

ELEKTRA
SelfTec® DW
ready2heat



- Self-regulating heating cables

Application

ELEKTRA SelfTec®DW ready2heat heating cables have been designed to protect water pipes and pipelines against freezing.

They can be utilised in simple systems with pipe diameters up to 2". No external control is required, the ELEKTRA SelfTec®DW ready2heat use the properties of self-regulating cables.

With temperatures above 0°C, the cable's power supply must be switched off.

The cable can be installed:

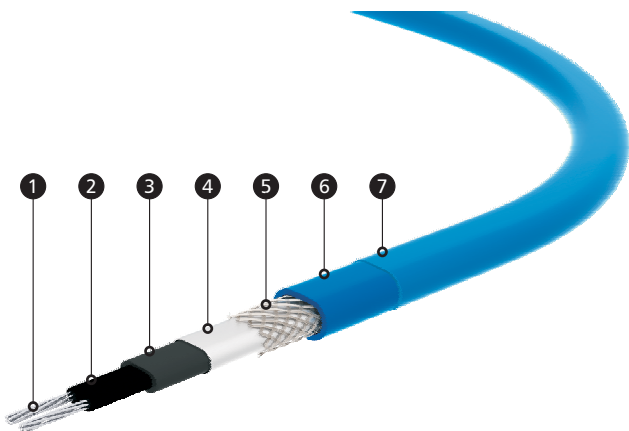
- inside pipes,
- outside pipes, under the layer of thermal insulation.

Placing the heating cables inside pipes can be performed in pipelines already in operation. Such installation method does not require demounting of insulation and consequent increase holes through the fabric of the building. Heating cables can be installed inside pipes in underground pipelines. The cable has been approved for contact with drinking water.

Positioning the heating cable outside pipelines is recommended for construction of new systems, or for systems where no thermal insulation has been laid yet.

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SelfTec® DW ready2heat



- ① tin-coated multi-wire copper conductor
- ② self-regulating conductive core
- ③ modified polyolefin insulation
- ④ PET covered aluminum foil shield
- ⑤ tinned copper braiding
- ⑥ modified polyolefin first outer sheath
- ⑦ LDPE second outer sheath certified for drinking water applications

Product features

ELEKTRA SelfTec®DW ready2heat
self-regulating heating cables

- terminated with a 1.5 m long power supply conductor with a sealed plug
- feature double-layer sheath:
modified polyolefin and LDPE second outer sheath certified for drinking water applications
- power output at 10°C:
 - in the air – 10 W
 - in the water – 16 W
- power supply: 230V 50/60 Hz
- external dimensions: $\approx 7 \times 10$ mm
- min. installation temperature: -25°C
- max. operating temperature: +65°C
- min. cable bending radius: 3.5 D
- IP rating: IPX8
- max. protection: 10A type C circuit breaker

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SelfTec®DW ready2heat



- ① power supply conductor
- ② sealed plug
- ③ ELEKTRA SelfTec®DW
self-regulating heating cable
- ④ end termination

Materials and tools

required for the installation of heating cables
inside pipes

- ELEKTRA SelfTec®DW ready2heat – included
self-regulating heating cable in the set
- set of plumbing lead-throughs – available
H-LT for 1/2", 3/4", 1" pipes in the offer
- tee joint for the pipe where
the heating cable will be entered
- sealing tape for pipes
- plumbing wrenches

required for the installation of heating cables
outside pipes

- ELEKTRA SelfTec®DW ready2heat – included
self-regulating heating cable in the set
- self-adhesive installation tape – included
in the set
- self-adhesive aluminium foil – available
min. 0.06 mm thick, in the offer
approx. 50 mm wide
- thermal insulation for pipes

Installation of heating cables inside pipes

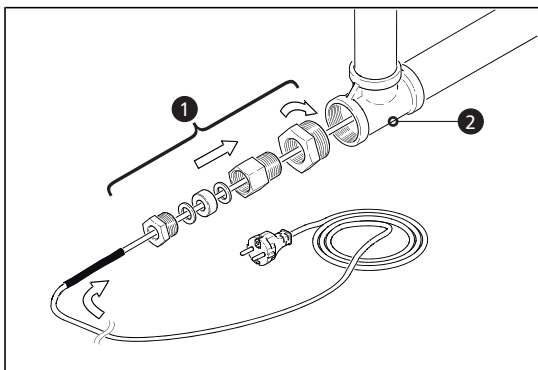


Mount the plumbing tee joint on the pipeline in order to position the heating cable inside the pipe with a plumbing lead-through. The set of plumbing H-LT lead-throughs for 1/2", 3/4", 1" pipes is available in the offer. If the pipe's diameter is larger than 1", use the a reducing tee joint with a proper branch (with internal thread 1"), on which the lead-through will be mounted.

The relevant self-regulating ELEKTRA SelfTec®DW ready2heat heating cable should be selected to match the pipeline's length (the cable of the same length or shorter).

1. Entering the cable into a right angle-shaped pipeline:

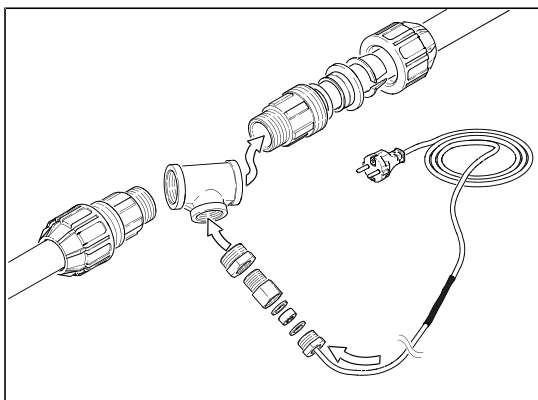
- Lead the cable through the elements of the lead-through and enter through the tee joint into the pipeline.
- When the cable has been entered, carefully mount the lead-through to ensure that the installation is tight.



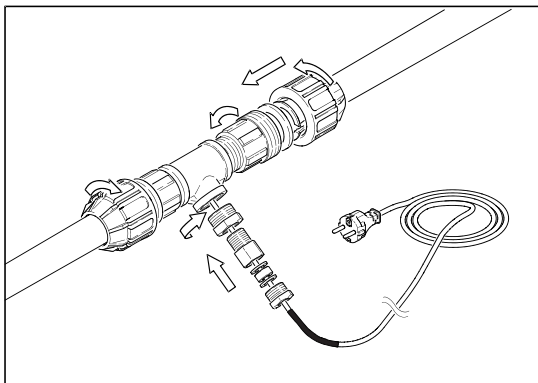
- ① plumbing H-LT lead-through
- ② plumbing tee joint

2. Entering the cable into a line-shaped pipeline (the so called "tapping"):

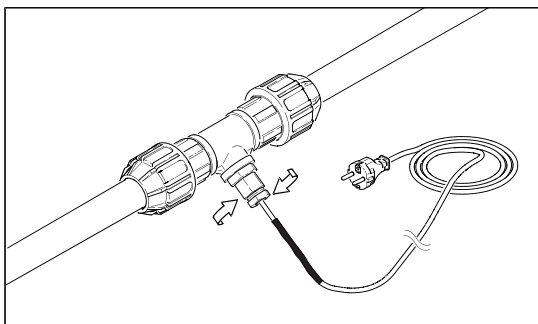
- Lead the cable through the elements of the H-LT lead-through and then through the tee joint and enter into the pipeline.



- When the cable has been entered, mount the tee joint on the pipeline.



- Then mount the H-LT lead-through.



Note



When leading the cable is through the H-LT lead-through, moisten it with water to make it easier for the cable to slide through.

Notice



When leading the cable through the H-LT lead-through, the heating cable must not become dirty.

Installation of heating cables on the pipe

- The relevant self-regulating ELEKTRA SelfTec®DW ready2heat heating cable should be selected to match the pipeline's length (the cable of the same length or shorter).
- Mount the heating cable alongside the pipeline in its bottom part with self-adhesive installation tape fixed with the distancing of 30 cm.



- On plastic pipelines, additionally fix self-adhesive aluminium foil, under the heating cable to improve the temperature distribution on the surface of the pipeline.



- When the heating cable has been secured, fix the self-adhesive aluminium foil of the min. thickness of 0.06 mm and approx. 50 mm width to the cable on its entire length to facilitate both the heat transfer from the cable, as well as heat transfer to the pipeline. Additionally, the aluminium tape will secure the cable from being pulled into the thermal insulation.

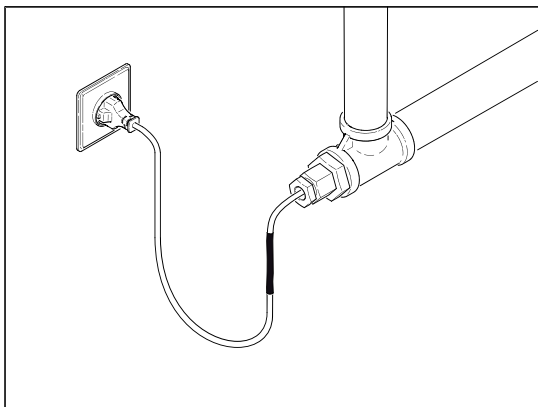


- After the heating cable has been installed on the pipeline, place the thermal insulation on it.



Operation

Turning on the system is done by plugging in the plug.



Self-regulating cables are characterized by variable power output depending on ambient temperature. The lower the temperature, the higher heat

output of the heating cable, and consequently the higher amount of emitted heat. Even though the cable is self-regulating, in temperatures above 0°C the cable also takes in certain amount of electric energy.

To eliminate the unnecessary energy intake in temperatures above 0°C, switch off the power supply of the self-regulating heating cable.

Note



Residual current device (RCD) having a residual current not exceeding 30 mA is required.

Screen of the heating cable shall be connected to an earth terminal.

The installed heating cable shall be designated with appropriate caution signs or markings, positioned in relevant locations, such as power connection fittings. The heating cable route constitutes a part of electrical documentation following the installation, and it should be acknowledged in such documentation.

Do not use in areas subject to high mechanical loads or impact.

Warranty

ELEKTRA company grants a 3 year-long warranty (from the date of purchase) for the ELEKTRA SelfTec[®]DW ready2heat heating cables.

Warranty conditions

1. Warranty claims requires:
 - a. that the heating system has been executed in full accordance with the Installation Instructions herein,
 - b. presentation of the proof of purchase of the heating cable under complaint.
2. The Warranty loses validity if any attempt at repair has been undertaken by an unauthorised installer.
3. The Warranty does not cover the damages inflicted as a result of:
 - a. mechanical fault,
 - b. incompatible power supply,
 - c. lack of adequate overload and differential protection measures, in electric systems supplying heating cables,
 - d. no disconnection from power supply of the heating cable in temperatures above 0°C.
4. Within the Warranty herein, ELEKTRA undertakes to bear exclusively the costs required to cover the necessary repairs to the heating cable itself, or to exchange the cable.

Note



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