if a lubricant is applied to the thread and bevel. Tighten first by hand and then with a box spanner. Number of turns to be tightened with a spanner: See separate data sheet for compression fittings. Soft pipes are to be fitted with a support sleeve. The valve requires no maintenance. The installation should be checked regularly.



Article	Dim.	Kvs m³/h	A mm	B mm	C mm	D mm	E mm	F mm	Packaging
431 17 30	15 mm	2,1	57	76	54	42	33	38	1/50
431 17 31	22 mm	2,9	57	83	51	50	36	41	1/24

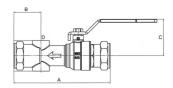
#### LK 608 HydroFill

LK 608 HydroFill is a combination valve for hot water heaters. The valve housing has a shut-off to incoming cold water and an integrated non-return valve to prevent flowback of hot water to incoming cold water pipes.

The valve housing has two component connections with internal thread G ½". One of the connections for installation of e.g. a vacuum valve or filler valve is provided with a plug sealed with an O-ring. Connection for safety valve according to the table. The thread is sealed in the usual way. The manifold has compression fitting for installation to copper or steel pipes. Installation of the compression fitting is facilitated if lubricant is applied to the thread and chamfer. Tighten manually as far as possible, then use a fixed wrench. Tightening, number of turns with wrench plus other technical data, please see separate data sheet for Compression fittings. Soft pipes are fitted with support sleeves. The valve requires no maintenance. The installation should be checked regularly.



Article	Kvs m³/h	A mm	B mm	C mm	Packaging
431 17 19	8,2	165	38	54	1/24
431 17 20	14	185	42	60	1/10
431 17 21	42	220	48	76	1/10
431 17 22	67	255	55	84	1



# **HWC Valve**



#### LK HWC Valve RTC

The thermostatic regulator is used for automatic balancing of recirculation loops in domestic hot water distribution systems, to ensure that all parts of the system reach the required temperature.

Adjustable between 40-65 °C. Factory set at 58 °C.

Article	Dim.	Temp. range	Packaging
481 00 20	1/2"	40-65°C	1/10
481 00 21	3/4"	40-65°C	1/10



#### LK HWC Valve RTC/L

The thermostatic regulator is used for automatic balancing of recirculation loops in domestic hot water distribution systems, to ensure that all parts of the system reach the required temperature.

It is also equipped with a by-pass mechanism, to be used in the event of thermal disinfection against Legionella.

Adjustable between 35-60 °C. Factory set at 52 °C.

Article	Dim.	Temp. range	Packaging
481 00 22	1/2"	35-60°C	1/10
481 00 23	3/4"	35-60°C	1/10



#### **LK Thermometer RTC**

Spare part thermometer for LK VVC Valve RTC and RTC / L.

Article	Dim.	Measuring range	Packaging
481 00 45	Ø 10 mm	0-80 °C	1/20



## Water Meter bracket



#### LK Check Valve WM

Controllable non-return valve for tap water systems.

Thread G20/3/4" Eurocone-Smooth end 22 mm. Arrow on the valve body indicates flow direction.

Backflow protection type EA according to EN13959.

Article	Dim.	Packaging
464 00 00	GE20x22mm	1/65



#### LK Parallel-connected water meter bracket

- Check Valve
- · Easy maintenance
- Male and female connection

LK PWB is a parallel-connected water meter bracket for water meter Q3 4 with a construction length of 190-220mm connection G25. LK PVK is available in many different models with variants for only 190mm meters and 190-200mm meters. By closing the valve before and after a water meter, this can be dismantled at the same time as the water flow is running through the other meters. LK PWB is always delivered with a built-in check valve in the valve after the meter. This check valve is also controllable and can also be replaced should it break. At LK PWB, it is also possible to choose whether you want incoming from above or below, the same applies after the meters. LK Passbit 190mm which is delivered with all LK PWB is intended to be able to sit permanently on cold water but only temporarily on hot water. The manifolds and brackets for the water meters are made of stainless steel.

Article	Dim.	Measuring range	Note	Weight (kg)	Packaging
464 81 01	1 1/4"/1"	Q3 4	2 pcs - 190mm connection G1"		1
464 81 02	1 1/4"/1"	Q3 4	2 pcs - 190-220mm connection G1"		1
464 81 03	1 1/2"/1 1/4"	Q3 4	3 pcs - 190mm connection G1"		1
464 81 05	1 1/2"/1 1/4"	Q3 4	3 pcs - 190-220mm connection G1"		1
464 81 06	2"/1 1/2"	Q3 4	4 pcs - 190mm connection G1"		1
464 81 07		Q3 4	4 pcs - 190-220mm	2"/1 1/2"	1



Article Dim.	Measuring range	Note	Weight (kg)	Packaging
464 81 07	Q3 4	connection G1"	2"/1 1/2"	1

## LK Water Meter Bracket Package

LK Water Meter Bracket Package are available in many variants with consoles of 190mm and 190-220mm.

The packages are delivered complete with valves, distance pipe, gaskets and bracket.

There are also variants with check valves.



J = Adjustable measurement from wall (90-134mm)

S = Customized measurement for LK water meter cabinet

V = Angle valves on both sides

VB = Angle valves plus check valve

Article	Design	Dim.	Packaging
464 81 09	F190 A	1" / Cu 22 mm	1
464 81 10	F190-220 A	1" / Cu 22 mm	1
464 81 11	J190 A	1" / Cu 22 mm	1
464 81 12	J190-220 A	1" / Cu 22 mm	1
464 81 13	S190-220 A	1" / Cu 22 mm	1
464 81 14	F190 ACV	1" / ¾" EC	1
464 81 15	F190-220 ACV	1" / ¾" EC	1
464 81 16	J190 ACV	1" / ¾" EC	
464 81 17	J190-220 ACV	1" / ¾" EC	1
464 81 18	S190-220 ACV	1" / ¾" EC	1

#### LK Water meter bracket

LK Water meter bracket is available in five different variants and is made of stainless steel.

	[80]	

Article	Design	Length	Packaging
464 80 78	F190	190	1
464 80 79	F190-220	190-220	1
464 80 80	J190	190	1
464 80 81	J190-220	190-220	1
464 80 74	S190-220	190-220	1



#### LK Distance pipe 190

LK Distance pipe 190 is made of a plastic that allows it to be permanently installed on cold water and temporarily on hot water.



The Distance pipe is adapted for all our water meter vrackets in sizes 190 and 190-220.

Article	Dim.	Length	Packaging
464 80 89	1"	190	1/108

#### LK Ball Valve 803

LK 804 ball valve fits LK Parallel-connected water meter bracket (LK PWB)

G 3/4" connection w loose nut. And G 3/4". There is an arrow to show flow direction.

Article	Dim.	Length	Width	Height	Packaging
481 00 46	3/4"/3/4"	85	45	70	1



#### LK Ball Valve 804 integrated check valve

LK 804 ball valve has an integrated check valve, fits LK Parallel-connected water meter bracket (LK PWB)

G 3/4" connection w loose nut. And G 3/4". There is an arrow to show flow direction.

Article	Dim.	Packaging
481 00 47	3/4"/3/4"	1/10



#### LK Ball Valve 702

LK Ball valve 702 is a ball valve intended for use with LK Water meter bracket. The ball valve has an internal ¾" thread and a compression fitting for Cu22.

Article	Dim.	Color	Packaging
481 00 33	Cu22 x 34"	Blue handle	1/32

The CO<sub>2</sub> equivalents represent the GWP-total (A1-A3) as a result from our EPD/environmental product declaration.







#### LK Ball Valve 701

LK Ball valve 701 is a ball valve intended for use with LK Water meter bracket. The ball valve has an internal 34" thread and a external 1" thread.

Article	Dim.	Color	Packaging
481 00 34	1"x3/4"	Blue handle	1/32

The  $\text{CO}_2$  equivalents represent the GWP-total (A1-A3) as a result from our EPD/environmental product declaration.







# <u>IK</u>

# **Safety Valves**

#### LK 514 MultiSafe

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. The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations, the outlet must be positioned so that water pockets cannot be formed.

The male thread is designed for the LK Armatur system with O-ring seal where the valve is first tightened by hand until stop and then with a spanner, 0.5-1.5 turns until the desired position is achieved. If the valve is fitted to other components than an LKA valve, the thread has to be sealed in the usual manner. The safety relief valve requires no maintenance but the opening function should be checked 2-3 times per year according to the following:

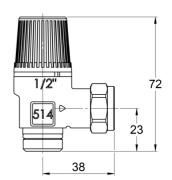
Turn the knob counter-clockwise ¼ turn until a faint "click" is heard. Let the water flush through briefly, then turn another ¼ turn until a stronger "click" is heard and the valve closes.

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

It is normal for the safety relief valve to open and let out some water when the pressure level of the system is reached due to the water's increasing volume during heating.

Article	Opening pressure	Discharge capacity	Dim.	Packaging
500 53 18	0,15Mpa	50 l/min*		1/50
500 53 55	0,25 MPa	50 l/min*	½"/15 mm	1/50



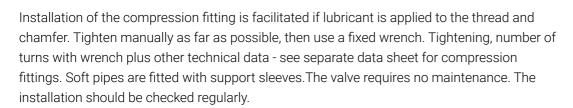


# <u>K</u>

# Filling Valves

#### LK 535 ThermoFill® EB

LK 535 ThermoFill® EB is a filler valve for heating systems. The valve has an integrated shut-off with ball valve and non-return valve, which ensures opening even at low differential pressures. The valve can also be used as a shut-off valve in tapwater systems. The arrow on the valve body indicates the direction of flow. External thread is sealed in the usual way. Both the inlet and outlet side are designed according to the LK Armatur system with O-ring sealing. When connecting to this system, the valve is screwed to a stop manually and then turned a further 0.5-1.5 turns to the correct position using a suitable tool.





Article	Kvs m³/h	Packaging
489 29 20	1,7	1/50

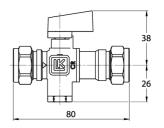
#### LK 538 ThermoFill® EA

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 according to EN 1717.

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

Article	Kvs m³/h	Packaging
489 29 82	2,7	1/50





# K

# **Water Valve**

#### LK Water Valve 12 V

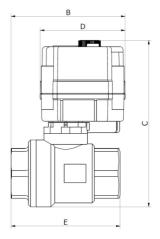
LK Water Valve 12 V with  $\frac{1}{2}$ ",  $\frac{3}{4}$ " or 1" internal thread for. The motor has a knob for emergency release and a position indicator. Opening 12 V DC and closing takes place automatically when power is lost.

The valve is made of stainless steel SS304.

For easy connection, the LK Power Supply 12 V is available as an accessory (Art no. 188 25 50)

Article	Dim.	Cable length	B mm	C mm	D mm	E mm	Packaging
481 00 17	1/2"	0,8 m	67.5	103	54,5	57	1/24
481 00 18	3/4"	0,8 m	70.5	109.5	54,5	70	1/24
481 00 19	1"	0,8 m	76	109.5	54,5	76	1/24





## LK Power supply 12 V WSS

LK Power Supply 12 V is an accessory to LK Water Valve and a spare part to LK Master Unit WSS



# **FilterBall**



#### LK 522 FilterBall

The LK 522 FilterBall is a ball valve with integrated filter, suitable for heating, cooling and tap water systems. The filter is simply cleaned by closing the ball valve, unscrew the cover and remove the filter.



The valve requires no maintenance, but the installation should however be regularly checked.

Article	Dim.	Kvs m³/h	Packaging
624 00 15	3/4"	7,5	1/24
624 00 16	1"	11	1/8
624 00 17	1¼"	20	1/6
624 00 18	1½"	33	1/4
624 00 19	2"	55	1/4

# **Check Valve**



#### LK Check Valve 501

Check valve controllable in DZR brass for use in potable water system, type EA fluid categories 1-2 acc to EN 1717.

Article	Dim.	Packaging
495 00 00	1/2"	1/20/120
495 00 01	3/4"	1/10/60



# K

# **Spare parts**

## LK 685 Spare Part

Intended for LK 535 Filling valve and LK 536 Filling valve in the old version. Included in delivery:

Top piece with mounted spindle and flat gasket

Steering wheel



Article	Packaging
431 17 39	1/100

# <u>IK</u>

# **Safety Group**

## **LK Safety Group RF**

Safety Group for heating systems containing manifolds with straight passage connection 1", pressure gauge, float vent and safety valve.

Article	MPa	Packaging
552 33 74	0,15	1/24
552 33 75	0,20	1/25
552 33 68	0,25	1/25
552 33 76	0,30	1/25



## **LK Safety Group VM**

Safety group for heating systems containing manifolds for vertical mounting connection. 3/4", pressure gauge, vent and safety valve.

Article	MPa	Packaging
552 33 77	0,15	1/24
552 33 78	0,20	1/10
552 33 79	0,25	1/10
552 33 80	0,30	1/10



# **Safety Valves**

# <u>K</u>

#### LK 510 MultiSafe

LK 510 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. The safety relief valve can be installed horizontally or vertically, i.e. with the valve knob facing outwards or upwards. In horizontal installations the outlet must be positioned so that a water pocket cannot be formed.

The thread has to be sealed in the usual manner.

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

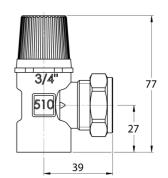
The safety relief valve requires no maintenance. The opening function should, however, be checked 2-3 times a year.:

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

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

Article	Dim.	Opening pressure	Discharge capacity	Packaging
500 53 20	34" / 34"	0,15 MPa	35 l/min	1/25
500 53 21	34" / 34"	0,25 MPa	38 l/min	1/25
500 53 05	<sup>3</sup> 4" / 22 mm	0,15 MPa	35 l/min	1/25
500 53 04		0,20 MPa	35 l/min	1/25
500 53 06		0,25 MPa	38 l/min	1/50
500 53 07		0,30 MPa	40 l/min	1/25





#### LK 556 AntiFreeze Valve

- Protects heating system from freeze damage
- The valve is maintenance-free
- Can be insulated to save energy

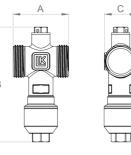
LK 556 AntiFreeze protects your heating system, usually in an air/water heat pump, if the fluid temperature should drop below +3°C by draining the system. This prevents the heating system from freezing.

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.

Article	Dim.	Opening temp. °C	A mm	B mm	C mm	Packaging
507 50 14	1"	3	55	114	32	1/16
507 50 15	1¼"	3	55	123	44	1/16





#### LK 556 AntiFreeze Insulation

LK 556 Antifreeze insulation has been developed to provide effective protection against energy losses. The insulation's closing function makes installation quick and easy.

Article	Dim.	Packaging
507 50 16	1"-1 1/4"	1/4



# Siphon Valve



#### LK 523 VacuVent

LK 523 is a siphonage prevention device that is fitted in tapwater installations. The vacuum valve can be fitted in any position as the function is independent of the position. However, installation at the low points of the system should be avoided.

The connection  $G\frac{1}{2}$  is designed for LK Armatur systems with 0-ring sealing. When connecting to this system, the valve is screwed to a stop manually and then turned a further 0.5-1.5 turns using a suitable tool. When connecting to another component, the thread is sealed in the usual way.

Other thread connections are sealed in the usual way. The valve requires no maintenance. Inspect the installation regularly.

In extreme cases, the valve may not close entirely until work is complete. This is due to solid contamination from the system (e.g. grains of sand or grit) entering the valve seat.

The valve function can be restored with the following action:

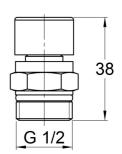
Remove the black protective covering by clamping over it manually, and turn it to the side. Press very carefully on the now visible valve so that the water pressure can flush very briefly through the valve. Put back the protective covering.

Note: Note the water leak that will occur when doing this.









# Filling Valve



#### LK 535 ThermoFill® EB

LK 535 ThermoFill® EB is a filler valve for heating systems. The valve has an integrated shut-off with ball valve and non-return valve, which ensures opening even at low differential pressures. The valve can also be used as a shut-off valve in tapwater systems. The arrow on the valve body indicates the direction of flow. External thread is sealed in the usual way. Both the inlet and outlet side are designed according to the LK Armatur system with O-ring sealing. When connecting to this system, the valve is screwed to a stop manually and then turned a further 0.5-1.5 turns to the correct position using a suitable tool.



Installation of the compression fitting is facilitated if lubricant is applied to the thread and chamfer. Tighten manually as far as possible, then use a fixed wrench. Tightening, number of turns with wrench plus other technical data - see separate data sheet for compression fittings. Soft pipes are fitted with support sleeves. The valve requires no maintenance. The installation should be checked regularly.

Article	Kvs m³/h	Packaging
489 29 20	1,7	1/50

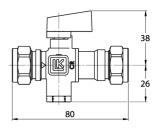
#### LK 538 ThermoFill® EA

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 according to EN 1717.



Article	Kvs m³/h	Packaging
489 29 82	2,7	1/50





#### LK 521 MultiFill®

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 text InstallationApart from cleaning the filter no maintenance is required. The filter should be cleaned immediately after installation, a month later and then every other year or when refilling fluid to the system. Check the installation regularly.



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

Article	Kvs m³/h	MPa	Packaging
624 63 43	12,5	1.0	1/12/192
624 63 44	22	1,0	1/12/192

#### LK Bracket-521 MultiFill DN50

LK Console - 521 MultiFill DN 50 is used for LK MultiFill DN 50.

Article	Packaging		
624 00 20			
481 00 31	1		
624 00 21			
624 00 23			
624 00 22			
624 00 07	1		



Note! Sold in pairs, ie. 2 brackets per package.

# FreeCool Unit

# <u>K</u>

#### LK 322 FreeCool Unit

The LK 322 FreeCool Unit 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 FreeCool Unit 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 Hydronic Group 90C for a suitable shunt group.

The LK 322 also consists of two 3/4" ball valves for connection to the collector loop and two 1" connections to the loop above the convect

Article	Dim.	Kvs m³/h	Temp. range	Packaging
624 00 08	1"	9,5	Min20°C/Max. 80°C	1/12
624 00 09	1 1/4"	16	Min20°/Max 80°C	1/12

# **Drain Valve**

# <u>K</u>

#### LK 905 Drain Valve

Draining valve for heating systems, as a flush or filler valve without non-return valve function. The draining valve inlet is provided with O-ring sealing. During installation, the valve is tightened all the way to the "bottom". After installation, the valve housing can still be rotated and the drain connection can be placed in any position. The drain valve requires no maintenance. The installation should be checked regularly.



The drain connection must be fitted with a protective cap when it is not connected to a hose for draining.

Article	A mm B mm	C mm	Packaging
6 54 85	54 10.5	24	1/50

# **Air Separator**



#### LK 740 Float Dearator

Bottom-connected float deaerator for deaeration of heating systems. The deaerator is supplied with an automatic shut-off valve in brass.

The deaerator is equipped with a quick bleed valve used in connection with system filling (located on top of the deaerator). As well as an additional vent valve that can be left open for a shorter period (max. one month) to separate remaining air in the system.

Max pressure / temperature: 1.0 MPa / 120 °C.

Article	Packaging
484 52 32	1/12/96

#### LK 750 Air Vent

LK 750 Air Vent for heating system.

Deaerators are installed in the high points of the facility. Mounted on manifolds, radiators, etc. The thread is sealed in the usual way.

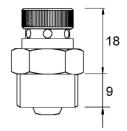
ATTENTION! To avoid the risk of leakage - ensure that the slotted screw is tightened so that it rests against the swelling discs. During commissioning, it is normal for the deaerator to leak a few drops of water.

Working temperature: Max. 115°C Max. working pressure: 0.7 MPa

Media 1: Water - Glycol mixture max. 50%

Article	Packaging
Aiticle	Fackaging
484 21 88	1/10/200





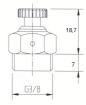
#### LK 755 Air Vent

For manual venting of heating systems. The deaerator is made of brass and is internally 0-ring sealed.

Max pressure / temperature: 1.0 MPa / 110 °C.

Article	Packaging
484 12 19	1/10/200
484 12 27	1/10/200





#### LK 760 Air Vent

For manual venting of heating systems. The deaerator is made of brass and intended to be mounted in an LK Conex compression ring coupling with a 15 mm connection. Max pressure / temperature:  $1.6\ MPa$  /  $130\ ^{\circ}C$ .





# K

# **Ball Valve**

#### LK 522 FilterBall

The LK 522 FilterBall is a ball valve with integrated filter, suitable for heating, cooling and tap water systems. The filter is simply cleaned by closing the ball valve, unscrew the cover and remove the filter.



The valve requires no maintenance, but the installation should however be regularly checked.

Article	Dim.	Kvs m³/h	Packaging
624 00 15	3/4"	7,5	1/24
624 00 16	1"	11	1/8
624 00 17	1¼"	20	1/6
624 00 18	1½"	33	1/4
624 00 19	2"	55	1/4



# **Circulation Units**

#### LK HydronicGroup

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

LK HydronicGroup comprises a highly effi cient circulation pump, insulation, wall mounting bracket and two ball valves with thermometer, of

which the ball valve on the return side has an integrated check valve. In the variant where shunted supply is desired, a three-way shunt valve is included.

Article	Dim.	c/c inlet/outlet	Note	Kvs m³/h	Packaging
490 00 00	G25 inv/utv	90	Wilo PARA 15-130/8-75/SC-9		1
490 00 01	G25 inv/utv	90	Wilo PARA 15-130/8-75/SC-9	6,3 / 10	1



# <u>K</u>

# **Spare parts**

## LK 685 Spare Part

Intended for LK 535 Filling valve and LK 536 Filling valve in the old version. Included in delivery:

Top piece with mounted spindle and flat gasket

Steering wheel



Article	Packaging	
431 17 39	1/100	