



# ELTRACE

## CONSTANT POWER HEATING CABLE



## CONSTANT WATTAGE HEATING CABLE

The main feature of parallel heating cables is to have a resistive wire spiral wound around an insulator. This makes it possible to obtain a constant power per linear meter regardless of its length. The contact with the conductors is done alternately according to the length of the heating module (generally every meter, but this can vary according to the needs).

The cable then forms a system of resistors in parallel powered by two conductors. When a voltage is applied in the conductors, the resistive heating wire receives the same voltage between all the points of contact, the power per linear meter of cable is then independent of its length.

The main applications of these constant power parallel heating cables are defrosting in cold rooms, joints, doors, trays, drain pipes, etc.

They are also widely used to prevent the formation of condensation water in control cabinets. They can also be used for frost free pipes, temperature maintenance of tanks, hoppers, elevators and other applications such as compressors, boilers, tanks, etc.

### TYPE OF REFERENCES

Type	Application	Bus Wire	Max Temp.	Description
ELP-AL	Industry	2 x 3.3 mm <sup>2</sup>	>200°C	PFA
ELP-S	Industry	2 x 1.5 mm <sup>2</sup>	>100°C	Silicone
ELP-SB	Industry	2 x 1.5 mm <sup>2</sup>	225°C	Double Silicone, Grande Section
ELP-SPS	Refrigeration	2 x 0.5 mm <sup>2</sup>	80°C	Silicone ultra fin, Petite Section
ELP-P	Low Temp.	2 x 1.5 mm <sup>2</sup>	35°C	PVC
ELR-S	Refrigeration	2 x 0.5 mm <sup>2</sup>	50°C	Silicone Rond

Reference	Bus Wire	First insulation	Braid	Overjacket
ELP-AL-BOT	2 x 3.3 mm <sup>2</sup>	PFA	X	PFA
ELP-S	2 x 1.5 mm <sup>2</sup>	Silicone		
ELP-S-B	2 x 1.5 mm <sup>2</sup>	Silicone	X	
ELP-S-BO	2 x 1.5 mm <sup>2</sup>	Silicone	X	Silicone
ELP-SB	2 x 1.5 mm <sup>2</sup>	Silicone		
ELP-SB-B	2 x 1.5 mm <sup>2</sup>	Silicone	X	
ELP-SB-BO	2 x 1.5 mm <sup>2</sup>	Silicone	X	Silicone
ELP-SPS	2 x 0.5 mm <sup>2</sup>	Silicone		
ELP-SPS-B	2 x 0.5 mm <sup>2</sup>	Silicone	X	
ELP-SPS-BO	2 x 0.5 mm <sup>2</sup>	Silicone	X	Silicone
ELP-P	2 x 1.5 mm <sup>2</sup>	PVC		
ELR-S	2 x 1mm <sup>2</sup>	Silicone		

### OTHER CONSTRUCTIONS ON DEMAND

ELP = ELTRACE PARALLELE

A = PFA

B = Braid

S = Silicone

BO = Braid & Overjacket

SB = Double Silicone

BOT = Braid & Teflon™ Overjacket

SP = Low section Silicone

P = PVC

## FROST PROTECTION HEATING CABLE

### AQUACABLE™ with one connector, safety-plug and thermostat (+5°C)

PLUG AND HEAT – RELIABLY FROST-PROOF

The AQUACABLE heating cable are designed to prevent any risk of bursting pipes due to freezing. Designed for protection against freeze your pipes.

Thanks to its electrical outlet and integrated thermostat, installation is simple, fast and safely. The power of 10 W/m cable prohibits overheating your pipes while ensuring optimum antifreeze protection. When it is cold, the thermostat switches the operation of the heating cable. And when it's hot, the thermostat prevents the passage of current for the purpose of saving energy. The cable is made of Thermoplastic with mechanical protection braid and earthing and an outer sheath of protection.

Référence	Power (w)	Length (m)
AQUACABLE-1	10 W	1m
AQUACABLE-2	20 W	2m
AQUACABLE-3	30 W	3m
AQUACABLE-4	40 W	4m
AQUACABLE-5	50 W	5m
AQUACABLE-6	60 W	6m
AQUACABLE-8	80 W	8m
AQUACABLE-10	100 W	10m
AQUACABLE-12	120 W	12m
AQUACABLE-14	140 W	14m
AQUACABLE-18	180 W	18m
AQUACABLE-22	220 W	22m
AQUACABLE-24	240 W	24m
AQUACABLE-28	280 W	28m
AQUACABLE-32	320 W	32m
AQUACABLE-36	360 W	36m
AQUACABLE-42	420 W	42m
AQUACABLE-48	480 W	48m
AQUACABLE-50	500 W	50m



PRODUCTS QUALIFICATIONS  
CE, IPx7



**In Accordance with NF C15-100**

#### TECHNICAL DETAILS:

- Nominal voltage: 230 Volt
- Exterior diameter: approx. 9.00 mm
- Smallest bending radius: 45 mm
- Resistance tolerance: -5% / +10%
- Nominal limit temperature: 65 °C (max)
- Cold water supply tubing: 1 x 2.00 m
- Minimum temperature for laying: 5°C
- Cold / warm transition: seamless
- Temperature regulator 16A: +5°C on / +15°C off
- Protection: IPX7
- Max. top surface heating: 10 W/m

## INSTALLATION INSTRUCTIONS

### Antifreeze heating cables - AQUACABLE

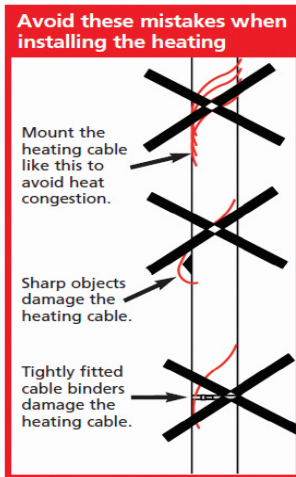
#### IMPORTANT INSTALLATION INFORMATION

- ⇒ Faulty electrical installation can cause an electric shock or a short circuit. To ensure the best possible protection of people, animals and equipment it is categorically stipulated that a faulty current protection switch (FI) 30 mA is fitted. Observe the specific regulations of your country.
- ⇒ The heating cable and the connection lead (respectively plug) must not come into contact with water.
- ⇒ The antifreeze heating must only be used for water pipelines up to DN 40 (1½") diameter.
- ⇒ Connecting up the heating cable must be done according to VDE 0100 and may only be carried out by authorized specialists.
- ⇒ The heating cable must be fitted horizontally on the underside of the tubing.
- ⇒ The heating cable must be the same length as the length of the tubing.
- ⇒ The thermostat at the end of the heating cable must not come under mechanical stress. Neither should the thermostat be bent or squeezed by hand or by any tool.
- ⇒ The thermostat is to be carefully fitted to the right and left of the tubing. Only lay the thermostat with temperature resistant cable binder in a distance of 600 mm.
- ⇒ The frost protection heating element is to be positioned at least 30 mm from flammable materials for fire prevention reasons.
- ⇒ A fireproof mineral wool or foam insulation is to be mounted.
- ⇒ Mineral wool insulation can absorb moisture, foam insulation does not normally absorb moisture.
- ⇒ The heating element is neither to be shortened nor lengthened. A shortening can cause overheating and a lengthening results in the required heat no longer being produced.
- ⇒ The frost protection heating element is never to be used when coiled up as there is otherwise a risk that the insulation can be damaged as a result of overheating.
- ⇒ Heating cabling must not cross over itself or lie side by side.
- ⇒ If the heating cable is too long owing to a project planning mistake, it may not be wound around the tube in narrow swirls. This would cause congestion heat. The standard temperature limit is 65°C.
- ⇒ Protect the heating cable against sharp edges, oil or heat. (See the diagram on the left)
- ⇒ Please make sure before installing the frost protection tube heating that the area around the tube is freely accessible and not obstructed. Remove any sharp edges and flammable materials.
- ⇒ Power supply: The heating must only be operated by using a grounding-type receptacle and VDE-approved cables.
- ⇒ The frost protection tube heating should only be started at the beginning of the winter season. (Simply put the plug in a suitable receptacle.)
- ⇒ Please inspect the heating before using it, whether it shows any signs of damage.



Maintain the following insulation thicknesses:					
Pipe size (inch)	½	¾	1	1 ¼	1 ½
Nominal width (mm)	15	20	25	32	40
Insulation* (mm)	20	20	20	30	40

## SAFETY REGULATIONS



- ⇒ The heating cable may only be installed according to the specified installation plan.
- ⇒ The heating cable may only be connected up to a voltage supply of 230 volts.
- ⇒ The heating cable may under no circumstances be shortened or damaged.
- ⇒ The heating cable must be laid in such a manner that it is not accessible to animals or children.
- ⇒ Only use the heating cable for the purpose outlined in the installation instructions.
- ⇒ If you should discover that the heating cable is damaged then immediately switch off the 230 voltage supply and replace the heating cable.
- ⇒ Never place the heating cable in the vicinity of explosive substances, objects or gases.
- ⇒ It is stipulated that an FI-protection switch with 30 mA is fitted. Refer to the installation instructions.

## FUNCTION

The heating cable is there to heat water supply leads down to  $-20^{\circ}\text{C}$  and is laid with a 230 voltage alternating current according to protection class I.

The thermostat should assess and monitor the temperature at the position of the tube where the temperature is at its lowest.

The thermostat makes sure that the supply of electrical energy is reduced to the minimum amount required.

The minimum measuring area, the surface of the thermostat (see drawing below) is to be attached directly to the tubing with either adhesive tape next to the thermostat or two plastic cable binders around the tubing.

This binding must not exert any pressure on the thermostat.

This would cause a deformation of the connection segment. For protection against frost set the designated thermostat to  $+5^{\circ}\text{C}$ .

A relatively large switch hysteresis ensures the warming up of the entire tubing network, so that the energy supply will be first interrupted when the energy supply exceeds  $15^{\circ}\text{C}$ .

The hysteresis at the same time reduces the amount of switching on and off subsequently facilitating the thermostat to operate without any trouble over a long period of time.

Any remaining length of the heating cable will be used up by laying it along the length of the tubing in large loops. Nevertheless any criss-crossing of the heating cable must be avoided!

Fastening the heating cable is done with aluminium adhesive tape or with randomly placed plastic cable binders. If the cable binders are fitted too tightly they will damage the heating cable. Operating safely in frost conditions down to  $-20^{\circ}\text{C}$  can only be guaranteed by using the insulation material we specify. Aluminium adhesive tape wound around the heating cable facilitates installation, prevents punctual heat extrusion off the tubing and distributes warmth evenly.

## ENVIRONMENTAL PROTECTION AND WASTE DISPOSAL

The professional waste disposal of heating cables after they have completed their life span is the responsibility of the operator. Adhere to the pertaining regulations of your country.

## DECLARATION OF CONFORMITY

This appliance conforms to the stipulations of the following EU guidelines. 89/336 / EEC. 91 / 263 / EEC. 92 / 31 / EEC. 73 / 23 / EEC. 93 / 68 / EEC.





## INSULATION

An insulation layer such as Armaflex with a minimum thickness of 20 mm which is quite usual for heating tubing reduces the heating energy requirements. At the same time when heating up and cooling down it allows the necessary shifting of the heating cable in relation to the water tubing. The thermostat must not be insulated from the water supply tubing and has to assess the water tubing temperature at any time.

## SPECIFIC REGULATIONS

### 1. PURPOSE

The heating cable is exclusively made for heating water pipelines. Plastic pipes must be completely wrapped in aluminium foil before installation.

### 2. COMMISSIONING

The safety regulations have to be adhered to. The installation instructions are to be read through before you begin commissioning the heating cables.

## TESTING AND HEATING-UP PROTOCOL

Regular testing of the appliance has to be carried out by the user according to: BGV A3 and DIN VDE

Object:		Date of laying:		
Authorized electrician:		Date of commissioning:		
Serial no.	Total resistance (Ohm)		Insulation resistance (k-Ohm)	
(heating cable):	Before installation	After installation	Before installation	After installation

0701/0702 (VDE 0701/0702):2008-06

### THE FOLLOWING TESTS MUST BE PERFORMED:

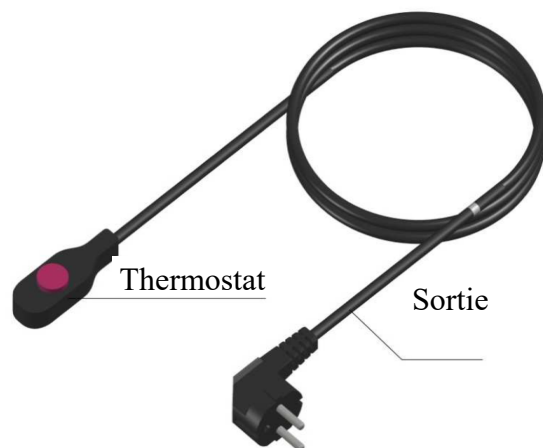
- Earth wire resistance
- Insulation resistance
- Replacement leakage current
- Voltage test

## FROST PROTECTION HEATING CABLE

### PROTIGEL™

**FROST PROTECTION AGAINST ICE, DEFROST METALIC OR PLASTIC PIPE**  
ELTRACE de-icing heating cables PROTIGEL are studied for being installed on pipes which are exposed to low temperatures in order to preserve the liquid situated inside them from freezing.

Thanks to their extreme flexibility and functionality, given to the specific characteristics of the materials which constitute the cable itself and thanks to their particular technology, these cables can work within a temperature range from -20°C to +80°C. The heating element is surrounded in a multi thread shielding which guarantees an elevated mechanical protection and a superior temperature dissipation. Moreover, this braiding allows the heating cable to be earthed. The switching on is automatically controlled by a built-in thermostat which activates the heating element at a temperature of +3°C and switches it off at a temperature of +13°C.



Reference	Length (m)	Power (W)
PROTIGEL-2	2	30
PROTIGEL-4	4	60
PROTIGEL-6	6	90
PROTIGEL-8	8	120
PROTIGEL-10	10	150
PROTIGEL-15	15	225
PROTIGEL-20	20	300
PROTIGEL-25	25	375
PROTIGEL-30	30	450
PROTIGEL-35	35	525
PROTIGEL-40	40	600
PROTIGEL-45	45	675
PROTIGEL-50	50	750
PROTIGEL-60	60	900

Note: In the case of plastic pipes we recommend placing an aluminum adhesive on the pipe in order to promote heat dissipation

#### DATA SHEET

Alloy of the heating element : Nickel-Copper, Nickel-Chrome  
Nominal Voltage 230V  
Power tolerance -10%/+5%  
Max temperature of exposition undervoltage 80°C  
Minimum Temperature: -20°C  
Diameter: approx 6.5mm  
Minimum Bending radius: 5x Ø  
Sortie froide: 1m  
Indice de protection : IP67  
Longueurs standard de 2m à 60m

#### PRODUCTS QUALIFICATIONS

CE Declaration of conformity  
In compliance with 2006/95/EEC DIRECTIVE.  
Design, manufacture and testing in compliance with harmonized standards  
EN 60335.



## DE-ICING HEATING CABLES FOR GUTTER

### GuttaCable™ « Gutter »

FOR GUTTER HEATING



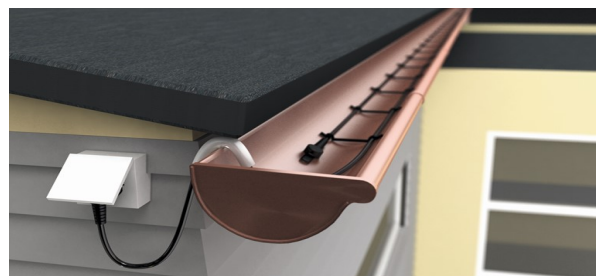
Complies with the NF C15-100

The GuttaCABLE™ system is conceived to prevent frost formation or snow in gutters. GuttaCABLE™ avoids bursting of gutter's descents, as well as possible seepage caused by cold. Its plug and integrated thermostat allows an easy installation and use, and in total safety. Cables power of 30w/m guarantee you the necessary power to avoid snow or ice formation. When it's cold, thermostat set in motion the cable. And when it's warm, the thermostat avoid the cable to be set in motion uselessly and to waste energy. Cable is made of Thermoplastic with a mechanic braid protection and of earth connexion, as well as a resistant protection overjacket UV (UV rays).

#### NOMINALES VALUES

Nominale voltage 230V  
 Bending radius mini 5 x dA  
 Insulation: PTFE  
 Power: approx. 30 W/m  
 Cold lead connexion cable: 1x4,00 m (1,00 mm<sup>2</sup>)  
 Resistance tolerance -5% / +10 %  
 Max exposition temperatur undervoltage 90°C  
 Outside diameter: approx. 8,20 mm  
 Hot/Cold cable junction: sleeveless, without shrink technology

Reference	Length (m)	Power (W)
GUTTACABLE-4	4	120
GUTTACABLE-5	5	151
GUTTACABLE-6	6	196
GUTTACABLE-10	10	293
GUTTACABLE-12	12	367
GUTTACABLE-14	14	419
GUTTACABLE-16	16	471
GUTTACABLE-20	20	627
GUTTACABLE-23	23	700
GUTTACABLE-30	30	919
GUTTACABLE-36	36	1103
GUTTACABLE-41	41	1265
GUTTACABLE-49	49	1440
GUTTACABLE-55	55	1719
GUTTACABLE-70	70	2062



PRODUCTS QUALIFICATIONS





## HEATING CABLE WITH THERMOSTAT

### TRACEBAC

#### FOR FREEZE PROTECTION IN CONDENSAT RECEPTACLE

Electric heating cables type TRACEBAC assure you the best electrical tracing. They are conceived to prevent the ice risk formation in condensat receptacle, retention receptacle...

With integrated thermostat, the heating cable for condensat receptacle allows an easy and safe use. Its thermostat allows the heating cable to be set in motion only when temperature in under 5°C.

The power of 30w/m and its incorporated thermostat forbid any overheating.

When it's cold, the thermostat set in motion the cable heating. And when it's war, thermostat avoid the cable to be set in motion in order to avoid any energy waste.

This cable is made of silicone with a waterproof thermostat.



Reference	Power	Length
TRACE-BAC-2	60 W	2m heating + 1m of cold electrical link
TRACE-BAC-4	120 W	4m heating + 2m of cold electrical link
TRACE-BAC-5	150 W	5m heating + 2m of cold electrical link
TRACE-BAC-8	240 W	8m heating + 2m of cold electrical link

#### NOMINALES VALUES

Nominale voltage 230V

Power tolerance +/-2.5W

Max temperature under voltage +150°C

Min temperature -40°C

Bending radius minimum 5 x Ad

Cold lead

Dimension 5.5±0.2mm

Silicone cable insulation

Silicone overjacket insulation

Minimale installation temperature - 35°C

Safety level : IP x7

#### PRODUCTS QUALIFICATIONS

CE Declaration, RoHS, IPx7



## SILICONE HEATING CABLES WITH CONSTANT POWER 40W/M

### DRAINFREE™

FOR FREEZE PROTECTION OF COLD-ROOMS PIPERS FLOW,...

The DRAINFREE range is used for the freeze protection of pipers flow in cold-rooms. Cables must be put under voltage only when defroster cycle.

In the case plastic pipers are installed in cold-rooms by low negative temperatures, we do advise you to use self regulating heating cable type TRACECO-20 ou TRACECO-30 with built-in made in factory.

Other lengths and powers are available on demand.

An heating cable finished and controled in factory with standard powers and lengths. Perfectly waterproof because of the interated cold built-in, available on stock.

Silicone insulation -50°C to +180°C

#### DESCRIPTION

Heating cable in Nickel-Chromium  
Silicone insulation  
Section : 6,5 x 5,5 mm  
Standards length from 1m to 6m  
Built-in : waterproof silicone casting of 60mm length  
Cold lead length : 1.00m



Reference	Description	Power
<b>DrainFree-1</b>	Silicone heating cable, 40w/m, Length 1m, unique cold lead 1x1m	40 W
<b>DrainFree-2</b>	Silicone heating cable, 40w/m, Length 2m, unique cold lead 1x1m	80 W
<b>DrainFree-3</b>	Silicone heating cable, 40w/m, Length 3m, unique cold lead 1x1m	120 W
<b>DrainFree-4</b>	Silicone heating cable, 40w/m, Length 4m, unique cold lead 1x1m	160 W
<b>DrainFree-5</b>	Silicone heating cable, 40w/m, Length 5m, unique cold lead 1x1m	200 W
<b>DrainFree-6</b>	Silicone heating cable, 40w/m, Length 6m, unique cold lead 1x1m	240 W

#### NOMINALES VALUES

Nominale voltage 230V  
Power tolerance -2.5/+2.5 W  
Max exposition temperature under voltage -50°C  
Max exposition temperature out voltage 180°C  
Bending radius minimum 6 mm  
Max temperature: +180°C  
Min temperature : -50°C  
Flamme retardant: Non propagation to fire, without halogenous

#### PRODUCTS QUALIFICATIONS

CE, IPx7



## CONSTANT WATTAGE PFA HEATING CABLE

### ELP-AL-BOT - Fluoropolymer heating cable

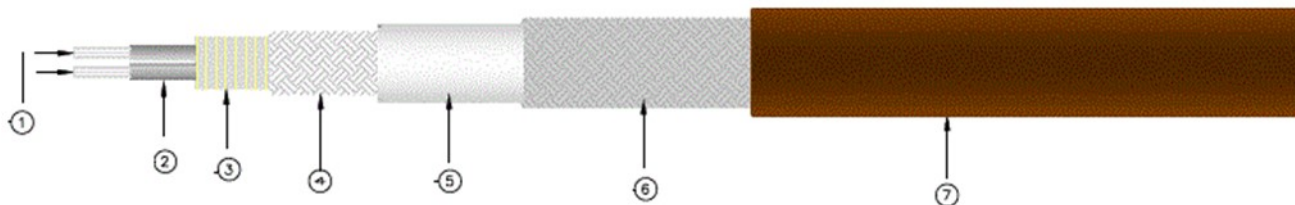
FOR PIPERS OR TANKS HIGH TEMPERATURE MAINTENANCE UP TO 250°C

Length adjustable on site, packed in rolls, the eltrace constant power parallel heating tape represents a saving in application and design time.

Applications : Frost protection or temperature maintenance on pipe or tanks. Temperature maintenance in zone in chemical and petrochemical industry. Frost protection of condensation lines, steam pruge,. Temperature maintenance of rubber gas pipe analyser.

Advantages : Storage in rolls, Finishing on site, Built-in cold terminations, High safety thanks to modular design.

Reference	Module	Power	Voltage	Max Temp. Energized	Max Length Circuit
ELP-AL-BOT-30	1.00 m	30 W/m	230 V	170°C	169 m
ELP-AL-BOT-30-3	1.75 m 1.75 m	30 W/m 10 W/m	400 V 230 V	170°C 200°C	245 m 190 m
ELP-AL-BOT-45	0.81 m	45 W/m	230 V	165°C	135 m
ELP-AL-BOT-60	0.70 m	60 W/m	230 V	150°C	117 m



#### DESCRIPTION

Dimensions: 11 × 7.5 mm  
 Bus wire: 2 × 3.3 mm<sup>2</sup>  
 First insulation: Fluoropolymer - 0,45 mm  
 Bi-metallic alloy  
 Second insulation: Fluoropolymer - 0,6 mm  
 Overjacket: Fluoropolymer - 0,4 mm

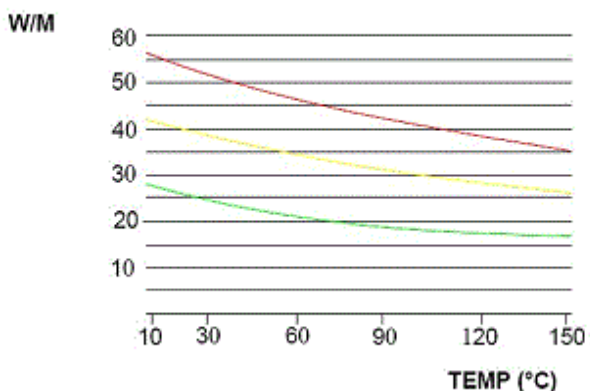
#### DESCRIPTION

1. Bus wire
2. First Insulation: Fluoropolymer
3. Heating element
4. Braid: Fiber glass
5. Outer Insulation: Fluoropolymer
6. Braid
7. Overjacket: Fluoropolymer

#### NOMINALES VALUES

Nominal Voltage: 230V / 400V  
 Power tolerance: -2.5/+2.5 W  
 Minimum Bending radius 5x Ad  
 Min installation Temperature: -60°C  
 Max temp. of exposition off-voltage: 250°C

PRODUCTS QUALIFICATIONS  
 CE, IPx7



## CONSTANT WATTAGE SILICONE HEATING CABLE

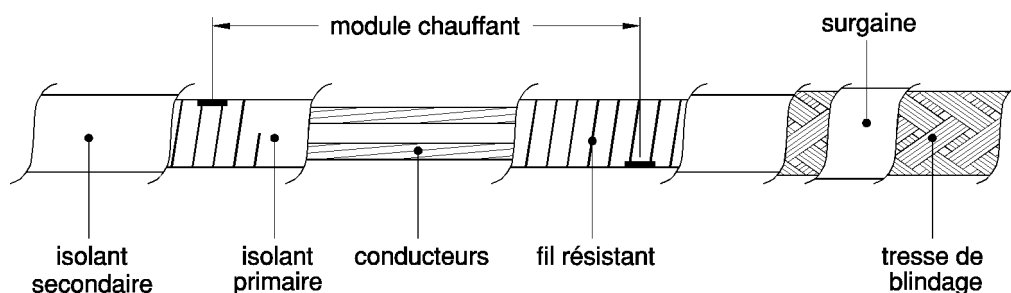
### ELP-SPS

#### FROM FROST PROTECTION TO TEMPERATURE MAINTENANCE...

Length adjustable on site, packed in rolls, the eltrace constant power parallel heating tape type ELP-S-PS represents a saving in application and design time.

For divers applications, such as frost protection or low or average temperature in pipers or tanks. Temperature maintenance of heavy fuel oil lines. Temperature maintenance of food-industry products.

Advantages : Storage in rolls, Finishing on site, Built-in cold terminations, High safety thanks to modular design, Low cost price.



#### DESCRIPTION

- 1- 2 Bus wire
- 2- First Insulation: Silicone
- 3- Heating wire NiCr, CuNi, FeCrAl
- 4- Heating Modul
- 5- Second Insulation
- 6- Braid
- 7- Silicone Over Jacket

Reference	Power	Voltage	Max Temp. Energized	Max Length	Modul
ELP-SPS-10	10 W/m	230V	80°C	160m	1m
ELP-SPS-15	15 W/m	230V	80°C	107m	1m
ELP-SPS-20	20 W/m	230V	80°C	80m	1m
ELP-SPS-30	30 W/m	230V	80°C	53m	1m
ELP-SPS-20-3	20 W/m	400V	80°C	140m	1m
ELP-SPS-30-3	30 W/m	400V	80°C	90m	1m

#### VALEURS NOMINALES

Nominal Voltage: 24V to 230V

First Insulation: silicone  
 Heating wire: nickel-chrome  
 Second insulation: silicone  
 Braid: nickel plated copper  
 Over Jacket: silicone

Max temperature: 200°C  
 Min temperature: - 40°C  
 Bending radius: 20mm  
 Maximum circuit length:  $7 \times V / (W/m)$   
 Ex. 30w/m max lg:  $7 \times 230 / 30 = 53m$

Naked Cable: ELP-SPS  
 With Braid: ELP-SPS-B  
 With Braid and Overjacket: ELP-SPS-BO

#### PRODUCTS QUALIFICATIONS

CE, IPx7



## CONSTANT WATTAGE HEATING CABLE

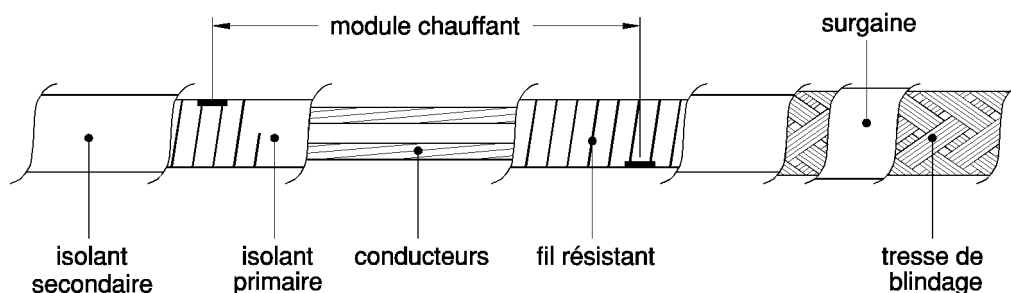
### ELP-S Silicone

FROM FROST PROTECTION TO TEMPERATURE MAINTENANCE...

Length adjustable on site, packed in rolls, the eltrace constant power parallel heating tape type ELP-S represents a saving in application and design time.

Protection from freezing or maintaining at low and medium temperatures of pipes or tanks. Maintaining of diesel oil lines at a given temperature, Maintained temperature of products in the agro-food Industry.

Advantages : Storage in rolls, Finishing on site, Built-in cold terminations, High safety thanks to modular design, Low cost price.



#### DESCRIPTION

- 1- Bus wire: 2 x 1.5mm<sup>2</sup>
- 2- First Insulation: Silicone
- 3- Heating wire

- 4- Heating Modul
- 5- Second Insulation
- 6- Braid
- 7- Silicone Over Jacket

Reference	Power	Voltage	Max Temp. (energized)	Max. Length	Heating Module
ELP-S-10	10 W/m	230 V	160 °C	180m	1m
ELP-S-20	20 W/m	230 V	135 °C	130m	1m
ELP-S-30	30 W/m	230 V	105 °C	100m	1m
ELP-S-40	40 W/m	230 V	90 °C	98m	1m
ELP-S-50	50 W/m	230 V	90 °C	85m	1m
ELP-S-20-3	20 W/m	400 V	135 °C	200m	1m
ELP-S-30-3	30 W/m	400 V	105 °C	170m	1m

#### DATA SHEET

Nominal Voltage: 230 or 400 volts  
 Dimensions : 9,75 x 5,25 mm  
 Bus wire : 1,5 mm<sup>2</sup>  
 First Insulation: Silicone  
 Heating wire: Nickel-Chromium  
 Second insulation: Silicone  
 Braid: Nickel plated copper  
 Over Jacket: Silicone

Maximum temperature: 200°C  
 Minimum Installation temperature: - 20°C

References  
 Naked Cable: ELP-S-xx  
 Cable with Braid: ELP-S-xx-B  
 Cable with braid and overjacket: ELP-S-xx-BO

PRODUCTS QUALIFICATIONS  
 CE, IPx7



## CORDONS CHAUFFANTS À PUISSANCE CONSTANTE SILICONE

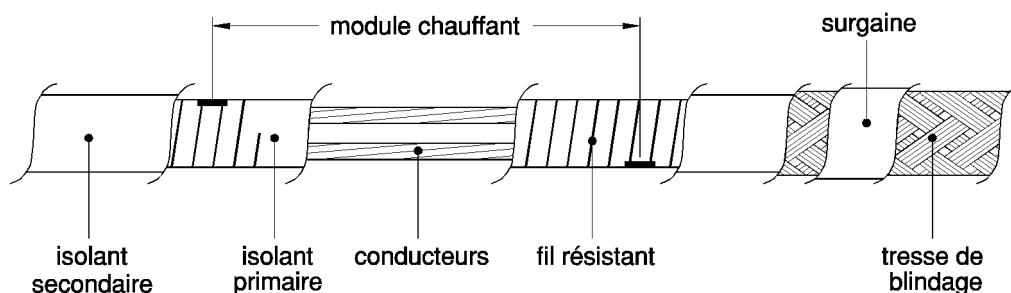
### ELP-SB

POUR LA MISE HORS GEL OU DES MAINTIEN EN TEMPÉRATURE...

De longueur ajustable sur le site, conditionné en bobine, le ruban chauffant parallèle à puissance constante eltrace type ELP-SB permet une économie de temps de pose et d'étude.

Pour des applications diverses telles que la Protection contre le gel ou Maintien en basse et moyenne température des tuyauteries ou réservoirs. Maintien en température de lignes de fuel lourd. Maintien en température de produits dans l'industrie agroalimentaire.

Des avantages comme le Stockage sur bobine, pratique et simple, une finition sur site, des terminaisons froides incorporées. Sécurité importante grâce à sa conception modulaire. Un prix de revient faible.



#### DESCRIPTION

- |                                     |                         |
|-------------------------------------|-------------------------|
| 1- Deux conducteurs                 | 4- Module chauffant     |
| 2- Isolation primaire en silicone   | 5- Isolation secondaire |
| 3- Fil résistant NiCr, CuNi, FeCrAl | 6- Tresse de blindage   |
|                                     | 7- Surgaine silicone    |

Référence	Puissance	Tension	Temp. maximum sous tension	Longueur Maximum sous 230V	Longueur maximum sous 400V	Module Chauffant
<b>ELP-SB-10</b>	10 W/m	230 V	180°C	200m	320m	1m
<b>ELP-SB-15</b>	15 W/m	230 V	170°C	150m	240m	1m
<b>ELP-SB-20</b>	20 W/m	230 V	160°C	130m	210m	1m
<b>ELP-SB-30</b>	30 W/m	230 V	145°C	115m	190m	1m
<b>ELP-SB-40</b>	40 W/m	230 V	120°C	100m	160m	1m
<b>ELP-SB-50</b>	50 W/m	230 V	95°C	85m	130m	1m

#### VALEURS NOMINALES

Tension d'alimentation : 110V / 230V / 400V

Dimensions : 8.8 x 12.5

Isolant primaire : silicone

Résistance : 80/20 Nickel-Chrome

Isolant secondaire : silicone

Tresse de protection : cuivre étamé ou inox

Surgaine : silicone

Température maxi d'exposition hors tension: 225°C

Température minimale: -50°C

Rayon de courbure: 25mm

Étanche

Pas de courant d'appel

Version de base :

ELP-SB

Version avec tresse :

ELP-SB-B

Version avec tresse et surgaine :

ELP-SB-BO

#### PRODUCTS QUALIFICATIONS

CE, IPx7



## CONSTANT WATTAGE SILICONE HEATING CABLE

### ELR<sup>S</sup> - Silicone

#### FROST PROTECTION FOR COLD-ROOMS PIPERS FLOW

Applications : the ELR range is used to protect cold-rooms pipers flow from the frost. Cables are under voltage during defroster cycles.

Advantages : heating cable finished and controlled in factory. A large range of power and standard length. Completely waterproof because of the Built-in cold terminations. Available on stock. Silicone insulation resistant to extrem temperatures from -50 to + 180°C.

#### DESCRIPTION

Heating cable in Nickel-Chromium  
Silicone Insulation  
Section : 6,5 x 5,5 mm  
Standard length from 1m to 12m  
Terminations : silicone Built-in, length 60mm  
Cold exit , length : 0.90m



Reference	Length	Power
ELR-S-30-1	1m	30 W
ELR-S-30-2	2m	60 W
ELR-S-30-3	3m	90 W
ELR-S-30-4	4m	120 W
ELR-S-30-5	5m	150 W
ELR-S-30-6	6m	180 W
ELR-S-30-7	7m	210 W
ELR-S-30-8	8m	240 W
ELR-S-30-9	9m	270 W
ELR-S-30-10	10m	300 W
ELR-S-30-11	11m	330 W
ELR-S-30-12	12m	360 W

Reference	Length	Power
ELR-S-50-1	1m	500 W
ELR-S-50-2	2m	100 W
ELR-S-50-3	3m	150 W
ELR-S-50-4	4m	200 W
ELR-S-50-5	5m	250 W
ELR-S-50-6	6m	300 W
ELR-S-50-7	7m	350 W
ELR-S-50-8	8m	400 W
ELR-S-50-9	9m	450 W
ELR-S-50-10	10m	500 W
ELR-S-50-11	11m	550 W
ELR-S-50-12	12m	600 W

#### DATA SHEET

Nominal Voltage 230V  
Power tolerance -2.5/+2.5 W  
Max temperature of exposition undervoltage -50°C  
Max temperature of exposition off-voltage 180°C  
Bending radius minimum 6 mm  
Max Temperature : +180°C  
Minimum Temperature : -50°C  
Flamme retardant : flamme Non propagation, without halogenous

Note : in plastic pipers case, installed in cold-rooms with low negative temperatures we recommend to use self-regulating heating cables TRACECO-30 W/m with built-in fixed in factory.

#### PRODUCTS QUALIFICATIONS

CE



## CONSTANT WATTAGE THERMOPLASTIC HEATING CABLE

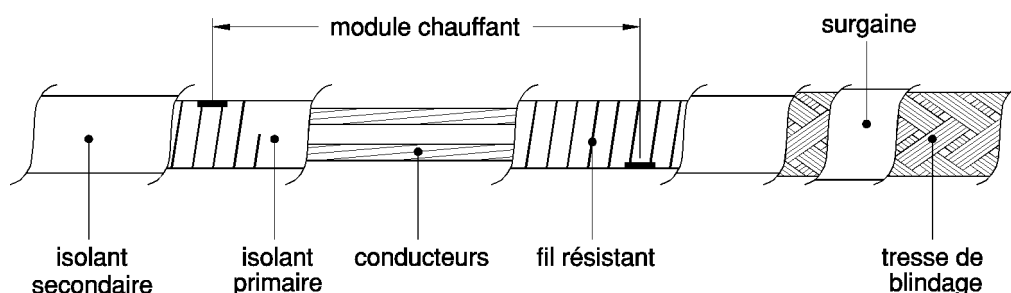
### ELP-P

FOR FROST PROTECTION, LOW TEMPERATURE MAINTENANCE FOR SMALL DIAMETER AND LENGTH PIPERS, GUTTERS, WINNOW, TANK...

Length adjustable on site, packed in rolls, the eltrace constant power parallel heating tape type ELP in Polyolefine represents a saving in application and design time.

Suitable for frost protection or for pipers and tanks low temperature maintenance. Maintenance of food-industry or refrigeration products to a low temperature.

Advantages : Storage in rolls, Finishing on site, Built-in cold terminations, High safety thanks to modular design, Low cost price.



#### DESCRIPTION

- 1- 2 Bus wire: 2 x 1.5mm<sup>2</sup>
- 2- First Insulation: thermoplastic elastomere
- 3- Heating wire nickel chromium
- 4- Heating Modul
- 5- Second Insulation : thermoplastic elastomere
- 6- Braid copper
- 7- Thermoplastic elastomere Over Jacket

Reference	Power	Voltage	Max Temp. Energized	Max Length	Modul
ELP-P-10	10 W/m	230 V	40 °C	160m under 230V / 85m sous 110V	1 m
ELP-P-20	25 W/m	230 V	35 °C	112m under 230V / 65m sous 110V	1 m

#### DATA SHEET

Dimensions naked 8.60 x 5.20 mm (+/- 0.20mm)  
 Dimensions braided 9.20 x 5.80 mm (+/- 0.20mm)  
 Dimensions braided overjacketed 11.20 x 7.80 mm (+/- 0.20mm)  
 Nominal Voltage 230 V or 110V  
 Bending Radius 20mm  
 Standard IEEE 515  
 Color: Blue

Max Temperature: +90°C  
 Min installation Temperature: -20°C

This cable is available in 3 kinds :  
 Naked Cable: ELP-P  
 Braided Cable : ELP-P-B  
 Braided and overjacketed cable : ELP-P-BO

PRODUCTS QUALIFICATIONS  
 Certifications CE





## EDITO

TOUTE LA PROTECTION CONTRE LE GEL ET LE MAINTIEN EN TEMPÉRATURE D'EAU CHAUDE SANITAIRE

Face à toutes les contraintes économiques et techniques, comment faire le bon choix ?

En privilégiant la Qualité, l'Innovation et le Service. ELTRACE, un des leaders du traçage électrique s'engage à vous proposer les solutions les plus favorables en matière de protection contre le gel et de maintien en température. Présent dans le bâtiment, l'énergie, la pétrochimie, l'agroalimentaire, l'acier, ... avec des produits fabriqués en France, ELTRACE conduit votre bien-être...

## CONSTRUCTION MARKET

THE KNOW-HOW

From ice & frost protection for pipes, gutters, roofs, hot water temperature maintenance to a complete range of underfloor heating, ELTRACE provides you

with all its know-how, its range of self-regulating heater tapes TRACECO™ and its innovative fast connection system DOMOCLICK™

Prior diagnosis of your requirements, preventative maintenance programmes, full implementation of projects ...ELTRACE designs and manufactures all types of trace heating systems – self regulating, hazardous area approved equipment, and other heating systems at constant power.



...ELTRACE designs and manufactures all types of trace heating systems – self regulating, hazardous area approved equipment, and other heating systems at constant power.

### FOR FROST PROTECTION OF YOUR PIPES

Easy to use, quick to implement, ELTRACE self regulating heating tapes protect your pipes from damage caused by frost & ice. They can be cut to the desired length on site and provide exceptional strength and durability. ...re le gel de vos tuyauteries

### FOR HOT WATER TEMPERATURE MAINTENANCE

With its self regulating heaters, ELTRACE offers the comfort and control you need. ELTRACE brings you the ideal temperature for your well-being, including disinfection and Legionella prevention, while preserving the environment of wasteful energy. In addition ELTRACE guarantee the security of its installations against all risks of overheating thanks to its innovative system of self-regulation.

### DEFROST GUTTER

Ice causes considerable damage to your roofs and gutters. ELTRACE answer for this is a well proven economical and reliable solution. ELTRACE self regulating heaters provide the perfect response to climate change. Energy efficient and a simple electrical installation, roofs and gutters are safe and free from blockages caused by snow and ice.

### UNDERFLOOR HEATING

A floor heating system from Eltrace will ensure a uniform distribution of heat in your home or office and a comfortable warmth which is easy to control room by room.. The ELTRACE wide range of cables and heating mats are designed for both renovation & New Build applications.

## INDUSTRY

THE DIVERSITY OF THE RANGE FOR EXTREME TEMPERATURES OF -50°C TO 800°C

Thanks to its experience, knowledge and products, ELTRACE provide solutions for your industrial processes. With a full range of heating tapes, heating cables, jackets, hoses, heater mats, and other industrial products, ELTRACE and its engineers will offer the best products in line with the requirements of your installation.



### SELF REGULATING HEATING TAPES

The ELTRACE range of self regulating heater tapes, low and high temperature, ATEX certified, help you to solve all your problems in the temperature range of -50°C to +200°C.



### CONSTANT POWER HEATING TAPES AND CABLES

Our wide range of cables and heater tapes with silicone rubber insulation, FEP, PFA, PTFE, fiberglass or even quartz, guarantee maximum safety in safe and explosive atmospheres.

### JACKETS AND HEATING PANELS

ELTRACE designs and tailor makes heater mats and jackets, to fit perfectly around any kind of equipment - pumps, valves, filters, tanks etc..

## SERVICES

THE INTEGRITY OF A GROUP, THE RESPONSE OF A TEAM.

True to our vocation, Service is a priority of our business. From the design of the installation until the maintenance, you have a warranty "turnkey" incorporating the main study, system design, thermal insulation, performance guarantee and training.

Our team of specialists advises you and accompanies you throughout your project.



## eltraceSERVICES

The integrity of a group, the response of a team. True to our vocation, Service is a priority of our business. From the design of the installation until the maintenance, you have a warranty "turnkey" incorporating the main study, system design, thermal insulation, performance guarantee and training. Our team of specialists advises you and accompanies you throughout your project.

### ELTRACE COMMITS

A genuine code of practice is based on seven commitments which are testament to the reliability and integrity of our services and our products



#### 1- LISTENING

With regular involvement in your industry and a good knowledge of the applications, our specialists make an accurate diagnosis of your installation.



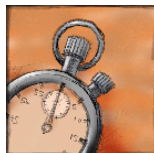
#### 2- COST CONTROL

We are looking for technical solutions to comply with your requirements and at the same time helping to control your costs within the expected budget.



#### 3- RESPONSE

Response to any unexpected design modifications or changes to the planned work schedule ... our teams are adapting to these constraints.



#### 4- DELIVERY COMPLIANCE

We are committed to meeting deadlines for the receipt of goods or work.



#### 5- QUALITY

We guarantee the products to be tested in accordance with the latest standards and to meet your demands and regulations in force.



#### 6- ENVIRONMENT

All our process incorporates the requirements of the Environment both human and technical.



#### 7- PERFORMANCE GUARANTEE

Once the project is designed, we guarantee the performance in accordance with our installation and operating instructions.

## eltracePARTNER

### YOUR TRACE HEATING PARTNER

**Available**