

At a Glance

Applications



Freeze prevention



Temperature maintenance



Pipelines

- › Chemistry and Petrochemistry
- › Maritime and offshore
- › Food Processing Industry
- › Water and sanitation utilities

Benefits

- › Three nominal outputs
- › UV-resistant
- › Moisture proof
- › Small dimensions

Designs

- AO** Aluminium foil, TPE-O outer jacket
- BO** Protective braid, TPE-O outer jacket

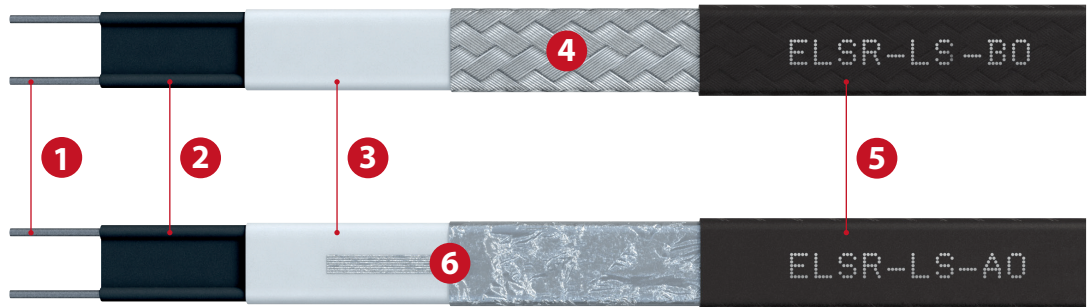
Approvals



- › Trace Heater classification
 - II 2G Ex 60079-30-1 IIC Gb
 - II 2D Ex 60079-30-1 IIIC Db
- › System classification
 - II 2G Ex 60079-30-1 eb IIC T6 Gb
 - II 2D Ex 60079-30-1 tb IIIC T85C Db
- › Certification
 - EPS 19 ATEX 1 215 U
 - EPS 21 ATEX 1070 X
 - CML 21 UKEX 3812 U
 - CML 21 UKEX 3814 X
- › Temperature class T6

ELSR-LS

up to 80 °C



| | |
|--|--|
| 1 Bus wire | Nickel plated copper, 1.23 mm ² |
| 2 Self-regulating heating element | |
| 3 Insulation | |
| 4 Protection | Protective braid (Cu, tin plated) |
| 5 Outer jacket | TPE-O |
| 6 Protective conductor connection | see 4 or Cu, tin plated with aluminium foil |

Checklist ELSR-LS

Power Connection & End Termination

| | | |
|-----------------|--|---------|
| ELVB-SREx-25 | Power connection, glued, Gland M25 x 1,5, PE, Ex e | 0X81PA1 |
| ELVB-SRAL-Ex-20 | Power connection, glued, Gland M20, brass | 0X81PLD |
| EL-ECL-ex | Silicone termination cap black, glued, transparent with ex marking | 0X81EL1 |
| Ex-Con-SR | Ex connection sleeve Ø 36 x 210 mm 4J | 0X81125 |
| ELVB-SRA-25 | Power connection, glued, Gland M25 x 1,5, PE | 091A010 |
| ELVB-SRV-N-L-W | Connection set, shrink-fit | 0911116 |
| EL-ECL | Silicone termination cap, glued, transparent | 09112L1 |
| El-Clc P | El-Clc P Fast connector with 2.5m cold lead H05 SS-F 3 G 1,5 | 09ClcP |
| El-Clc S | El-Clc S Fast connector T-splice | 09ClcS |

Junction Boxes

| | | |
|--------------|--|---------|
| ELAK-Ex-2.00 | 110 x 75 x 57 mm, polyester, IP66, 1 Trace heater, 1 Power cable | 0X85200 |
| ELAK-Ex-4.01 | 122 x 120 x 90 mm, polyester, IP66, 1 - 3 Trace heaters, 1 Power cable | 0X85401 |
| ELAK-2 | 104 x 104 x 70 mm, polycarbonate, breakouts 7x M25, IP 66 | 0920030 |
| ELAK-5 | 122 x 120 x 90 mm, polyester, 3 breakouts M25, IP 66 | 0920013 |
| ELAK-5.1 | 130 x 130 x 75 mm, polycarbonate, breakouts 9x M20/M25, IP 66 | 0920002 |
| ELAK-RS-T | 150 x 125 mm, twin Pt100, 3 heaters incl. mounting stand, IP 65 | 0920059 |



Technical Information

| | |
|---|---------------------|
| Max. continuous exposure temperature (power on) | 65 °C |
| Max. intermittent exposure temperature (de-energized) | 80 °C (max. 1000 h) |
| Nominal voltage* | 230 V |
| Min. Bending radius | 25 mm |
| Min. Installation temperature | - 60 °C |

* Further power inputs on request

Heating circuit length

| Switch on temperature [°C] | Nominal fuse rating [A] | Heating circuit length* ¹ [m] | | |
|-------------------------------|----------------------------|---|--------------|--------------|
| | | ELSR-LS-10-2 | ELSR-LS-15-2 | ELSR-LS-25-2 |
| 10 | 10 | 152.0 | 103.0 | 64.0 |
| | 16 | 196.0 | 160.5 | 103.0 |
| | 20 | 196.0 | 160.5 | 126.0 |
| | 25 | 196.0 | 160.5 | 126.0 |
| 0 | 10 | 141.0 | 84.0 | 54.0 |
| | 16 | 188.5 | 134.0 | 87.0 |
| | 20 | 188.5 | 145.0 | 108.0 |
| | 25 | 188.5 | 145.0 | 116.0 |
| -10 | 10 | 119.0 | 71.0 | 47.0 |
| | 16 | 173.5 | 114.0 | 75.0 |
| | 20 | 173.5 | 133.0 | 94.0 |
| | 25 | 173.5 | 133.0 | 107.5 |
| -20 | 10 | 103.0 | 62.0 | 37.5 |
| | 16 | 161.0 | 99.0 | 60.0 |
| | 20 | 161.0 | 124.0 | 75.0 |
| | 25 | 161.0 | 124.0 | 94.0 |

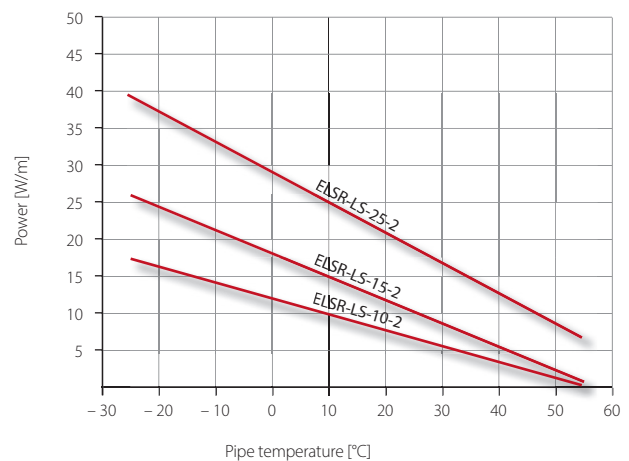
*¹ Heating circuit lengths on the following conditions

- 230 V nominal voltage
- Delayed action circuit breakers (C-characteristic) with 80 % max. load
- Maximum 10 % line voltage drop on heating cable bus wire
- Power connection to one heater end
- In certain installation situations, the heating circuit length may vary. Please contact our engineers.

Power output

ELSR-LS-xx-2-xx Power

(on insulated metallic pipes in accordance with EN 62395-1)



Ordering Information

| Type | Nominal output [at 10°C] | WxH approx. [mm] | Weight approx. [g/m] | Article - No. |
|-----------------|--------------------------|------------------|----------------------|---------------|
| ELSR-LS-10-2-BO | 10 W/m | 11,0 x 5,6 | 98 | B0223102 |
| ELSR-LS-10-2-AO | 10 W/m | 10,3 x 5,3 | 78 | B0223104 |
| ELSR-LS-15-2-BO | 15 W/m | 11,0 x 5,6 | 98 | B0223152 |
| ELSR-LS-15-2-AO | 15 W/m | 10,3 x 5,3 | 78 | B0223154 |
| ELSR-LS-25-2-BO | 25 W/m | 11,0 x 5,6 | 98 | B0223252 |
| ELSR-LS-25-2-AO | 25 W/m | 10,3 x 5,3 | 78 | B0223254 |