



**HEATING CABLES  
FOR  
REFRIGERATION  
INDUSTRY**





## Important information

The information contained in this catalog is provided for informational purposes. Images, diagrams, drawings, descriptions, information relating to quality, characteristics, composition, power, consumption, applications as well as dimensions and weight are not binding unless otherwise indicated by **ELTRACE**. They do not in any way constitute a promise or a guarantee.

**ELTRACE** expressly reserves the right to correct any errors and to modify the technical data without prior notice.

- √ The equipment offered in this catalog must be connected and put into service by a qualified professional electrician in compliance with the electrical and safety regulations in force in the region where it applies.
- √ The use of a temperature controller is recommended for reasons of energy consumption and for economic reasons. This will ensure more pre-

cise temperature maintenance and substantial energy savings.

- √ It is essential to provide residual current circuit breakers (according to standard EN 62395-1, EN 60519-10) in order to protect users and electrical installations in the event of an incident.

**ELTRACE SAS** reserves the right to change specifications without notice. All **ELTRACE** brands and logos are the property of **ELTRACE SAS**. All other trademarks are the property of their respective owners. At the end of the catalogue, you will find a project design guide to help you collect important information. Examples are available to help you design your own heat tracing system.

Our products are normally available in stock, we invite you to contact us or contact your distributor to be sure.

Our technical design office and our project engineers are at your disposal to help you design and size your facilities.

## NEED ADVICE ON CHOOSING YOUR CABLE? CONTACT US NOW!



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- √ By mail: [info@eltrace.com](mailto:info@eltrace.com)

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### WHY HEATING CABLES IN THE REFRIGERATION INDUSTRY ?

A heating cable, also called heating cord, heating wire, heating cord, heating resistor, is an electrical cable that dissipates calories to prevent freezing or maintains a desired temperature.

There are different types of heating cables suitable for each application. Each heating cable must respect technical and thermal characteristics such as its power, its length, the voltage of use, its coatings in order to be perfectly adapted to its application.

ELTRACE offers you a set of electric heating cables which cover all the needs of the refrigeration industry. From heated benches for cold room door sills to heating mats for floors, self-regulating heating cords for door seals, not forgetting flow heating resistors in the condensate drain pipe combined with cabinets specially adapted to the various situations, our engineers will be able to guide you in your prescriptions and installations.

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## ELSAS - Cold room thresholds

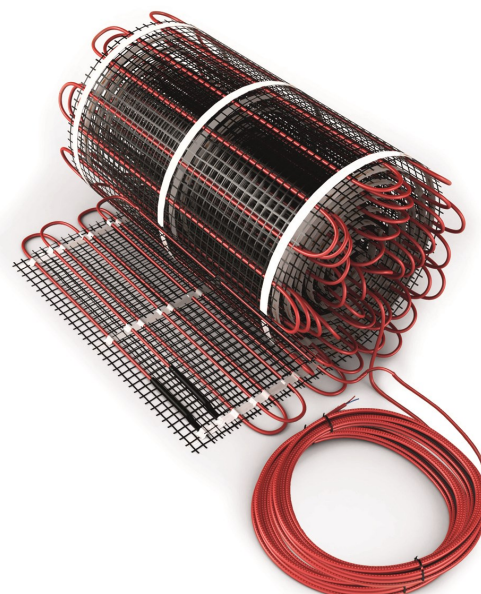
### HEATING MAT WITH TWO HEATING CABLES: MAIN AND RESCUE

#### PRODUCT OVERVIEW

ELSAS electric heating mats sink into the concrete. They prevent the formation of ice on the surface of freezer doors or storage rooms. ELSAS heating mats are equipped with a double circuit: a main circuit and an emergency circuit, placed on a trellis suitable for concrete.

They apply when installing a negative cold room, freezing room, refrigerating room or industrial cold room.

The heating mat must be regulated by an electronic thermostat of the **ELTE-1** or **ELTH-B390** type. The temperature sensor will be placed in a glove finger, in order to make it interchangeable. The probe will be placed on the same plane and in the axis of the heating conductors.



#### MAIN FEATURES

REFERENCE	LABEL	VOLTAGE	POWER	DIMENSION
ELSAS-360	Heating mat for door step (main and rescue)	230 V	2 × 360 W	0.5 m × 2 m
ELSAS-560	Heating mat for door step (main and rescue)	230 V	2 × 560 W	0.5 m × 3 m
ELSAS-744	Heating mat for door step (main and rescue)	230 V	2 × 744 W	0.5 m × 4 m
ELSAS-925	Heating mat for door step (main and rescue)	230 V	2 × 925 W	0.5 m × 5 m
ELSAS-1083	Heating mat for door step (main and rescue)	230 V	2 × 1 083 W	0.5 m × 6 m
ELSAS-1236	Heating mat for door step (main and rescue)	230 V	2 × 1 236 W	0.5 m × 7 m

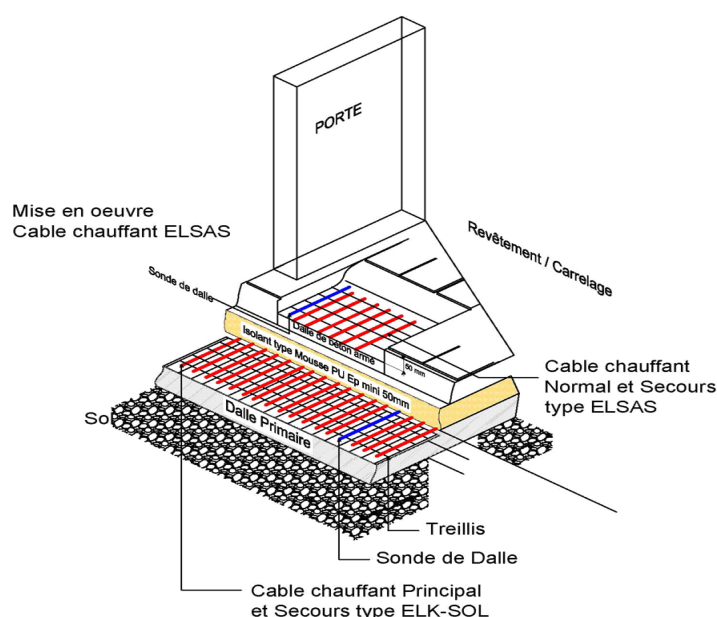
#### TECHNICAL CHARACTERISTICS

Nominal voltage	230 V
Cold lead cable	4 m (1.5 mm <sup>2</sup> )
Tolérance	-5 % / +10 %
Minimum installation temperature	+5 °C
Minimum bending radius	5 × Da
Maximum rated temperature	+90 °C
Hot/cold junction	Waterproof

#### IMPLEMENTATION, INSTALLATION

The implementation of the heating cables is carried out according to the diagram. This is to protect the floors of cold rooms against the formation of frost.

The heating mats are equipped with 2 heating cables: 1 normal and 1 emergency in case of failure of the first.



**Do not power on simultaneously**

## ELSOL - A heating mat for the floor slab of negative cold rooms

### HEATING MAT DOUBLE HEATING CABLES: MAIN AND RESCUE

#### PRODUCT OVERVIEW

The ELSOL family is a range of heating mats fitted with two electric heating cables for the floors of negative cold rooms. They are used to protect the floors of cold rooms against heaving caused by frost.

The heating mat is placed on the ground according to the diagram below to cover the contact surface with the substrate and makes it possible to compensate for heat loss from the ground. The power to be installed is around 20 to 40 W/m<sup>2</sup>.

Given the inaccessibility of the equipment and the cost of the work, we doubled the circuit; the second cable constituting a possible backup. The two cables should never run simultaneously.

The heating mat must be regulated by an electronic thermostat of the ELTRACE ELTE-1 or ELTH-B390 type. The temperature sensor will be placed in a glove finger, in order to make it interchangeable, it will be arranged on the same plane and in the axis of the heating conductors.



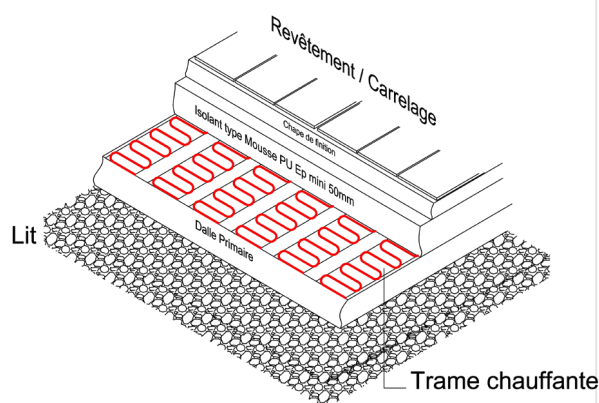
#### MAIN FEATURES

REFERENCE	LABEL	VOLTAGE	DIMENSION	POWER	COLD LENGTH	SURFACE MAX
ELSOL-100	Double circuit mat	230 V	0.3 m × 4.9 m	2 × 100 W	15 m	6 m <sup>2</sup>
ELSOL-250	Double circuit mat	230 V	0.3 m × 11.9 m	2 × 250 W	15 m	16 m <sup>2</sup>
ELSOL-485	Double circuit mat	230 V	0.3 m × 26.5 m	2 × 485 W	20 m	32 m <sup>2</sup>
ELSOL-830	Double circuit mat	400 V	0.3 m × 46.3 m	2 × 830 W	30 m	55 m <sup>2</sup>
ELSOL-1000	Double circuit mat	230 V	0.3 m × 54.4 m	2 × 1 000 W	30 m	66 m <sup>2</sup>
ELSOL-1100	Double circuit mat	400 V	0.3 m × 62.8 m	2 × 1 100 W	30 m	73 m <sup>2</sup>
ELSOL-1700	Double circuit mat	400 V	0.3 m × 96.8 m	2 × 1 700 W	30 m	113 m <sup>2</sup>

#### TECHNICAL CHARACTERISTICS

Nominal voltage	230 V ou 400 V
Cold lead cable	1.5 mm <sup>2</sup>
Tolerance	-5 % / +10 %
Mini installation temperature	+5°C
Minimum bending radius	5 × Da
Hot/cold junction	Waterproof

1 Montage avec Trame chauffante



#### IMPLEMENTATION, INSTALLATION

The implementation of the heating cables is carried out according to the diagram. This is to protect the floors of cold rooms against the formation of frost.

The heating mats are equipped with 2 heating cables: 1 normal and 1 emergency in case of failure of the first.

**Do not power on simultaneously**

## ELK-SOL - Custom underfloor heating

### FLOOR HEATING CABLE FOR COLD ROOM

#### PRODUCT OVERVIEW

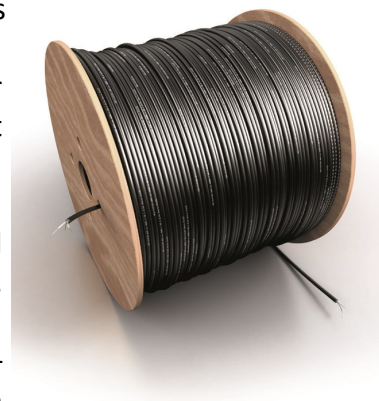
ELK-SOL type heating cables can be used to protect the floors of cold rooms against heaving caused by frost.

This is a cold room floor frost protection electric heater. The cable must cover the contact surface with the substrate and provide a thermal barrier to prevent lifting and other cracks.

The power to be installed is around 20 to 40 W/m<sup>2</sup>.

Given the inaccessibility of the equipment and the cost of the work, we planned to double the circuit; the second cable constituting a possible recourse. Of course, the two cables should never work simultaneously.

The cable must be regulated by an electronic thermostat type ELTE-1 or ELTH-B390. The temperature sensor will be placed in a glove finger, in order to make it interchangeable, it will be arranged on the same plane and in the axis of the heating conductors.



#### MAIN FEATURES

REFERENCE	LABEL	RESISTANCE
ELK-SOL	Cable for negative cold room floor	From 0.02 Ω/m to 12 Ω/m

Nominal voltage	De 12 V à 400 V
Wire	Cupro-nickel alloy strand
Insulation	cross-linked polyethylene
Shielding	Aluminium foil 100 % covered + earth wire
Tolerance	-5 % / +10 %
Protection	Cross linked PVC (0.8 mm)
Outer Diameter	6.5 mm
Minimum installation temperature	+5 °C
Minimum bending radius	5 × Dia
Cold lead cable	On demand

#### IMPLEMENTATION - INSTALLATION

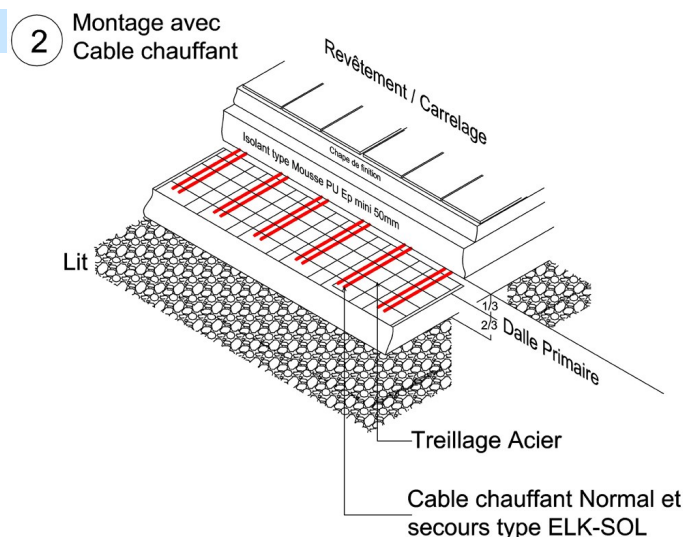
The installation of the heating cables is carried out according to the diagram below.

#### ADVANTAGES

Prevents frost damage for cold rooms or ice rinks. Extremely durable and robust. 100% waterproof.

#### PRODUCT QUALIFICATION

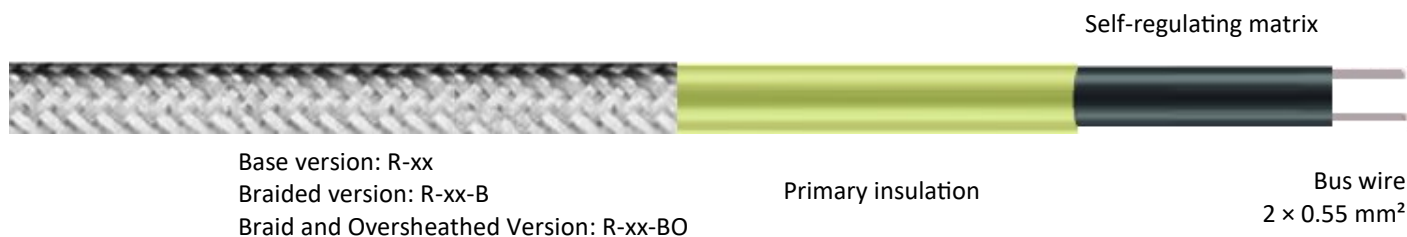
CE, NF C-15 100, IEC 60-800 rev3., Class M2 (1500 N). Impact test 5 × 9 joules.



**Do not overlap the heating cables**

## TRACECO™ - Classe R - Self Regulating Cable

### SELF-REGULATING HEATING CABLE FOR COLD ROOM DOOR DEFROSTING



### PRODUCT OVERVIEW

**TRACECO™-R** self-regulating heating cords ensure the defrosting of door seals in negative cold rooms. They slip into the hinged or sliding doors of cold rooms to prevent ice from preventing the doors from opening. The **TRACECO™-R** replaces all your references and resistors.

Whatever the dimensions of the doors, a single cable is enough for you. **TRACECO™-R** cords are placed on hinged or sliding doors. As “self-regulating” and due to its “parallel” technology, the **TRACECO™-R** heating cable connects directly to the desired length in the junction box. Thus avoiding the preparation of a cold outlet and therefore saving substantial time and cost.

With an oblong section, it allows quick assembly without loss in the corners. **TRACECO™-R** is available in two powers 30 W/m and 40 W/m at 10 °C (9 W/ft and 12 W/ft at 50 °F).

### APPLICATION

Surface type	Metallic or plastic
Chemical resistance	Contact your ELTRACE representative
Area	Safe area (for explosive or corrosive areas, contact your representative)

### PRODUCT ADVANTAGES

- ✓ Thanks to « parallel » heating cable technology allows cutting to the desired length.
- ✓ An oblong self-regulating heating cord suitable for around doors, even in corners.
- ✓ A single reference that replaces all the different resistances and lengths.
- ✓ Energy savings thanks to self-regulation, self-limiting power.
- ✓ No risk of overheating.
- ✓ The Box-type reel storage system allows simple, quick and practical handling.
- ✓ This product is available from stock.

### PRODUCT QUALIFICATION

EAC, RoHS, REACH

## TRACECO™ - Classe R

### TECHNICAL CHARACTERISTICS

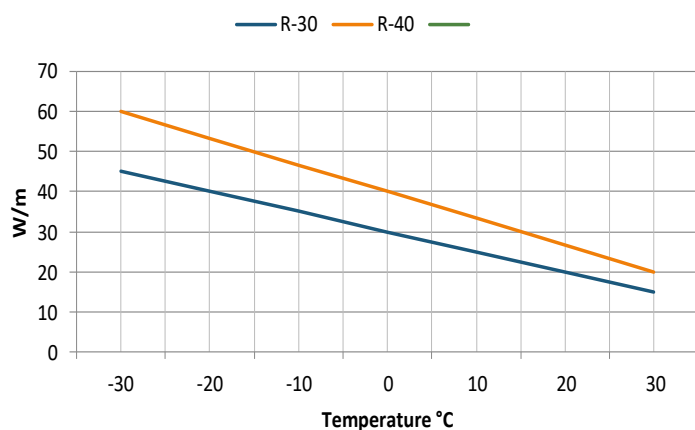
Nominal voltage	230 V (110 V nous consulter)
Maximum exposure temperature energized	65 °C (150 °F)
Maximum exposure temperature un-energized	80 °C (180 °F)
Temperature class	T6
Minimum bending radius	25 mm à 20 °C (70 °F)
Minimum installation temperature	-20 °C (-10 °F)
Weight with alufoil and overjacket (version R-xx-AO)	41 kg/km (0.27 lb pour 10 ft)
Weight with braid and overjacket (version R-xx-BO)	52 kg/km (0.35 lb pour 10 ft)
Matrix dimensions <sup>①</sup>	4.4 mm × 4.1 mm (0.17 in × 0.16 in)
Insulated cable dimensions <sup>①</sup>	5.8 mm × 5.6 mm (0.23 in × 0.22 in)
Braided cable dimension <sup>①</sup>	6.1 mm × 6.0 mm (0.24 in × 0.23 in)

<sup>①</sup>Tolerance: ±0.5 mm (± 0.02 in)

### THERMAL CHARACTERISTICS

Nominal voltage 230 V

REFERENCE	POWER AT 10 °C - (50 °F)	MAX LENGTH
R-30-xx	30 W/m (9 W/ft)	50 m
R-40-xx	40 W/m (12 W/ft)	50 m





## TRACEBAC

### HEATING CABLE WITH THERMOSTAT FOR CONDENSATE TRAY

#### KEEP YOUR AIR CONDITIONING SYSTEM EFFICIENT WITH CONDENSATE TRAY HEATING CABLES

When you have an air conditioning or refrigeration system, you know that condensate management is essential to maintaining its proper functioning. Condensate pans collect the moisture produced by these systems, but they can be prone to problems such as freezing and ice buildup, which can lead to malfunctions and leaks. Using TRACEBAC cables can solve these problems and keep your air conditioning system running smoothly.



#### PREVENTING FREEZING AND ICE BUILDUP EVEN IN THE COLDEST ENVIRONMENTS

They feature built-in heating technology that keeps the bin at a high enough temperature to prevent ice from forming. This helps avoid potential obstructions that could clog the condensate drainage system, leading to overflows and damage. Easy and secure installation: They are flexible and different lengths are available to perfectly fit your condensate tray. These cables have electrical insulation and a protective sheath to ensure safe use.

#### ENERGETIC EFFICIENCY

TRACEBAC cables are equipped with integrated thermostats which automatically regulate the temperature of the tank. This helps minimize energy consumption by activating heating only when necessary (+5°C). This way, you can be sure that your air conditioning system is operating efficiently while keeping energy costs down. Durability and reliability: TRACEBAC cables are manufactured with high quality materials to ensure their durability and reliability. They are designed to withstand harsh environmental conditions and provide optimal performance for extended periods of time. You can therefore count on these cables to ensure continuous protection of your condensate pan, whatever the conditions.

REFERENCE	POWER	LENGTH
TRACEBAC-2	60 W	2 m heating + 1 m cold electrical connection
TRACEBAC-4	120 W	4 m heating + 2 m cold electrical connection
TRACEBAC-5	150 W	5 m heating + 2 m cold electrical connection
TRACEBAC-8	240 W	8 m heating + 2 m cold electrical connection

#### NOMINAL VALUES

Supply voltage: 230 V

Power tolerances: +/-2.5 W

Maximum temperature (energized): +150°C

Minimum temperature : -40°C

Minimum installation temperature: -35°C

Minimum bending radius: 5 x Ad

Cold lead

Dimensions: 5.5 mm ± 0.2 mm

Cable Insulation: silicone

Oversheath insulation : silicone

Protection : IPx7

Declaration : CE ; RoHS

## DRAINFREE - Silicone heating cord

### SINGLE OUTPUT RESISTANCE HEATER

#### FREEZE PROTECTION OF COLD ROOM DRAIN PIPES, REFRIGERATED DISPLAY CASES.

The heating cables of the DRAINFREE family or more generally of the ELR-S range (see next page), are designed for applications in the field of refrigeration and air conditioning.

The integrated cold junctions make them perfectly waterproof. They are checked and finished at the factory. Flexible and functional due to their technology and thanks to the specific characteristics of the materials that compose them.

The silicone provides high dielectric strength and allows the heating cable to operate from -60°C to +200°C.

They should be energized only during defrost cycles. In the case of plastic pipes installed in a cold room at low negative temperature, we advise you to use self-regulating heating tapes of the TRACECO™ T-20 or T-30 type.



#### MAIN FEATURES

REFERENCE	DESIGNATION	POWER
DrainFree-1	Silicone heating cable, 40 W/m, length 1 m, cold lead 1 × 1 m	40 W / 230 V
DrainFree-2	Silicone heating cable, 40 W/m, length 2 m, cold lead 1 × 1 m	80 W / 230 V
DrainFree-3	Silicone heating cable, 40 W/m, length 3 m, cold lead 1 × 1 m	120 W / 230 V
DrainFree-4	Silicone heating cable, 40 W/m, length 4 m, cold lead 1 × 1 m	160 W / 230 V
DrainFree-5	Silicone heating cable, 40 W/m, length 5 m, cold lead 1 × 1 m	200 W / 230 V
DrainFree-6	Silicone heating cable, 40 W/m, length 6 m, cold lead 1 × 1 m	240 W / 230 V

#### TECHNICAL CHARACTERISTICS

Nominal Voltage	230 V (from 1.5 V to 400 V)
Power	40 W/m (from 5 W/m to 80 W/m)
Dimension	On demand
Operating temperature	From -60 °C to +200 °C
Tolerance	-5 % / +10 %
Protection	Cross linked PVC (0.8 mm)
Diameter	6.5 mm
Minimum installation temperature	+5 °C
Minimum bending radius	5 × Dia
Cold lead cable	On demand

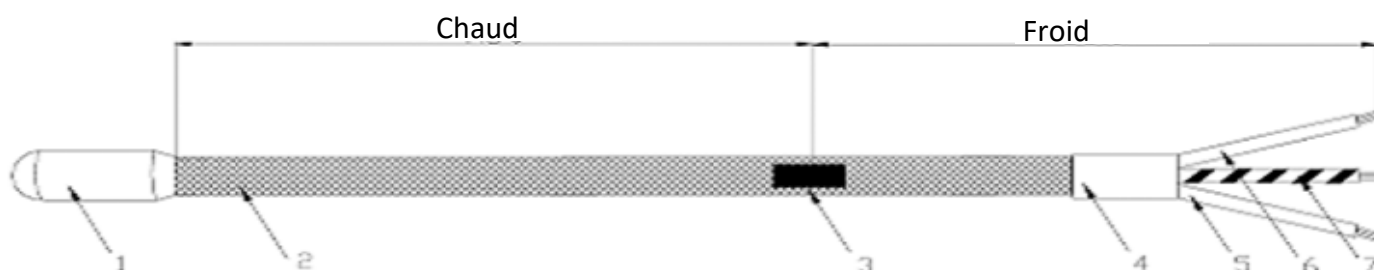
#### ON DEMAND

You have the possibility to choose the characteristics such as the heating lengths, the lengths of the cold outputs, the power and the dimensions within the admissible technical limits. You can also choose your heating cords in standard or braided version.

## DRAINFREE - Silicone heating cord

### TECHNICAL DESCRIPTION

The cords can be covered with a multi-strand metal braid for better mechanical protection, thus ensuring the grounding contact.



1. Hermetically sealed silicone rubber vulcanization.
2. Silicone rubber insulation with multi-strand metal braid cover (optional).
3. Colored point that indicates the limit of the hot-cold section.
4. Marking.
5. Silicone rubber insulated resistive heating cable.
6. Silicone rubber insulated return electrical cable.
7. Yellow/green PVC cable for earth connection (optional).

### ELR-S ON-DEMAND HEATING CORDS

You have the possibility to choose the characteristics such as the heating lengths, the lengths of the cold outputs, the power and the dimensions within the admissible technical limits. You can also choose your heating cords in standard or braided version.

REFERENCE	DESIGNATION	POWER
ELR-S-W/lg/SF/V	Silicone heating cable, W/m, length m, Cold lead m, voltage	Watt

ELR-S	<b>ELtrace Resistance - Silicone</b>
Power (W)	10 W/m to 50 W/m - other power on demand
Dimension (Lg)	Heating length (m)
Cold lead (SF)	Cold lead (m)
Voltage (V)	1.5 V to 400 V
Protective braid (-B)	Braid version
Overjacket (-BO)	Braid and overjacket version

### REFERENCE REGULATIONS AND CERTIFICATION

- √ Design, manufacture and testing according to harmonized standards EN 60335.
- √ Compliance with DIRECTIVE 2006/95/EEC.
- √ Declaration of conformity for the entire range.

## ELBH - Heating belt

### HEATING BELT FOR GAS DRUMS AND CYLINDERS

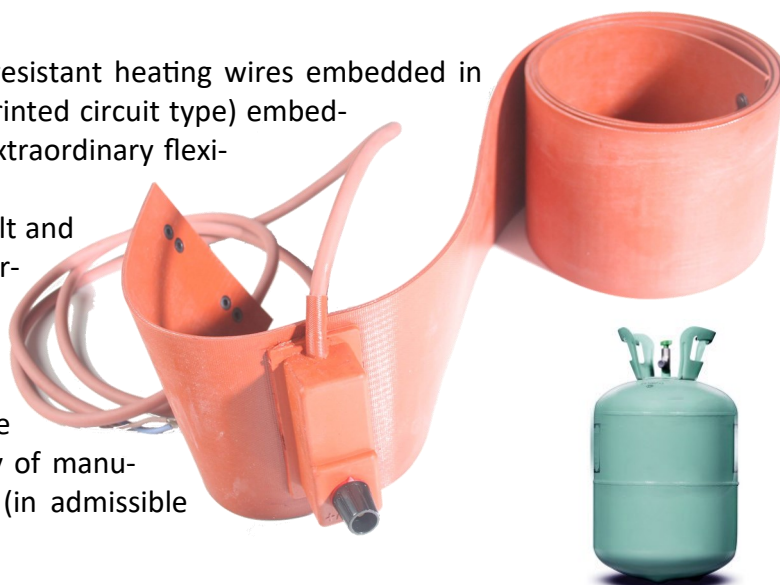
The silicone heating belts make it possible to accelerate the discharge of refrigerant from the bottles of refrigerants and to completely empty the bottle while limiting losses in complete safety.

#### HEATING BELT OVERVIEW

Silicone heating belts are made either from resistant heating wires embedded in vulcanized silicone or with resistive circuits (printed circuit type) embedded in silicone. The advantage is to provide extraordinary flexibility of use.

A thermostat is incorporated in the heating belt and thus makes it possible to avoid any risk of overheating and increased safety.

Its quick spring fixing system allows installation on drums of non-standard dimensions. The dimensions of our heating belts cover the majority of drums but we have the possibility of manufacturing all dimensions and powers desired (in admissible technical configurations).



#### MAIN FEATURES

REFERENCE	CAPACITY	DIMENSIONS <sup>①</sup>	POWER
ELBH-400	20 litres	850 mm × 96 mm	400 W
ELBH-800	55 litres	1 100 mm × 100 mm	800 W
ELBH-1000	200 litres	1 700 mm × 100 mm	1 000 W
ELBH-1500	200 litres	1 700 mm × 100 mm	1 500 W

<sup>①</sup>Tolerance ±5 % (power and/or dimensions)

#### CUSTOM WAISTBAND AND HEATING PANELS

Other lengths, widths and powers can be manufactured on request, respecting the admissible technical constraints.

Contact us for more information.

## ELTH-B390 - Thermostat

### ONE-STAGE ELECTRONIC ON/OFF THERMOSTAT FOR TEMPERATURE DUAL DIGITAL DISPLAY, 2 SETPOINTS, 1 CONTROL OUTPUT + 1 ALARM OUTPUT

#### PRODUCT OVERVIEW

The ELTHB-390 modular thermostat adapts to all cases where temperature control is necessary: atmosphere, air ducts, liquids, solids thanks to the various interchangeable probes available.

ELTH-B390 is a dual set point controller. It can be used for the management of neutral zones. They are equipped with an input for PT100 type thermostatic probes, current 4...20 mA.

The sensor value is displayed on a three-digit display. The controllers are available in standard 4 DIN format and 230 Vac power supply.



#### MAIN FEATURES

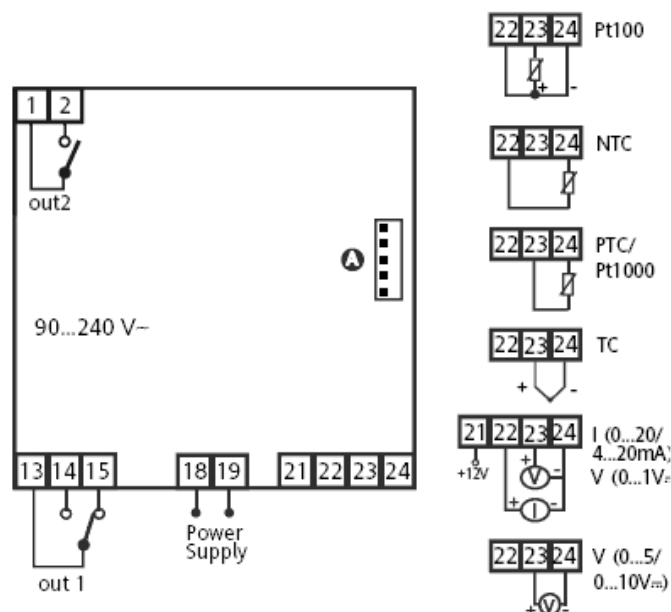
Plastic module housing	4 DIN
Front dimensions	70 mm × 85 mm
Depth	61 mm
Assembly	Rail DIN
Connection	Screw terminal block 2,5 mm <sup>2</sup>
Operating temperature	-5 °C to 55 °C
Storage temperature	-20 °C to 40 °C
Display	4 digits
Precision	Better than 0.5 % of full scale + 1 digit
Resolution	1°C / 0,1°C
Voltage	90 V to 240 Vca ± 10 % ; 50/60 Hz

#### DESCRIPTION OF THE ELECTRICAL DIAGRAM:

- √ 1-2 Relays N.F
- √ 13-15 Relays N.F
- √ 13-14 Relays N.O
- √ 18-19 Power supply
- √ 21-22-23-24 sensor entry
- √ A Connection TTL for Copy Carte

#### PRODUCT QUALIFICATIONS

CE declaration



## ELTH-B390-CTx - Waterproof electrical box

### ELECTRICAL BOX WITH BUILT-IN THERMOSTAT, CONTACTOR AND CIRCUIT BREAKER

#### PRODUCT OVERVIEW

The range of CT Technical Boxes by ELTRACE type CT1 in 230 V or CT3 in 400 V are fully equipped to be totally and easily operational. CT electrical panels are essential elements for the proper functioning of our heating systems.

#### CHARACTERISTICS OF THE BOX WITH THERMOSTAT

Self-extinguishing: resistance to incandescent wire 750°C in accordance with ERP regulations Waterproof boxes - IP 65 - IK 09 - Class II - UV resistance. Impact reinforced polystyrene material

#### STANDARDS

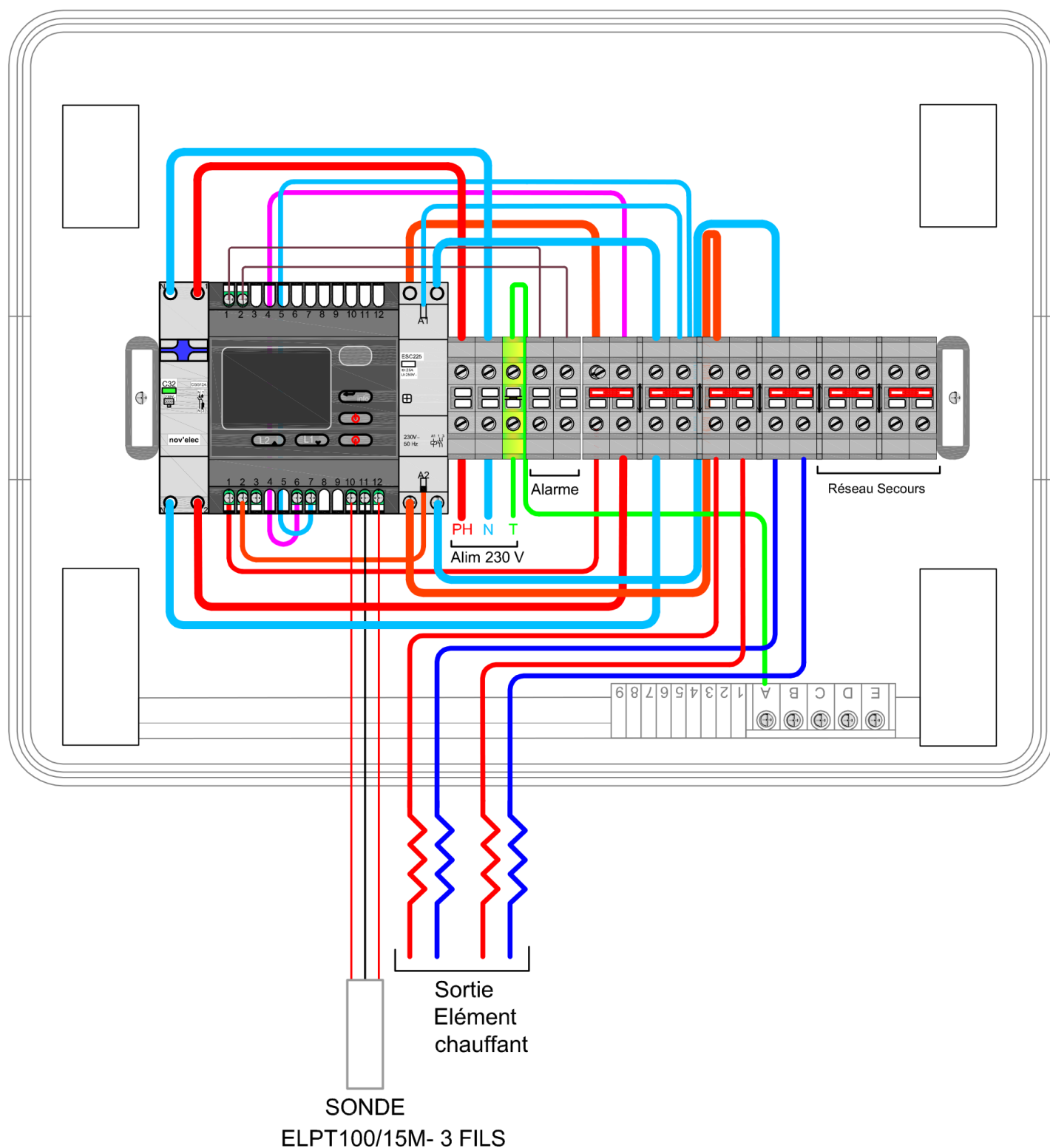
EN NF C15-100, EN 60730-2,-9, IEC 62 208, EN 60695-2-11, ISO 4892-2, IEC 62 208 & EC 61 439-3



DESIGNATION	FAMILY
Electronic thermostat with display + 1 output + 1 alarm	ELTH-B-390
Circuit breaker C32A 1 P+N	CIRCUIT BREAKER
Modular contactor 2 × 25 A	CONTACTOR
Panel 335 × 285 × 160 mm	PANEL
Terminal 4 mm <sup>2</sup>	TERMINAL
Earth terminal G/Y	TERMINAL
Coupling bar	TERMINAL
Fixing paste	STOP
Wiring 1.5 mm <sup>2</sup> - Blue	WIRING
Wiring 2.5 mm <sup>2</sup> - Blue	WIRING
Wiring 1.5 mm <sup>2</sup> - Red	WIRING
Wiring 2.5 mm <sup>2</sup> - Red	WIRING
Wiring 1.5 mm <sup>2</sup> - Yellow/green	WIRING

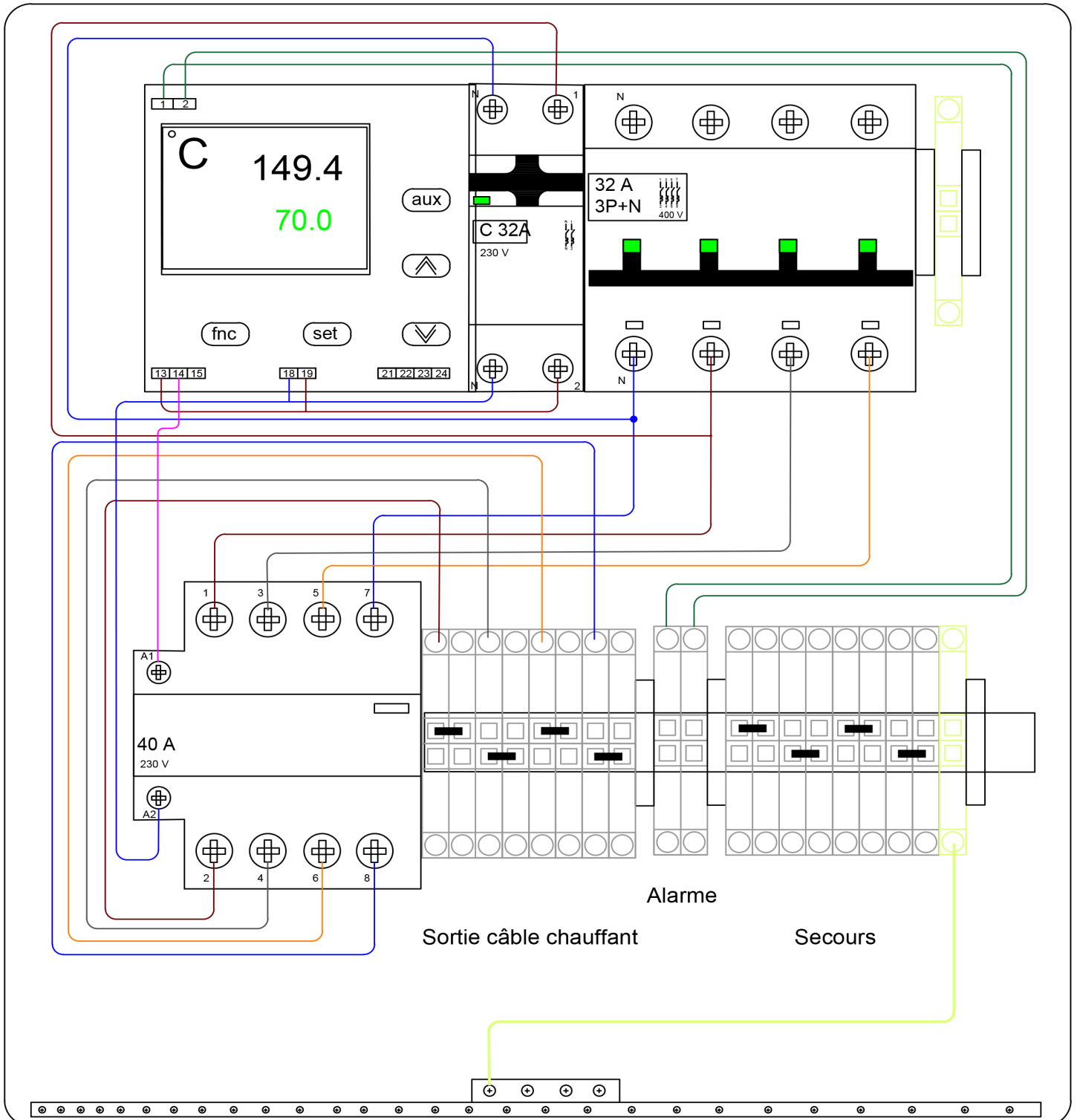
## ELTH-B390-CT1 - Waterproof electrical panel 230 V

230 V ELECTRICAL PANEL PRE-EQUIPPED WITH AN INTEGRATED THERMOSTAT, CONTACTOR AND CIRCUIT BREAKER



## ELTH-B390-CT3 - Waterproof electrical panel 400 V

400 V ELECTRICAL PANEL PRE-EQUIPPED WITH AN INTEGRATED THERMOSTAT, CONTACTOR AND CIRCUIT BREAKER





## ELCAPE - Open Door Alarm & Locked People

### ELECTRICAL BOX FOR LOCKED PEOPLE IN COLD ROOM AND OPEN DOOR ALARM

#### PRODUCT OVERVIEW

The ELCAPE system is made up of two parts: the emergency button with continuously lit emergency button, to be installed inside the cold room and the audible and visual alarm box which is placed outside the cold room. bedroom. In the event of a power outage, the unit is powered by the sealed lead battery. Its main function is to indicate the presence of a confined person in accordance with the NFE 35400 standard.



#### TECHNICAL SPECIFICATIONS OF THE ELCAPE BOX

- ✓ Power supply: 230 Vac 50/60 Hz  $\pm 20\%$
- ✓ Management of integrated micro-cuts
- ✓ Dimensions (mm) : 213  $\times$  318  $\times$  102 (without buzzer)
- ✓ Relay output Type : Relais 1 NO + 1 NF
- ✓ Switching current: 8 A/275 Vac ( $\cos \phi = 1$ ), 5A / 275 Vac ( $\cos \phi = 0,6$ )
- ✓ Contact / coil insulation: 4000 Vac
- ✓ 3 digital input TOR
- ✓ Protection : EMI filtering
- ✓ BUZZER output voltage: 12 V
- ✓ Power : 3 W
- ✓ Operating temperature:  $-20\text{ }^{\circ}\text{C}$  to  $+60\text{ }^{\circ}\text{C}$
- ✓ Storage temperature:  $-40\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$
- ✓ Humidity : 0 to 95 % RH non-condensing
- ✓ IP degree : IP 44
- ✓ Standards: Complies with standard 35400, 89/336/CEE modified by 99/5/CEE, 73/23/CEE modified by 93/68/CEE, Components UL94V0

#### TECHNICAL SPECIFICATIONS OF THE PUNCH

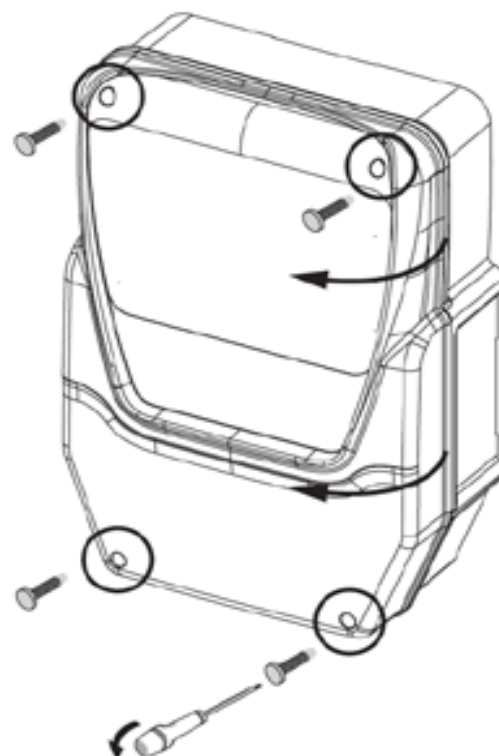
- ✓ Voltage: Via CAPE +
- ✓ Contact: NF (Normally closed)
- ✓ Dimension (mm): 74  $\times$  68  $\times$  62
- ✓ Ambient temperature for storage:  $-40\text{ }^{\circ}\text{C}$  to  $+70\text{ }^{\circ}\text{C}$
- ✓ Operating temperature:  $-40\text{ }^{\circ}\text{C}$  to  $70\text{ }^{\circ}\text{C}$
- ✓ IP degree of protection: IP66

#### SETTING THE LOCKED PERSON ALARM FUNCTION

The type of contact (NO or NC) can be configured via the AU dip-switch.

#### SETTING THE DOOR OPEN ALARM FUNCTION

The type of door contact (NO or NC) can be configured via the PRT dip-switch. The time delay is adjusted via dipswitches 2, 4, 8, 16, 32.



## Our know-how, our vocation, our profession

### HEATING CABLE EXPERTS



Welcome to ELTRACE, a family business with more than 30 years of expertise in the field of heating cables. Our know-how extends to heating ribbons, self-regulating heating cables, heating cords and heating resistors. Our commitment is to guide you towards the optimal solution for frost protection and temperature maintenance.

#### OUR MISSION

Protect you and your customers from frost damage and maintain temperatures on various surfaces, whatever the electrical tracing application. This includes pipes, valves, containers and other industrial processes, as well as the protection of vineyards, snow removal from roofs, parking lot access ramps, and even underfloor heating such as the lawns of football or football stadiums, rugby, golf greens or tennis courts.

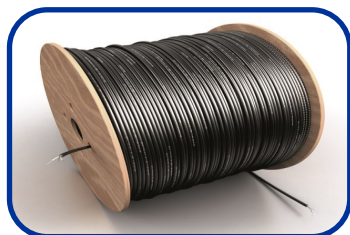
#### OUR EXPERTISE

Lies entirely in heating cables and frost protection and temperature maintenance systems. To achieve this, we have deployed all necessary means to support you in your approach.

#### OUR MEANS

- √ A fully dedicated design office to precisely identify your needs,
- √ A field supervision team to support you in your projects,
- √ A responsive sales service that quickly answers all your questions and guarantees the best price,
- √ A "Made in France" manufacturing plant dedicated to the production of self-regulating heating cables,
- √ A proactive logistics team, with a substantial stock.

## ELTRACE OFFER



### Our heating cables

We provide you with a wide range of heating products with our self-regulating heating cables, our constant power heating cords, resistive heating wires, heating cords, as well as electric heating resistors.



### Our heated hoses

We design heating hoses to ensure the transport of liquid or gaseous fluids without any loss of temperature. Gas analysis, portable measurement systems for industrial applications such as chemical, petrochemical, food industry, automotive industry, etc ...



### Our heating panels

Particularly flexible and easy to install, they adapt to all shapes and sizes. They consist of a heating element fixed to a frame between two vulcanized silicone panels. They are resistant to bad weather, to multiple chemicals such as fats, oils, acids (pH4) etc ...



### Our heated jackets

Adaptable to all forms of support, extremely flexible and easy to install, our jackets allow excellent contact with the surface to be heated. The main applications are: fittings, valves, flowmeters, meters, ice levels, manometers, distribution clarinets, filters, flanges, fittings, etc...



### Our thermostats and controllers

We offer thermostats for the residential, building and industrial market with a very wide temperature range in healthy or explosive areas. Frost protection, snow detectors, monitoring systems, controls and electrical cabinets adapted to your needs.



### Our connection kits and junction

Electrical connections and junctions are the most sensitive points of a heating cable installation. We offer you a comprehensive range of connectors. The ultra fast and secure **DOMOCLICK™** system, the **TRASSACLIP** system for industry and high-risk areas, we cover all possible configurations (power supply, X or T connection, termination, etc.).



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**THE MASTERED DEGREE**