

At a Glance

Applications



Freeze prevention



Temperature maintenance



Pipelines



Silos, vessels, tanks

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

Advantages

- › Four nominal outputs
- › UV-resistant
- › Moisture proof
- › Junction box for pipe mounting

Design

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

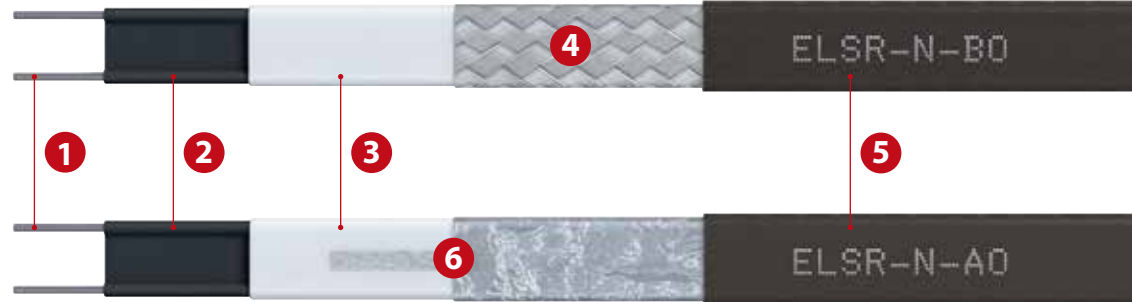
Approvals



- › Cable 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 T85°C Db
- › Certification
 - EPS 18 ATEX 1133 U
 - EPS 19 ATEX 1014 X
- › Temperature class
 - T6

Type ELSR-N

up to 80 °C



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

Checklist ELSR-N

Power Connection & End Termination

ELVB-SRAN-Ex-20	Power connection, glued, Gland M20, brass	0X81PND
EL-ECN-ex	Silicone termination cap, glued, transparent with ex marking	0X81EN1
ELVB-SREx-25	Power connection, glued, Gland M25 x 1,5, PE	0X81PA1
Ex-Con-SR	Ex connection sleeve Ø 36 x 210 mm 4J	0X81125
ELVB-SREx-IT	Power connection, glued, without gland	091AIT1
ELVB-SRA-25	Power connection, glued, Gland M25 x 1,5, PE	091A010
EL-ECN	Silicone termination cap, glued, transparent	09112N1
ELVB-SRV-N-L-W	Connection set, shrink-fit	0911116
El-Clic P/S	El-Clic P Fast connector with integrated cold lead	09ClicP
	El-Clic S Fast connector T-splice	09ClicS

Junction Boxes

ELAK-Ex-3.5	122 x 120 x 90 mm, 1 heater, capillary thermostat, IP 66	0X80055
ELAK-Ex-3.7	122 x 120 x 90, 1-3 heaters, power supply lead max. 10 mm ² , IP66	0X80057
Ex-it-R	ø 150 x 125 mm, 3 heaters, 1 Pt100 power supply lead, incl. mounting stand, IP 65	0X80070
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

Temperature Sensors

ELTF-PTEx.2	Pt100 4 conductor, 3 m PTFE cable	0X70002
ELTF-PTEx.4	2x Pt100 3 conductor, 3 m cold lead	0X70030
ELTF-PT.1	Pt100, 5 x 50 mm PVC 5 m	0650001
ELTF-PT.3	Pt100, 2 conductor, 5 x 50 mm, 3 m PTFE cable	0650003
ELTF-PT.3.1	Pt100, 3 conductor, 5 x 50 mm, 3 m PTFE cable	0650002

Technical Information

Maximum ambient temperature, energized	65 °C
Maximum ambient temperature, de-energized	80 °C
Nominal voltage*	230 V
Bending radius, min.	25 mm
Installation temperature, min.	-60 °C

*Further power inputs on request

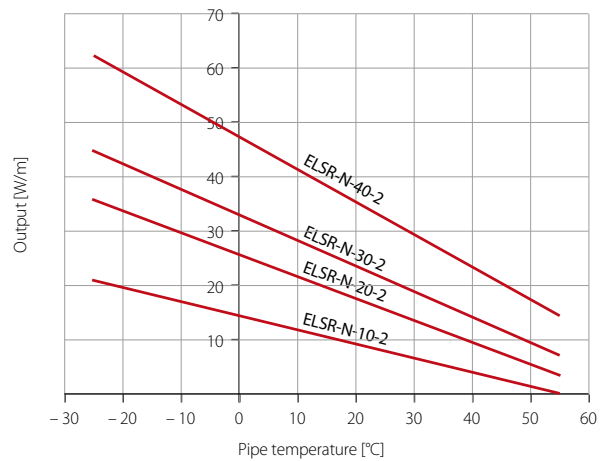
Heating circuit lengths on the following conditions

- 230 V nominal voltage
- Delayed action circuit breakers (C-characteristic) with 80 % maximum load
- Maximum 10 % line voltage drop on heating cable bus wire
- Power connection to one heater end

Switch-on temperature (°C)	Nominal cutout value (A)	Heating circuit length (m) for			
		ELSR-N-10-2	ELSR-N-20-2	ELSR-N-30-2	ELSR-N-40-2
10	10	128.0	68.0	52.0	36.0
	16	177.0	109.0	83.0	57.0
	20	177.0	129.0	104.0	71.0
	25	177.0	129.0	113.0	89.0
	32	177.0	129.0	113.0	94.0
0	10	106.0	57.0	45.0	31.0
	16	160.0	92.0	71.0	50.0
	20	160.0	115.0	89.0	62.0
	25	160.0	119.0	105.0	78.0
	32	160.0	119.0	105.0	88.0
-10	10	90.0	50.0	39.0	28.0
	16	144.0	79.0	63.0	44.0
	20	149.0	99.0	78.0	55.0
	25	149.0	111.0	98.0	69.0
	32	149.0	111.0	98.0	83.0
-20	10	78.0	44.0	35.0	25.0
	16	125.0	70.0	56.0	40.0
	20	139.0	87.0	69.0	50.0
	25	139.0	104.0	87.0	62.0
	32	139.0	104.0	87.0	78.0
-40	10	62.0	35.0	28.0	21.0
	16	99.0	56.0	45.0	33.0
	20	124.0	71.0	57.0	42.0
	25	124.0	88.0	71.0	52.0
	32	124.0	88.0	71.0	66.0

ELSR-N-...-2 output

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



Type	Nominal output	Dimensions approx. (mm)	Weight approx. (g/m)	Part No.
ELSR-N-10-2-AO	10 W/m at 10 °C	13.6 x 5.5	91	B0200130
ELSR-N-10-2-BO	10 W/m at 10 °C	14.1 x 5.8	108	B0200110
ELSR-N-10-2-BOT	10 W/m at 10 °C	13.8 x 5.6	108	B0200119
ELSR-N-20-2-AO	20 W/m at 10 °C	13.6 x 5.5	91	B0200230
ELSR-N-20-2-BO	20 W/m at 10 °C	14.1 x 5.8	108	B0200210
ELSR-N-20-2-BOT	20 W/m at 10 °C	13.8 x 5.6	108	B0200219
ELSR-N-30-2-AO	30 W/m at 10 °C	13.6 x 5.5	91	B0200330
ELSR-N-30-2-BO	30 W/m at 10 °C	14.1 x 5.8	108	B0200310
ELSR-N-30-2-BOT	30 W/m at 10 °C	13.8 x 5.6	108	B0200319
ELSR-N-40-2-AO	40 W/m at 10 °C	13.6 x 5.5	91	B0200430
ELSR-N-40-2-BO	40 W/m at 10 °C	14.1 x 5.8	108	B0200410
ELSR-N-40-2-BOT	40 W/m at 10 °C	13.8 x 5.6	108	B0200419