

## At a Glance

### Applications



Freeze prevention



Silos, vessels, tanks

› Cryogenic Storage Tanks

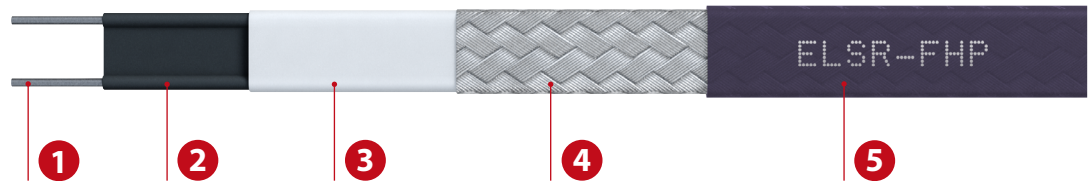
### Benefits

- › Highly robust
- › Suitable for harsh installed environment
- › Flexible mounting
- › Waterproof

### Approvals



## ELSR-FHP up to 110 °C



|   |                                 |                                            |
|---|---------------------------------|--------------------------------------------|
| 1 | Bus wire                        | Nickel plated copper, 2.77 mm <sup>2</sup> |
| 2 | Self-regulating heating element |                                            |
| 3 | Insulation                      |                                            |
| 4 | Protection                      | Protective braid (Cu, tin plated)          |
| 5 | Outer jacket                    | Fluoropolymer                              |

## Checklist ELSR-FHP

### Power Connection & End Termination

|             |                                              |         |
|-------------|----------------------------------------------|---------|
| EL-ECN      | End termination kit for ELSR-FHP             | 09112N1 |
| ELVB-SRA-25 | Power connection, glued, Gland M25 x 1,5, PE | 091A010 |

### Junction Boxes

|          |                                                               |         |
|----------|---------------------------------------------------------------|---------|
| 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 |

## Technical Information

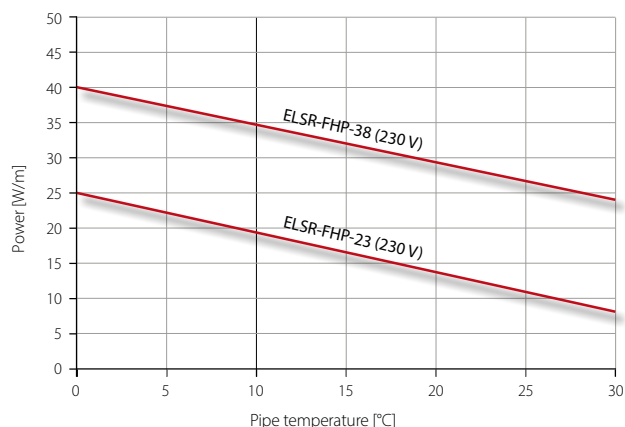
|                                                                   |                      |                     |
|-------------------------------------------------------------------|----------------------|---------------------|
| Max. continuous exposure temperature (power on)                   | 80 °C (ELSR-FHP-38)  | 65 °C (ELSR-FHP-23) |
| Max. intermittent exposure temperature (de-energized max. 1000 h) | 110 °C (ELSR-FHP-38) | 80 °C (ELSR-FHP-23) |
| Nominal voltage*                                                  | 230 V                |                     |
| Min. Bending radius                                               | 50 mm                |                     |
| Min. Installation temperature                                     | – 45 °C              |                     |

### Heating circuit length

| Switch on temperature<br>[°C] | Nominal fuse rating<br>[A] | Heating circuit length*<br>[m] |             |
|-------------------------------|----------------------------|--------------------------------|-------------|
|                               |                            | ELSR-FHP-23                    | ELSR-FHP-38 |
| -5                            | 10                         | 30.0                           | 23.0        |
|                               | 16                         | 48.0                           | 36.0        |
|                               | 20                         | 60.0                           | 45.0        |
|                               | 25                         | 75.0                           | 72.0        |
|                               | 32                         | 97.0                           | 91.0        |
|                               | 40                         | 121.0                          | 21.0        |
| -15                           | 10                         | 23.0                           | 34.0        |
|                               | 16                         | 37.0                           | 43.0        |
|                               | 20                         | 46.0                           | 54.0        |
|                               | 25                         | 57.0                           | 68.0        |
|                               | 32                         | 74.0                           | 85.0        |
|                               | 40                         | 92.0                           | 85.0        |

### Power output

ELSR-FHP-xx-2-xx Power  
(on insulated metallic pipes in accordance with EN 62395-1)



\*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.

## Ordering Information

| Type        | Nominal output<br>[at 10°C] | WxH approx.<br>[mm] | Weight approx.<br>[g/m] | Article - No. |
|-------------|-----------------------------|---------------------|-------------------------|---------------|
| ELSR-FHP-23 | 23 W/m                      | 14,0 x 5,5          | 155                     | B02FHP23      |
| ELSR-FHP-38 | 38 W/m                      | 14,0 x 5,5          | 155                     | B02FHP38      |