

# Pipes

## LK Heating Pipe PE-X

- Max PN 6 bar
- Maximum operating temperature 70 °C
- Short time maximum peak temperature 95 °C

Cross-linked polyethylene pipe with oxygen barrier for ground heating.



Article	Dim.	Length	CO <sub>2</sub> -EQ. (Kg)	Weight (kg)	Packaging
241 95 40	25 x 2,3	175 m	87.91	29,8	1/3
241 95 41	25 x 2,3	200 m	96.41	34,0	1/3
241 95 42	25 x 2,3	240 m	120.36	40,8	1/3
241 95 43	25 x 2,3	320 m	160.48	54,4	1/5

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

## LK Heating Pipe PE-RT

- Max PN 10 bar
- Maximum operating temperature 60 °C
- Short time maximum peak temperature 70 °C

Polyethylene pipe with oxygen barrier for heating system.



### Material Consumption

- Pipe dim. 20 x 2,0 pipe distance c/c 200 mm, approx. 5,7 m/m<sup>2</sup>

Article	Dim.	Length	CO <sub>2</sub> -EQ. (Kg)	Weight (kg)	Packaging
241 67 19	20 x 2,0	75 m	24.98	10,5	1/9
241 67 20	20 x 2,0	120 m	39.44	16,3	1/6
241 67 26	20 x 2,0	160 m	52.92	19,3	1/6
241 67 21	20 x 2,0	240 m	78.88	26,3	1/4
241 67 23	20 x 2,0	360 m	118.65	46,5	1/3
241 67 24	20 x 2,0	500 m	164.67	50,0	1/2

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

## LK Snow Melting pipe 25

- Max PN 10 bar
- Maximum operating temperature 50 °C

Polyethylene pipe without oxygen barrier for snow melting systems.

The ring stiffness of the 25 mm ground heating pipe SDR11 is 83.3 kN/m<sup>2</sup>.



Article	Dim.	Length	Weight (kg)	Packaging
241 91 22	25 x 2,3	175 m	29,0	1/5
241 79 97	25 x 2,3	200 m	33,0	1/5
241 79 98	25 x 2,3	240 m	39,6	1/5
241 91 23	25 x 2,3	320 m	53	1/4

# Installation components

## LK Clip rail for snow melting

- Article no. 241 76 99, c/c pipe holder 50 mm
- Article no. 241 74 95, c/c pipe holder 50 mm
- Article no. 241 74 08, c/c pipe holder 80 mm

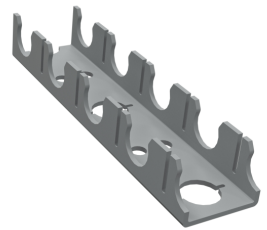
LK Clip rail is used to fix underfloor / snow melting pipe, rail provides a precise c/c distance.

Clip rail installed with a spacing of 1-1.5 meters.

To fix the clip rail against insulation use LK Pipe Holder.

On concrete floors the clip rail is nailed or screwed to the floor.

Against the ground the clip rail is fasten using a tent peg shaped rebar nailed down into the ground. (Reinforcement bars is not included in LK's product range).



Article	For pipe dim.	Length	Height	c/c	Color	Weight (kg)	Packaging
241 76 99	20 mm	4,0 m	25 mm	50 mm	Brown Gray	1,56	1/10/700
241 74 95	25 mm	4,0 m	35 mm	50 mm	Gray	1,50	1/16/400

## LK Pipe Holder

LK Pipe Holder is used for fastening the clip rail on to insulation.

### Material Consumption

- Ap. 3 st/m<sup>2</sup>



Article	For pipe dim.	Length	CO <sub>2</sub> -EQ. (Kg)	Packaging
241 75 17	8-12-16-20 mm	65 mm	0.01	1/100/5000

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



## LK Pipe Holding Nail 16-20

LK Pipe Holding Nail 16-20 used for fixing LK Universal Pipe/LK Heating Pipe dim. 16-20 in to insulation.

Article	For pipe dim.	Length	Packaging
241 94 85	16-20 mm	115 mm	1/50/500



## LK Pipe Holding Nail 25-63

LK Pipe Holding Nail 25-63 used for fixing LK Universal Pipe/LK Heating Pipe/LK Heating Pipe PiP dim. 25-63 to insulation. Supplied with cable ties.

Article	For pipe dim.	Length	CO <sub>2</sub> -EQ. (Kg)	Packaging
241 94 86	25-63 mm	95 mm	0.05	1/50/500



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



# Manifold installed in ground

## LK Snow melting manifold PEH

LK Snow Melting manifold is made from PEH PN 10. The manifold is manufactured in three different sizes: 75, 110 and 160 and is supplied with welded branches in dimension 25. The branches normally have a spacing of 500 mm, but adjustment is made for each object.

LK Snow Melting pipe 25 x 2.3 can be connected to the ground manifold with three different connection methods; compression fitting, press fitting or electric welding sleeve

Feed pipe is connected either with electric welding sleeve or flange.

The manifold is manufactured / adjusted for each object.



## LK Electric Welding sleeve PN 10

LK Electric welding sleeve dim 25 is used for mounting LK Snow Melting pipe 25 x 2.3 to LK Ground Manifold HDPE.

LK Electric welding sleeve dim 75, 110 and 160 is used when jointing LK Ground Manifold HDPE.

During assembly, electric welding unit for pressure class PN 10 is to be used.

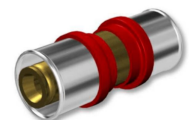


Article	Dim.	Packaging
731100	25	1
731105	75	1
731107	110	1
731109	160	1

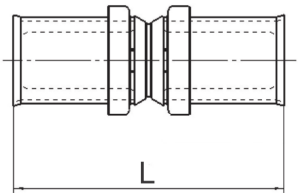
## LK Press fitting PV Straight (25)

For connection of LK Ground heating pipe 25 x 2,3 to LK Ground manifold HDPE.

Article	Dim.	L mm	Packaging
241 70 52	25x2,3	60.5	1/5/160



For the complete range of LK Press fittings PV, see underfloor heating product range.



## LK Joint Nipple Straight

Nipple with 2 coupling connections. To be complemented with respective connection coupling.

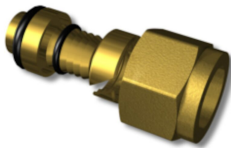
Article	Nipple conn.	Packaging
241 79 12	25	1/25



## LK Connection Coupling

For connection of LK Ground heating pipe 25x2,3 to LK Ground manifold HDPE.

To be complemented with LK Joint Nipple straight, article no. 241 79 12



Article	Intended for	Dim.	Pipe type	Nipple conn.	Packaging
241 79 07	PE-X	25x2,3	PE-X	25	1/25/250

## LK Pipe Bending Support Open

Pipe bending support for LK Heating Pipe 20x2 and 25x2,3. Use pipe bending support dim. 34 with LK Ground heating pipe 25x2,3. Complete with bundle ties for fixing the pipe in the bending support.

Article	For pipe dim.	Radius outer (mm)	Packaging
243 54 98	20 mm	150	1/10/50
243 55 03	34 mm	230	1/10/50



## LK Pipe Bending Support with ear

Pipe Bending support with fastened ear. Works with Pex RIR with outer dimension 25.

Can be set separately with screws or attached to two togheterr to get 40 c / c.

Convenient for installation for radiators.



Article	For pipe dim.	Radius outer (mm)	Note	Packaging
188 24 01	25 mm	120	not suitable for LK Ground heating pipe 25	1/50

# VKF RF

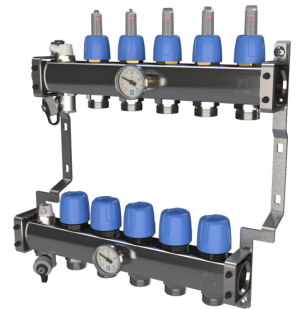
## LK Manifold RF

LK Manifold RF is made of stainless steel, the variants having 1 to 12 floor heating circuits. The manifold is delivered pre-mounted in brackets. The manifold has thermometers on the supply and return, manual air-bleed valves and filling/drain valves\*.

(\*Manifold RF 1 is supplied without thermometer or filling/drain valve)

The upper manifold marked FLOW (supply) is fitted with flow indicators graded from 0,5-5 l/min and adjustment valves for the adjustment of individual circuit flows. The flow indicators are made of temperature and impact resistant plastic.

The lower manifold marked RETURN has hand actuators for shutting off individual circuits. The manifold is ready to be connected to the left-hand side on delivery. Connection from the right is done by removing the end cap assemblies. Marking plates for identifying individual floor heating circuits, assembly instructions and a protective bag used to protect the manifold from e.g. splashes of concrete during the assembly period are enclosed.



The manifold requires additionally:

Two LK Ball Valves (Art. no. 241 75 50) or LK Ball Valve Angle (Art. no. 241 79 58). Where appropriate, the ball valve is replaced by LK OptiFlow EVO II. See product range for LK Adjustment Valves.

LK Connection Coupling for pipe range dim: PE-X/PAL pipe in dim 16 (Art. no. 241 72 98) / PE-X pipe in dim 12x2 (Art. no. 241 94 66 ) / PE-X pipe in dim 20x2 (Art. no. 241 94 68).

Connection dimensions:

Connection feed pipe, 1" female

Connection under floor heating pipe, ¾" male Eurocone

Dimensions:

The dimensions of the manifold are listed in the table below. Center dimension pipe connections is 50 mm with 25 mm displacement between flow and return. Additional length for accessories are stated below.

LK Ball Valve Straight: 65 mm

LK Ball Valve Angle: 70 mm

LK By-Pass RF: 15 mm

LK By-Pass Delta P RF: 155 mm

LK OptiFlow EVO II incl joint nipple straight: 123 mm

LK OptiFlow EVO II incl joint nipple elbow: 93 mm



Article	Length	Height	Depth	No. of circuits	CO <sub>2</sub> -EQ. (Kg)	Weight (kg)	Packaging
241 02 58	128 mm	355 mm	90 mm	1	3.73	1,2	1/120

Article	Length	Height	Depth	No. of circuits	CO <sub>2</sub> -EQ. (Kg)	Weight (kg)	Packaging
241 93 50	220 mm	355 mm	90 mm	2	6.64	2,2	1/48
241 93 51	270 mm	355 mm	90 mm	3	8.22	2,4	1/48
241 93 52	320 mm	355 mm	90 mm	4	9.76	2,6	1/48
241 93 53	385 mm	355 mm	90 mm	5	11.34	2,9	1/32
241 93 54	420 mm	355 mm	90 mm	6	12.88	3,0	1/32
241 93 55	470 mm	355 mm	90 mm	7	14.46	3,2	1/32
241 93 57	520 mm	355 mm	90 mm	8	16.04	3,4	1/24
241 93 58	570 mm	355 mm	90 mm	9	17.58	3,65	1/24
241 93 59	620 mm	355 mm	90 mm	10	19.12	3,8	1/24
241 93 60	670 mm	355 mm	90 mm	11	20.7	4,0	1/24
241 93 61	720 mm	355 mm	90 mm	12	22.23	4,2	1/24

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

## LK Connection Coupling RF

For connection of LK Under Floor Heating Pipe PE-X dim 20 to LK Manifold RF.

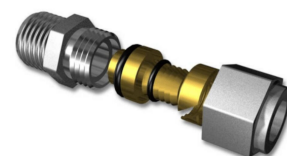
Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 68	PE/PE-X	20x2,0	¾" EuroCone	1/24/240



## LK Connection Set straight

Connection Set for connection of feed pipe PE-X to LK Manifold RF.

Article	Design	Dim.	Packaging
241 81 10	Nickel plated	25x2,3 x 1"	1/50
241 81 11	Nickel plated	32x2,9/3,0 x 1"	1/40



## LK Connection Set angle

Connection Set for connection of feed pipe PE-X to LK Manifold RF.

Article	Dim.	Packaging
241 81 12	25x2,3 x 1"	1/40/10

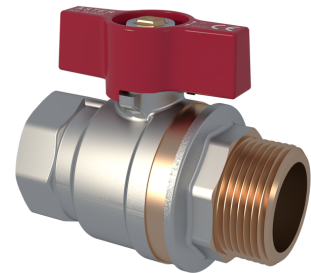
241 81 13	32x2,9 x 1"	1/30
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## LK Ball Valve straight 1"

Isolation valve for LK Manifold RF.

Article	Dim.	Packaging
241 75 50	1" m/f	1/8/48



## LK Ball Valve angle 1"

Isolation valve for LK Manifold RF.



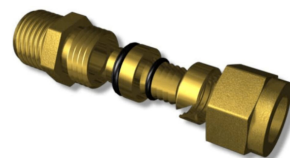
Article	Dim.	Packaging
241 79 58	1" m/f	1/6/24



## LK Coupling male thread

Transitional coupling for LK Heating pipe PE-X dim 20, 25 and 32 mm.

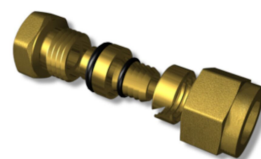
Article	Design	Dim.	Packaging
241 79 08	Yellow	20x2,0 x ½"	1/25/250
241 78 99	Yellow	20x2,0 x ¾"	1/25
241 79 09	Nickel plated	25x2,3 x ¾"	1/10
241 81 10	Nickel plated	25x2,3 x 1"	1/50
241 81 11	Nickel plated	32x2,9/3,0 x 1"	1/40



## LK Coupling female thread

Transitional coupling for LK Heating pipe PE-X dim 20 and 25 mm.

Article	Design	Dim.	Packaging
241 79 10	Nickel plated	20x2,0 x ½"	1/25/250
241 78 98	Nickel plated	20x2,0 x ¾"	1/25
241 79 11	Yellow	25x2,3 x ¾"	1/10



## LK Joint Nipple straight

For contraction of LK Manifold RF.

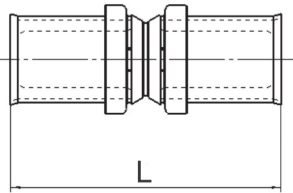
Article	Intended for	Dim.	Packaging
241 74 68	LK Manifold RF	1"	1/25/250



## LK Press fitting PV Straight (20)

Article	Dim.	L mm	Packaging
241 70 40	20x2,0	56	1/10/240

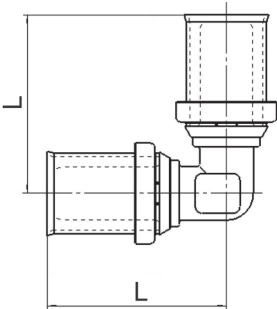
For complete range of LK Press fittings PV, see underfloor heating product range.



## LK Press fitting PV 90° Elbow (20)

Article	Dim.	L mm	Packaging
241 70 39	20x2,0	41.5	1/5/150

For the complete range of LK Press fittings PV, see underfloor heating product range.

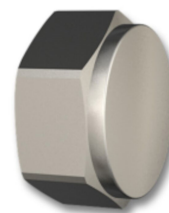


## LK Manifold Screw Plug



Manifold screw plug with gasket to plug up unused connections on LK Manifold RF.

Article	Dim.	Manifold type	Packaging
187 06 68	3/4"	LK Mini manifold 20 & LK VKF RF	1/10/50



## LK Pipe Bending Support Open

Pipe bending support for LK Heating Pipe 20x2 and 25x2,3. Use pipe bending support dim. 34 with LK Ground heating pipe 25x2,3. Complete with bundle ties for fixing the pipe in the bending support.

Article	For pipe dim.	Radius outer (mm)	Note	Packaging
243 54 98	20 mm	150		1/10/50
243 55 00	25 mm	180	Not suitable for LK Ground heating pipe 25	1/10/50



## LK Pipe Bending Support with ear

Pipe Bending support with fastened ear. Works with Pex RIR with outer dimension 25.

Can be set separately with screws or attached to two together to get 40 c / c.

Convenient for installation for radiators.

Article	For pipe dim.	Radius outer (mm)	Note	Packaging
188 24 01	25 mm	120	not suitable for LK Ground heating pipe 25	1/50



# Qmax

## LK Manifold Qmax 2"

LK Manifold Qmax 2" is made of stainless steel and is intended to be used as a manifold for tap water, heating and cooling systems with high volume flow. The manifold is available with two, three, four or six outlets with 1" dia, the individual distance c/c 100 mm. The manifolds can be combined to receive the required number of outlets. The manifold must be supplemented with LK Ball Valve 2" and LK Plug 2" (only for floor heating) and LK Bracket Qmax. The manifold is delivered in a complete package with the required number of gaskets 2" and 1" dia. plus instructions. Also included is a brass plug 1/4" (for tap water) and a manual air vent (for the heating system), connection 1/4".



Area of use, tap water:

LK Manifold Qmax is used as a group manifold in systems where high volume flows are probable. The manifold is mounted in systems with the same pressure and temperature areas as Universal pipes, i.e. max 1.0 MPa at +95 °C.

Area of use, heating:

LK Manifold Qmax is used as a group manifold when several LK Manifolds need to be connected to the same heat source. LK Manifold Qmax is supplemented with LK OptiFlow Evo II allowing an easy adjustment/balancing of the flow to each LK Manifold from the same place.

Article	Length	No. of outlets	Manifold type	CO <sub>2</sub> -EQ. (Kg)	Packaging
243 51 68	198 mm	2 x 1"	Group manifold	4.27	1/5
243 51 69	298 mm	3 x 1"	Group manifold	5.36	1/5
243 51 70	398 mm	4 x 1"	Group manifold	6.44	1/5
243 51 71	598 mm	6 x 1"	Group manifold	8.59	1/5

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

## LK Bracket Qmax 2"

Intended for LK Manifold Qmax 2".

The brackets are supplied in pairs.

Article	Packaging
241 03 16	1/10

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



## LK Ball Valve with thermometer

Isolation valve with thermometer for LK Manifold VKF-i.

Article	Dim.	Length	Packaging
241 89 00	1" m/f	110 mm	1/2



## LK Ball Valve 2"

Intended for LK Manifold Qmax 2".

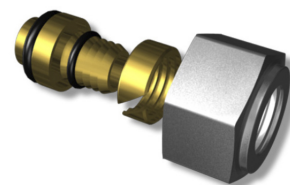
Article	Dim.	Length	Packaging
243 51 66	1½" fm x 2"	99 mm	1/12



## LK Connection Coupling Qmax

For connection of LK Floor Heating Pipe PE-X dim. 20x2 and LK Ground Heating Pipe ø 25x2,3 to LK Manifold Qmax. May be completed with LK Joint Nipple straight male (Article no. 241 79 48).

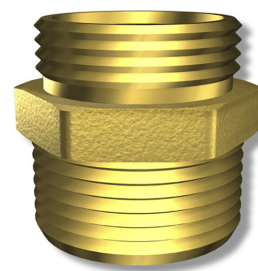
Article	Intended for	Dim.	Nipple conn.	Pipe type	Packaging
241 79 32	PE-X	20x2,0	25		1/25
241 79 07	PE-X	25x2,3	25	PE-X	1/25/250



## LK Joint Nipple straight male thread

Nipple with 1 connection coupling and male thread. Complemented with respective connection coupling.

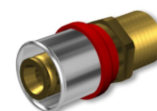
Article	Dim.	Nipple conn.	Packaging
481 43 65	¾"	12/16/20	1/25/250
241 79 48	1"	25	1/25



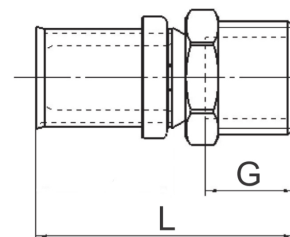
## LK Press fitting PV Straight BSP/M (25)

For pipe connection to LK Manifold Qmax.

Article	Dim.	G mm	L mm	Packaging
241 70 42	25x2,3/1" male	20	51.5	1/5/160



For complete range of LK Press fittings PV, see underfloor heating product range.



## LK Pipe Bending Support Open

Pipe bending support for LK Heating Pipe 20x2 and 25x2,3. Use pipe bending support dim. 34 with LK Ground heating pipe 25x2,3. Complete with bundle ties for fixing the pipe in the bending support.

Article	For pipe dim.	Radius outer (mm)	Note	Packaging
243 54 98	20 mm	150		1/10/50
243 55 00	25 mm	180	Not suitable for LK Ground heating pipe 25	1/10/50



## LK Manifold Cabinet Qmax

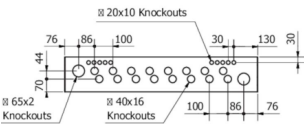
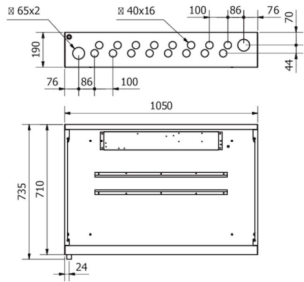
LK Manifold Cabinet Qmax is designed for use where there is a requirement to conceal LK Manifold Qmax 2". LK Manifold Cabinet Qmax with accompanying instructions is adapted to the industry regulations "Säker Vatteninstallation". The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected.



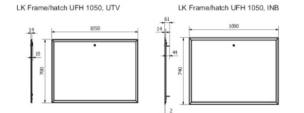
The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016. The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm. The cabinet should be assembled according to the industry regulations "Säker Vatteninstallation".

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall. When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

LK Manifold Cabinet Qmax is supplied with LK Bracket Qmax, pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions. The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.

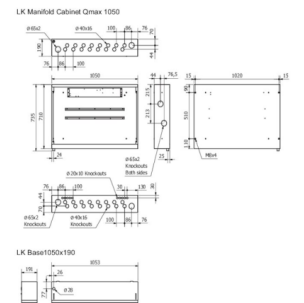


The ends of the cabinet are provided with knockout holes for any side connection of supply and return pipes. The top side of the cabinet has knockout holes for any pipe routing through the cabinet and knockout holes for any cable grommets for room control. Maximum pipe dimension for risers is 50 mm.



NOTE! In cases where a riser is pulled inside the cabinet, the maximum number of outlets may be reduced by one or more.

Article	Width	Height	Depth	CO <sub>2</sub> -EQ. (Kg)	Weight (kg)	Packaging
241 03 10	1050 mm	710 mm	190 mm	41.31	12,5	1/4



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

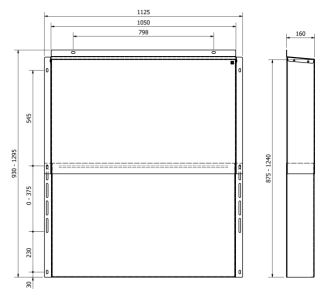
## LK Manifold Cover Qmax

LK Manifold cover Qmax is designed for use where you want to protect LK Manifold Qmax G50 in an outdoor installation. The cover is made from a 2 mm galvanised steel sheet and is designed to be installed outdoors against a wall. The cover protects a Qmax manifold with up to 6 outlets.



LK Manifold cover Qmax is delivered in two parts. Plugs and screws are not included. Hole width for attachment is 10 mm.

Article	Width	Height	Depth	Weight (kg)	Packaging
243 52 59	1050 mm	875 - 1240 mm	160 mm	30.55	1/3



# Control system

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## LK Control Unit ET02

LK Control Unit Et02 is primarily intended for use where LK Snow Melting will be controlled intermittently. Depending on the connection, the unit can either control the start/stop of external control equipment, or control the ground heating system flow temperature.



May be complemented with LK Area sensor ETOG and also with LK Pipe sensor ETF if the flow temperature needs to be controlled.

Article	Packaging
538 61 76	1/40

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## LK Ground sensor ETOG

LK Ground sensor ETOG connects to LK Control unit ET02.

Normally, only one ground sensor is connected to the control unit, but if the surface that is heated stretches around a building and thereby end up in different directions, it may be reasonable to connect an additional ground sensor to the device.



Article	Cable length	Packaging
538 61 77	10 m	1

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## LK Pipe sensor ETF

LK Pipe sensor ETF is used together with LK Control unit ET02 If the control device will control/regulate ground heating system flow temperature.



Article	Cable length	Packaging
538 61 78	2,5 m	1



# Tools

## LK Pipe Decoiler XL

- Easy to transport
- Delivered in a practical storage bag
- Quick assembly / disassembly

Tool for efficient installation of PE-Xa / PE-RT / PE pipes. LK Pipe Decoiler XL is particularly well suited for large and heavy pipe coils, such as the LK Snow Melting Pipe 25. LK Pipe Decoiler XL is compatible with our entire range of pipes, regardless of product system.



Min. inner diameter of the pipe coil: 240 mm  
Max. outer diameter of the pipe coil: 1600 mm  
Max. weight of the pipe coil: 100 kg

Article	Packaging
243 55 21	1/10