LK Armatur

SmartComfort
LK 100 CT
LK 110
LK 120
LK 130

PATENTED

SmartComfort

Just plug it in. - Ready to use!

Remote control e.g. via mobile phone.

Sleep mode...

Not at home...

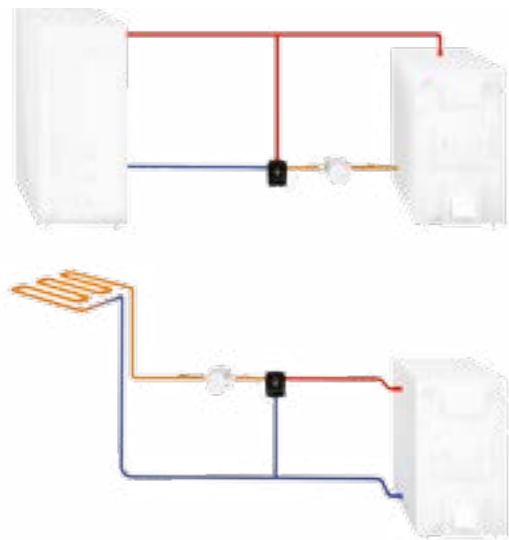Automatically selects direction of the mixing valve.

Lazy? Preset programs available.

Your own...

Provides optimum comfort temperature in your heating system.

LK 100 CT

Electronic constant temperature controller for underfloor heating and solid fuel boilers.

LK 110

Outdoor temperature sensor

Electronic weather compensated temperature controller for hydronic radiator and underfloor heating systems.

LK 120

Room unit

Electronic indoor temperature controller for hydronic radiator and underfloor heating systems.

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

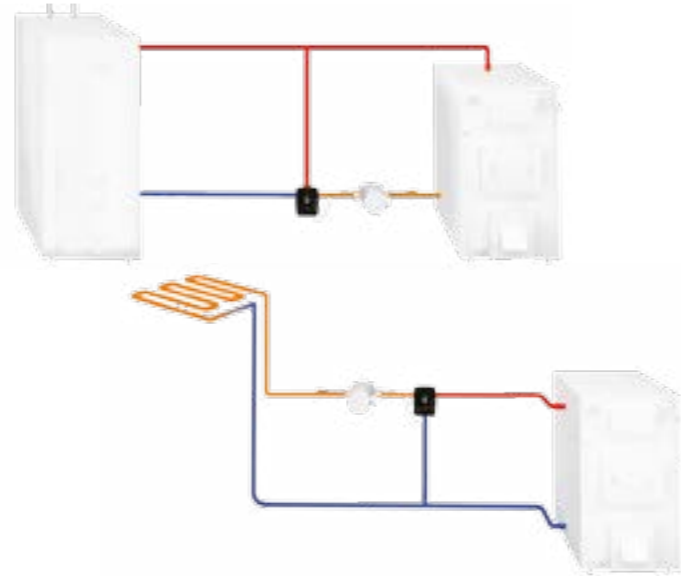### LK 130

Room unit

Outdoor Temperature sensor

Electronic, weather compensated, indoor temperature controller for hydronic radiator and underfloor heating systems.

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

LK 100 SmartComfort CT

"Electronic constant tempera-ture controller for underfloor heating and solid fuel boilers."

TECHNICAL DATA

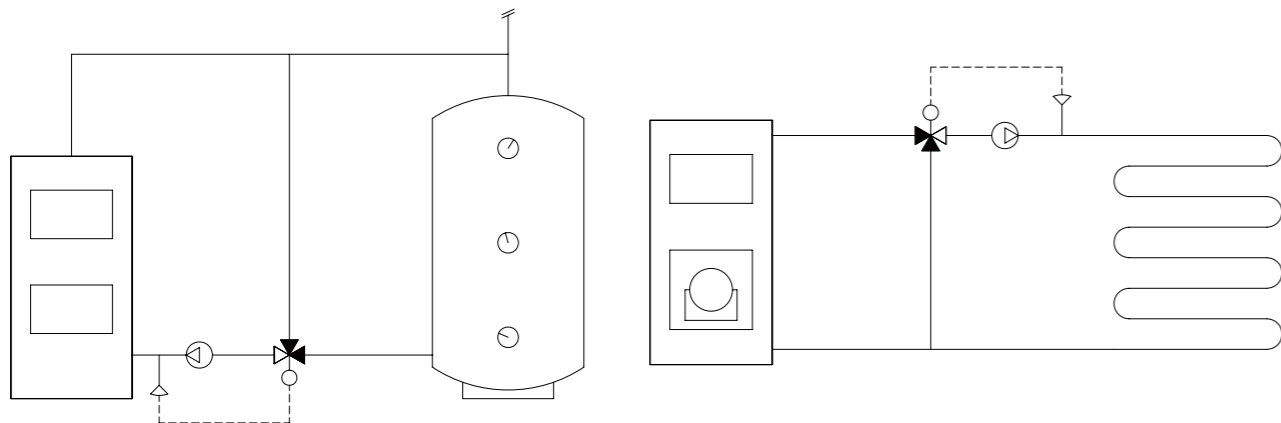|	
Primary voltage, adapter	100–240 VAC, 50/60 Hz
Secondary voltage, adapter	24 VDC
Power consumption	< 3 VA
Ambient temperature	Min. 0°C/Max. +50°C (in operation)
Control range, flow temperature	5°C – 99°C
Angle of rotation	90°
Torque	5 Nm
Protection class	IP 40

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.
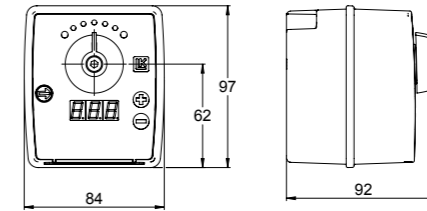
LK 100 SmartComfort CT has an automatic choice of direction to adapt to the direction of the mixing valve. LED-indicators show if the controller is opening or closing the valve. The flow temperature is adjustable 5°C – 99°C. The desired temperature is easily set with the push buttons marked "+" and "– ". The selected value will be shown on the LED-display.

LK 100 SmartComfort CT is easy to install onto new as well as existing mixing valves. Mounting kits for installation onto mixing valves of other brands are available.

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 SMARTCOMFORT CT

ARTICLE NO.	ARTICLE	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

ITEMS INCLUDED

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

SPARE PARTS AND ACCESSORIES

ARTICLE NO.	ARTICLE	POSITION
187098	Constant temperature controller SmartComfort CT	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
025008	Extension cable for adapter, 1 m	5

LK 110 SmartComfort

"Electronic weather compensated temperature controller for hydronic radiator and underfloor heating systems."

ARTICLE NO.	ARTICLE	WEIGHT KG
181243	LK 110 SmartComfort – EU	0.7
181250	LK 110 SmartComfort – UK	0.7
181251	LK 110 SmartComfort – US	0.7

ITEMS INCLUDED

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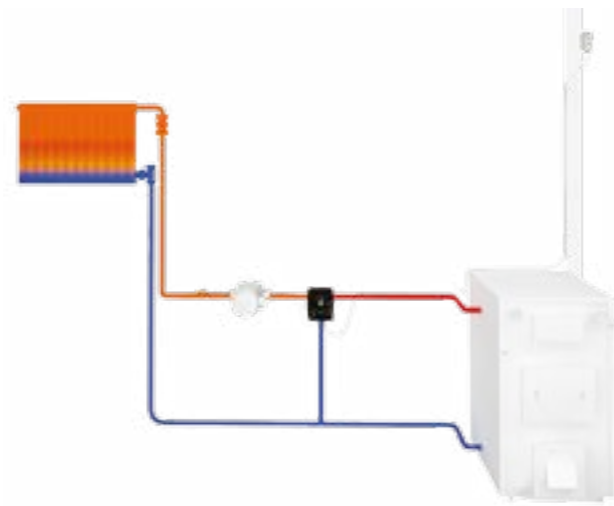- Outdoor temperature sensor with 15 m cable and protective casing

TECHNICAL DATA

Primary voltage, adapter	100–240 VAC, 50/60 Hz
Secondary voltage, adapter	24 VDC
Power consumption	< 3 VA
Ambient temperature	Min. 0°C/Max. +50°C (in operation)
Min. supply temperature	+5°C – +40°C
Max. supply temperature	+20°C – +99°C
Curve slope	1.0 – 9.9
Parallel displacement	± 10°C
Angle of rotation	90°
Torque	5 Nm
Protection class	Actuator IP 40

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 current supply and outdoor temperatures can be read on the controller display.

LK 110 SmartComfort 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. Symbols on the controller show the chosen function and the LED display shows the setting or value of the function. Adjustments are easily made with the push buttons marked "+" and "–".

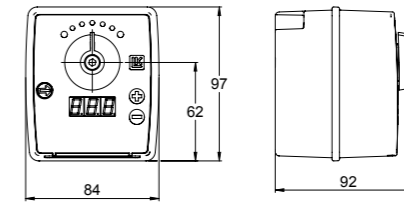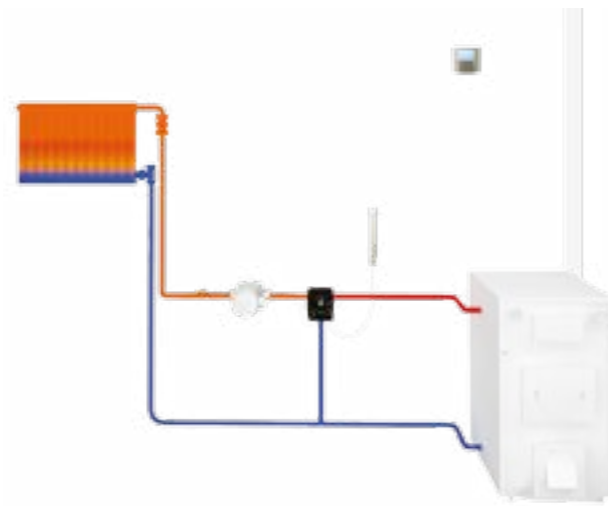Dependent on the dimension of the heating system and the insulation of the building, the heating curve may need to be adjusted in order to achieve the desired room temperature. The curve slope and the parallel displacement are easily adjustable with the push buttons.

LK 110 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.

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.

Room temperature unit SmartComfort RT alternatively SmartComfort RTW is available as an accessory. For more information see product sheets for LK 120 and LK 130 SmartComfort.

SPARE PARTS AND ACCESSORIES

ARTICLE NO.	ARTICLE	POSITION
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
187097	Room temperature unit SmartComfort RTW	10
025024	Wireless receiver for SmartComfort RTW	11
187113	Room temperature unit SmartComfort RTW with wireless receiver	12
187095	Pump control SmartComfort PC	13
025027	Extension cable for outdoor temperature sensor, 15 m	14
025008	Extension cable for adapter, 1 m	15

LK 120 SmartComfort

"Electronic indoor tempera-
ture controller for hydronic
radiator and underfloor
heating systems."

TECHNICAL DATA

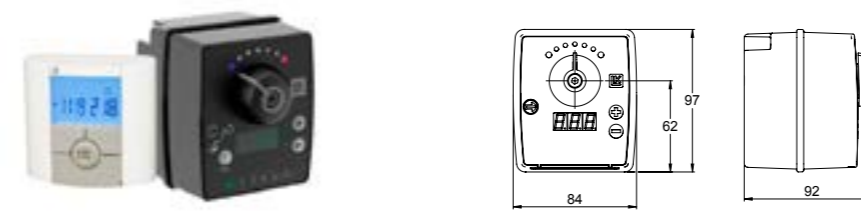|	
Primary voltage, adapter	100-240 VAC, 50/60 Hz
Secondary voltage, adapter	24 VDC
Power consumption	< 3 VA
Ambient temperature in operation	
Actuator	Min. 0°C/Max. +50°C
Room Temperature Unit	Min. 0°C/Max. +40°C
Min. supply temperature	+5°C - +40°C
Max. supply temperature	+20°C - +99°C
Control range	Min. +5°C/Max. +35°C
Angle of rotation	90°
Torque	5 Nm
Protection class	Actuator IP 40
	Room Temperature Unit IP 20

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.

LK 120 SmartComfort 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. Symbols on the controller show the chosen function and the LED display shows the setting or value of the function. Adjustments are easily made with the push buttons marked "+" and "- ".

LK 120 SmartComfort is delivered with a room temperature unit allowing easy setting of the desired indoor temperature. The room temperature unit is available in two versions; with fixed cable SmartComfort RT or wi-

reless receiver SmartComfort RTW. 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.

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.

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.

LK 120 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.

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.

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 separately every two days, thus eliminating the risk of pump stalling after an intermission.

An outdoor temperature sensor is available as an accessory. For more information see product sheets for LK 110 and LK 130 SmartComfort.

LK 120 SMARTCOMFORT

ARTICLE NO.	ARTICLE	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

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
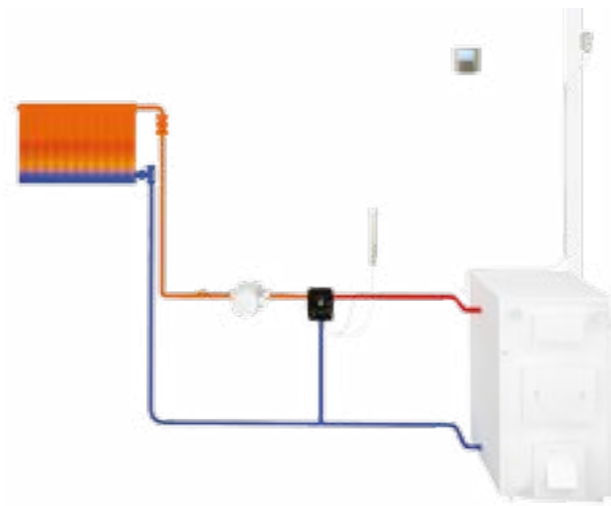 cable or Room temperature unit SmartComfort RTW
  with wireless receiver

SPARE PARTS AND ACCESSORIES

ARTICLE NO.	ARTICLE	POSITION
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
187097	Room temperature unit SmartComfort RTW	10
025024	Wireless receiver for SmartComfort RTW	11
187113	Room temperature unit SmartComfort RTW with wireless receiver	12
187095	Pump control SmartComfort PC	13
025027	Extension cable for outdoor temperature sensor, 15 m	14
025008	Extension cable for adapter, 1 m	15

LK 130 SmartComfort

"Electronic, weather compensated, indoor temperature controller for hydronic radiator and underfloor heating systems."

ARTICLE NO.	ARTICLE	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

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.

TECHNICAL DATA

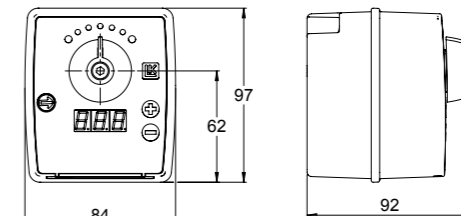|	
Primary voltage, adapter	100-240 VAC, 50/60 Hz
Secondary voltage, adapter	24 VDC
Power consumption	< 3 VA
Ambient temperature in operation	
Actuator	Min. 0°C/Max. +50°C
Room Temperature Unit	Min. 0°C/Max. +40°C
Min. supply temperature	+5°C – +40°C
Max. supply temperature	+20°C – +99°C
Control range	Min. +5°C/Max. +35°C
Curve slope	1.0 - 9.9
Parallel displacement	± 10°C
Angle of rotation	90°
Torque	5 Nm
Protection class	Actuator IP 40, Room Temperature Unit IP 20

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.

LK 130 SmartComfort 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. Symbols on the controller show the chosen function and the LED display shows the setting or value of the function. Adjustments are easily made with the push buttons marked "+" and "- ".

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 adjustable with the push buttons.

LK 130 SmartComfort is delivered with a room temperature unit allowing easy setting of the desired indoor temperature. The room temperature unit is available in two versions; with fixed cable SmartComfort RT or wireless receiver SmartComfort RTW. 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.

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.

LK 130 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.

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.

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 separately every two days, thus eliminating the risk of pump stalling after an intermission.

SPARE PARTS AND ACCESSORIES

ARTICLE NO.	ARTICLE	POSITION
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
187097	Room temperature unit SmartComfort RTW	10
025024	Wireless receiver for SmartComfort RTW	11
187113	Room temperature unit SmartComfort RTW with wireless receiver	12
187095	Pump control SmartComfort PC	13
025027	Extension cable for outdoor temperature sensor, 15 m	14
025008	Extension cable for adapter, 1 m	15

Curious for more?

LK 811 ThermoMat E Eco

Compact electronic loading unit with integrated mixing valve and a low-energy circulation pump that fulfills the requirements of ErP 2015.

LK 840 and LK 841 ThermoMix®

3- and 4-way mixing valves made of brass. LK 840 is a 3- way mixing valve that can be used as a mixing or diverting valve. LK 840 and 841 are both suitable for motorization and can be equipped with an insulation.

LK Armatur

Do you want to know more?
Visit our website.
www.lkarmatur.se

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