

Head office Tel: +33 (0)1 64 62 04 40 12. rue des Frères LUMIÈRE Fax : +33 (0)1 64 62 00 54 F-77290 Mitry-Mory Email : info@eltrace.com France Web : www.eltrace.com

Type: Technical Datasheet Document: FT-SRCable

Self-Regulating Heating Cable ESR-H-BOT

Date: 10/01/2022 Version: En-Rev.2.082

## ESR™ H-BOT

# SELE-REGULATING HEATING CABLE **HIGH TEMPERATURE**

| Fluoropolymer outer jacket               | Braid                          |                  | Semi-conductrive matrix |           |
|--|--------------------------------|------------------|-------------------------|-----------|
|  | \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$ |                  |                         |           |
| Naked type: H-xx<br>Braided type: H-xx-B |                                | First insulation |                         | Bus wire: |

## HEATING CABLE OVERVIEW

Braid and outer jacket: H-xx-BOT

**ESR™-H-BOT** self-regulating heating cables are designed for high temperature applications for processes up to +200 °C (+392 °F). They are designed for industrial applications.

Ils s'adaptent à une large gamme de services industriels.

Approved for hazardous, explosive, corrosive and healthy areas, the fluoropolymer outer sheath provides maximum protection in the harshest environments. **ESR™-H-BOT** is resistant to organic chemicals and corrosive in the oil, gas or petrochemical industries.

#### **APPLICATION**

| Surface type        | Metallic   |
|---------------------|--|
| Chimical resistance | Consult your ELTRACE representative              |
| Areas               | Normal, corrosive or explosive area (contact us) |

#### ADVANTAGES

- $\sqrt{}$ A highly chemical resistant fluoropolymer outer sheath.
- $\sqrt{}$ The so-called "parallel" heating cable technology allows you to cut to the desired length.
- $\sqrt{}$ A self-regulating heating cable suitable for hazardous and corrosive atmospheres.
- $\sqrt{}$ Saving energy through self-regulation.
- $\sqrt{}$ No risk of overheating.
- $\sqrt{}$ The Box type reel storage system allows simple, fast and practical handling.
- $\sqrt{}$ Different powers available.
- $\sqrt{}$ A product available in stock.



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#### QUALIFICATION PRODUIT

ATEX, EAC, UE-Declaration (CE), IP66/68

## **CARACTÉRISTIQUES TECHNIQUES**

| Supply voltage  |
|---|
| Maximum exposure temperature - power on   |
| Maximum exposure temperature - power off  |
| Temperature class (T-RATING)  |
| Minimum bend radius   |
| Minimum installation temperature  |
| Weight (braided version T-xx-BOT)   |
| Outer jacket dimensions (braided version H-xx-BOT) <sup>①</sup> $^{(1)}$ Tolerance: ±0.5 mm (± 0.02 in) |
|   |

230 V (110 V on demand) 120 °C (248 °F) 200 °C (392 °F) T3 (T2 with the 60 W/m) 25 mm à 20 °C (70 °F) -45 °C (-49 °F) 120 kg/km (0.8 lb per 10 ft.) 10.2 mm × 4.8 mm (0.41 ln × 0.21 ln)

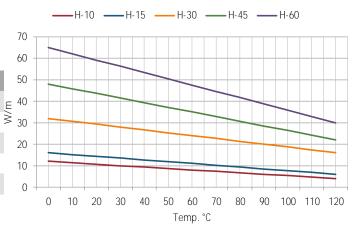
## **THERMAL CHARACTERISTICS**

Nominal power supplied at 230 V on insulated metal pipe

| REFERENCE | POWER @ 10 °C - (50 °F) |
|-----------|-------------------------|
| H-10-BOT  | 10 W/m (3 W/ft.)        |
| H-15-BOT  | 15 W/m (5 W/ft.)        |
| H-30-BOT  | 30 W/m (9 W/ft.)        |
| H-45-BOT  | 45 W/m (14 W/ft.)       |
| H-60-BOT  | 60 W/m (18 W/ft.)       |

#### MAXIMUM HEATING CIRCUIT LENGTH

| REFERENCE | MAXIMUM CIRCUIT LENGTH |
|-----------|------------------------|
| H-10-BOT  | 200 m                  |
| H-15-BOT  | 190 m                  |
| H-30-BOT  | 115 m                  |
| H-45-BOT  | 85 m                   |
| H-60-BOT  | 65 m                   |





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#### MAXIMUM CIRCUIT LENGTHS BASED ON CIRCUIT BREAKER SIZE

| DESIGNATION | STARTING TEMPERATURE | MAX. CIRCUIT LENGTHS (m) |      |      |
|-------------|----------------------|--------------------------|------|------|
| DESIGNATION | STARTING TEMPERATURE | 16 A                     | 20 A | 25 A |
| H-10-BOT    | -20                  | 175                      | 205  | 205  |
|             | 0                    | 198                      | 205  | 205  |
|             | 10                   | 205                      | 205  | 205  |
|             | -20                  | 120                      | 152  | 190  |
| H-15-BOT    | 0                    | 154                      | 181  | 190  |
|             | 10                   | 165                      | 190  | 190  |
| H-30-BOT    | -20                  | 70                       | 92   | 115  |
|             | 0                    | 81                       | 109  | 115  |
|             | 10                   | 85                       | 114  | 115  |
|             | -20                  | 50                       | 66   | 85   |
| H-45-BOT    | 0                    | 65                       | 80   | 85   |
|             | 10                   | 70                       | 85   | 85   |
| H-60-BOT    | -20                  | 38                       | 52   | 65   |
|             | 0                    | 47                       | 62   | 65   |
|             | 10                   | 50                       | 65   | 65   |

Circuit length with C curve circuit breaker. The protection of each circuit must comply with NF C 15-100. Personal protection is ensured by a residual current device of 30 mA maximum in increments of 7.5 kW maximum, if the heating elements are supplied at 230 volts.

#### ELECTRIC HEAT TRACING ACCESSORIES

| REFERENCE        | BUILDING                       | INDUSTRY  |
|------------------|--------------------------------|---|
| Connection       | ELQC, ELKSR, ELKSR-1           | TRASSACLIP<br>ELKSR-1-e                             |
| Junction box     | ELBE-6, ELBE-8, ELBE-10        | ELBA-5-e, ELBA-1-e-v, ELBA-4-e-v                    |
| Support leg      | ELSP-x, ELSP-P3                | ELSP-2, ELSP-3, ELSP-4, ELSP-5, ELSP-PU,<br>ELSP-P3 |
| Thermostat       | ELTE-x,                        | ELTH-THERM-ATx                                      |
| Fixing tape      | ELAA (aluminium adhesive tape) | ELAA (aluminium adhesive tape)                      |
| Insulation entry | ELSC, ELSC-E, ELSC-B           | ELSC-E  |
| Warning signs    | ELET                           | ELET  |

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#### INSTALLATION OF HEATING CABLES

**ELTRACE** self-regulating cables must be installed in accordance with the standards in force on the day of installation (specifications for common technical implementation of CSTB, NF C 15-100, VDE, etc.) for the points where they apply, as well than the recommendations for use.

#### SELF-REGULATION PRINCIPLE

The colder it is, the more the polymer contracts and thus facilitates the flow of current and the more the cable heats up. Conversely, the hotter it is, the more the polymer expands and prevents the passage of current, the less the cable heats up.

Thanks to its so-called "parallel" technology, the heating cable can be cut to the desired length directly on site.

For more information, contact your **ELTRACE** distributor or representative now.

#### CONDITIONING

Standard lengths on reel: 500 m (+/- 5%). Other lengths are available, please contact your ELTRACE representative.

#### MARKING

All **ELTRACE** self-regulating cables are marked [YYMMDD] (year, month, day) to ensure the traceability of our productions.

Personalized markings can be made in accordance with the regulations.