

**ELEKTRA**

# **FreezeTec**<sup>®</sup>

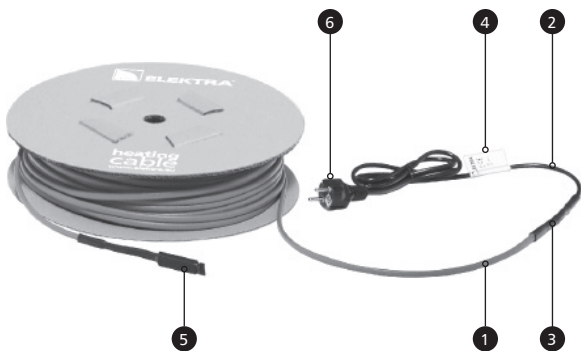


HEATING CABLE  
WITH A BUILT-IN THERMOSTAT



## Application

ELEKTRA FreezeTec® heating cables are intended for the anti-freeze protection of pipes with a max. diameter of 50 mm (2"), valves and water meters. They are recommended for installations located in unheated rooms or outdoors. The heating cable is installed on pipes, under insulation. The ELEKTRA FreezeTec® heating cables are produced in ready-made units, including heating cable with built-in thermostat at one end and terminated at the other end with a power supply conductor with a sealed plug. The thermostat will commence operation when the temperature on the pipe's surface under thermal insulation will drop below +3°C, and terminate heating when the temperature will exceed +10°C.



ELEKTRA FreezeTec® heating cable

- 1 ELEKTRA FreezeTec® heating cable
- 2 „cold“ power supply conductor
- 3 connecting joint between the power supply conductor and the heating cable
- 4 label
- 5 thermostat
- 6 sealed plug

# Heating Cable

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## Product Features

- available in ready-made units with length varying from 2 to 42 m,
- terminated at one end with a 1.5 m long power supply conductor with a sealed plug and with a thermostat at the other end,
- power output of the heating cable: 12 W/m,
- power supply voltage: 230 V, 50/60 Hz,
- min. installation temperature:  $-5^{\circ}\text{C}$ ,
- max. operating temperature:  $70^{\circ}\text{C}$ ,
- min. cable bending radius: 3.5 D,
- controls: built-in bimetal thermostat.

operation on:  $+3^{\circ}\text{C}$

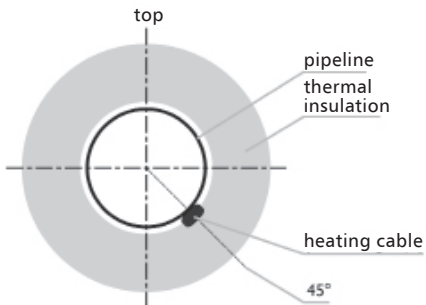
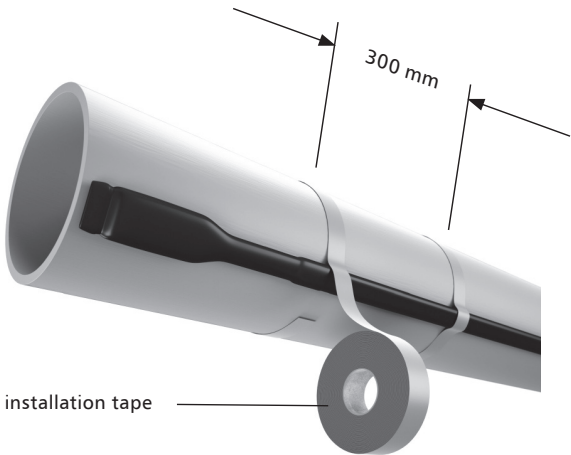
operation off:  $+10^{\circ}\text{C}$



# Installation

## Stage 1

The selected length of the heating cable should match the length of the pipe to be heated. Place the cable along the pipe, fixing with installation tape (included in the package), as shown in the diagram. Place the thermostat at this end of the pipe which will be exposed to lowest ambient temperatures.



# Heating Cable

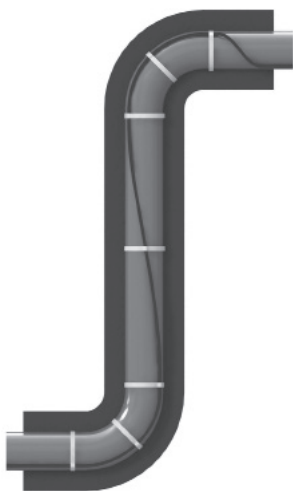
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## NOTE:

If ELEKTRA FreezeTec® heating cable's length slightly exceeds that of the pipe, the cable can be positioned spirally along the pipe.



When heating plastic pipes, use self-adhesive aluminium tape under the heating cable.

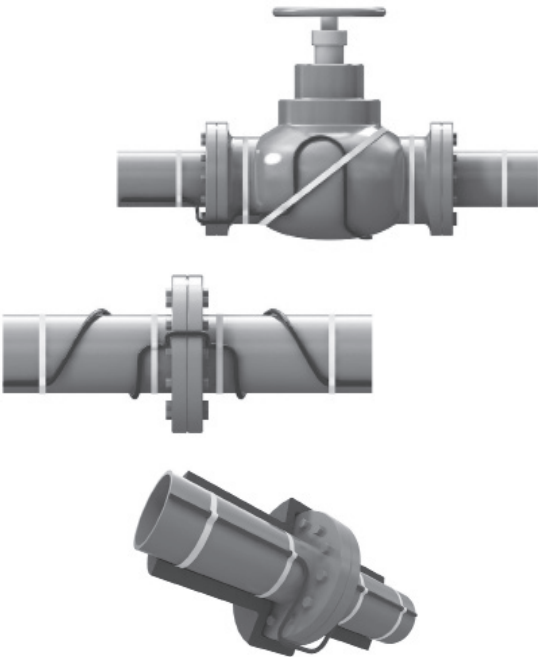


Positioning the heating cable on bends and elbows

## CAUTION:

Heating cables must not cross or be brought nearer than the distance of 5 cm max.





#### Positioning the heating cable on valves and flanges

##### NOTE:

The fixed power supply conductor cannot be replaced. In case the power conductor becomes damaged, the entire device becomes non-operational.



##### NOTE:

The appliance may be used by children over 8 years of age and persons with reduced physical, sensory or mental capabilities, or lacking experience or knowledge, providing they are supervised, or have received instruction in safe use of the appliance and understand the hazards. Children must not play with the device. Cleaning and user maintenance must not be carried out by children unless supervised.



# Heating Cable

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## Stage 2

When the cable has been positioned on the pipe, cover it on the entire length with self-adhesive aluminum tape. This will keep the cable directly at the pipe's surface which facilitates heat transfer. Moreover, the tape will prevent the cable from being pushed into the thermal insulation layer thus protecting the cable from potential overheating.

## Stage 3

The pipes with heating cables positioned on them should be covered with a layer of insulation. The thickness of the insulation will depend on the ambient minimum temperature to be encountered in the vicinity of the insulated pipe.

Pipe's internal diameter		Minimum ambient temperature		
		-15°C	-25°C	-35°C
DN [mm]	Inches	Insulation's thickness [mm]		
8	¼	9	9	9
15	½	9	9	9
20	¾	9	9	13
25	1	9	9	13
32	1 ¼	9	13	19
40	1 ½	9	13	19
50	2	9	13	19

## Operation

Connect ELEKTRA FreezeTec® heating cable to mains. Power supply installation must be equipped with a residual current device of the sensitivity level  $\Delta \leq 30$  mA. The RCD does not have to be dedicated to the FreezeTec® heating cable, it can be a common device used for other circuits/equipment.



## Warranty Conditions

ELEKTRA company grants a 3 year-long warranty (from the date of purchase) for the ELEKTRA FreezeTec® heating cables.

1. For the warranty to apply, the following is required:
  - a. the heating system was installed in compliance with this manual,
  - b. proof of purchase for the heating cable is included.
2. The Warranty is void if persons other than an ELEKTRA-certified installer attempted to repair the product.
3. The Warranty does not cover:
  - a. mechanical damage,
  - b. damage due to unsuitable power supply,
  - c. lack of adequate overload and differential protection measures,
  - d. damage resulting from electrical connection performed in violation of the regulations in force.
4. As part of the Warranty service, ELEKTRA undertakes to reimburse all costs incurred solely in connection with repairing or replacing a defective heating mat.
5. The Warranty covering the purchased commercial goods does not exclude, limit or suspend other Buyer's rights resulting from the incompatibility of the goods purchased with the agreement of purchase.

### NOTE:

The Warranty claims must be registered with the proof of purchase, in the place of purchase or the offices of ELEKTRA.

