

At a Glance

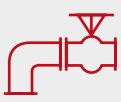
Applications



Freeze prevention



Temperature maintenance



Valves, pumps



Silos, vessels, tanks

- › Chemistry and Petrochemistry
- › Oil and Gas Industry
- › Power plants

Benefits

- › Temperature classification T3*
- › Five nominal outputs
- › Moisture proof
- › Resistant to chemicals
- › Use in hazardous areas

*Except for 90 W/m: T2

Design

BOT Protective braid, Fluoropolymer outer jacket

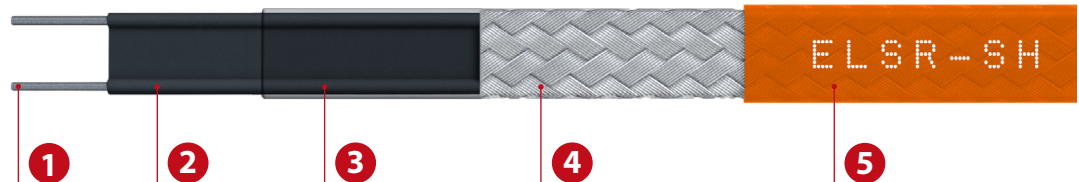
Approvals



- › 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 T3 Gb
 - II 2D Ex 60079-30-1 tb IIIC T220°C Db
- › Certification
 - IECEX EPS 18.0019 U
 - IECEX EPS 18.0014 X
 - EPS 18 ATEX 1 028 U
 - EPS 18 ATEX 1 020 X
 - CML 21 UKEX 3806 U
- › Temperature class T3/T2

ELSR-SH

up to 250 °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	Fluoropolymer

Checklist ELSR-SH

Power Connection & End Termination

ELVB-SREx-25	Power connection, glued, Gland M25 x 1,5, PE, Ex e	0X81PA1
ELVB-SREx-IT	Power connection, glued, without gland	091AIT1
EL-ECSH-Ex	Silicone termination cap, red, glued, with ex marking	0X81EH2
ELVB-SRASH-Ex-20	Power connection, glued, Gland M20, Ex d	0X81PSD
ELVB-SRAH-25	Power connection, glued, Gland M25 x 1,5, PE	091A040
Ex-Con-SR	Ex connection sleeve Ø 36 x 210 mm 4J	0X81125

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-5	122 x 120 x 90 mm, polyester, 3 breakouts M25, IP 66	0920013
Ex-it-R	Ø 150 x 125 mm, 3 Trace heaters, 1 Pt100, incl. mounting stand	0X80070



Technical Information

Max. continuous exposure temperature (power on)	165 °C
Max. intermittent exposure temperature (de-energized)	250 °C (max. 1000 h)
Nominal voltage*	230 V
Min. Bending radius	25 mm
Min. Installation temperature	- 60 °C

Heating circuit length

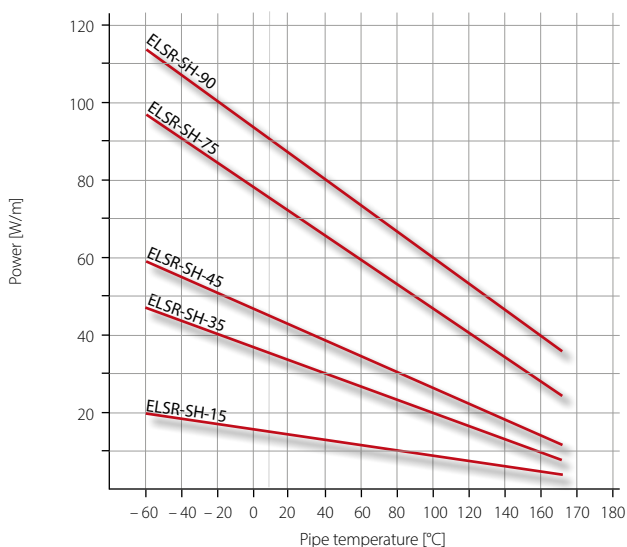
Switch on temperature [°C]	Nominal fuse rating [A]	Heating circuit length* ¹ [m] SH-				
		15-2 BOT	35-2 BOT	45-2 BOT	75-2 BOT	90-2 BOT
10	10	113.0	50.0	36.0	18.0	17.0
	16	172.0	80.0	58.0	30.0	27.0
	20	172.0	99.0	72.0	37.0	34.0
	25	172.0	107.0	90.0	47.0	42.0
	32	172.0	107.0	98.0	60.0	54.0
	40	172.0	107.0	98.0	73.0	68.0
0	10	106.0	47.0	34.0	17.0	16.0
	16	169.0	75.0	55.0	28.0	26.0
	20	172.0	94.0	69.0	35.0	32.0
	25	172.0	107.0	86.0	44.0	40.0
	32	172.0	107.0	98.0	57.0	52.0
	40	172.0	107.0	98.0	71.0	64.0
-10	10	99.0	44.0	32.0	16.0	15.0
	16	159.0	71.0	52.0	26.0	25.0
	20	172.0	89.0	65.0	33.0	31.0
	25	172.0	107.0	81.0	41.0	38.0
	32	172.0	107.0	98.0	53.0	50.0
	40	172.0	107.0	98.0	66.0	62.0

Switch on temperature [°C]	Nominal cutout value [A]	Heating circuit length* ¹ [m] SH-				
		15-2 BOT	35-2 BOT	45-2 BOT	75-2 BOT	90-2 BOT
-20	10	94.0	42.0	30.0	15.0	15.0
	16	150.0	67.0	48.0	25.0	24.0
	20	172.0	84.0	60.0	31.0	30.0
	25	172.0	105.0	75.0	38.0	37.0
	32	172.0	107.5	96.0	50.0	48.0
	40	172.0	107.5	98.0	62.0	60.0
-30	10	89.0	40.0	27.5	15.0	14.0
	16	142.0	64.0	44.0	24.0	23.0
	20	172.0	80.0	55.0	30.0	29.0
	25	172.0	100.0	68.75	37.0	36.0
	32	172.0	107.5	88.0	48.0	46.0
	40	172.0	107.5	98.0	60.0	58.0
-40	10	84.0	38.0	25.0	14.0	14.0
	16	135.0	61.0	40.0	22.0	22.0
	20	169.0	76.0	50.0	28.0	28.0
	25	172.0	95.0	62.5	35.0	35.0
	32	172.0	107.5	80.0	45.0	44.0
	40	172.0	107.5	98.0	56.0	56.0

Power output

ELSR-SH-xx-2-BOT 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 [at 10°C]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-SH-15-2-BOT	15 W/m	14,0 x 5,4	146	B0226153
ELSR-SH-35-2-BOT	35 W/m	14,0 x 5,4	146	B0226353
ELSR-SH-45-2-BOT	45 W/m	14,0 x 5,4	146	B0226453
ELSR-SH-75-2-BOT	75 W/m	14,0 x 5,4	146	B0226753
ELSR-SH-90-2-BOT	90 W/m	14,0 x 5,4	146	B0226903