

At a Glance

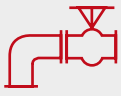
Applications



Freeze prevention



Temperature maintenance



Valves, pumps



Silos, vessels, tanks

- › Chemistry and Petrochemistry
- › Oil and Gas Industry
- › Power plants
- › Water and sanitation utilities

Benefits

- › Nine nominal outputs
- › Moisture proof
- › Resistant to chemicals
- › Use in hazardous areas

Design

- BOT** Protective braid, Fluoropolymer outer jacket

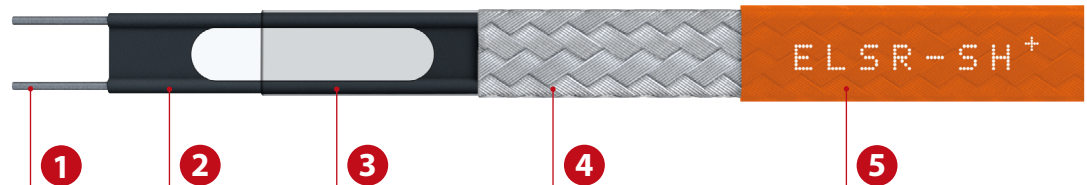
Approvals



- › Trace Heater classification
 - II 2G Ex 60079-30-1 db IIC T6...T2 Gb
 - II 2G Ex 60079-30-1 eb IIC T6...T2 Gb
 - II 2D Ex 60079-30-1 tb IIIC T85°C...T300°C Db
- › Certification
 - IECEx FMG24.0009X
 - FM 24 ATEX 0011X
- › Temperature class T2* (T3, T4, T5, T6 by specific design)

ELSR-SH⁺

up to 250°C



1 Bus wire	Nickel plated copper, 1.23 mm ²
2 Self-regulating heating element	
3 Insulation	Fluoropolymer
4 Protection	Protective braid (Cu, nickel plated)
5 Outer jacket	Fluoropolymer

Checklist ELSR-SH⁺

Power Connection & End Termination

EL-ECSH-Ex	Silicone termination cap, red, cold assembly, with ex marking	0X81EH2
Ex-Con-SR	Ex connection sleeve Ø 36 x 210 mm 4J	0X81125
ELVB-SREx-SH+-20	Power connection, cold assembly, gland M20, brass, Ex d e	0X81SP1
ELVB-SREx-25	Power connection, cold assembly, gland M25 x 1,5, PE, Ex e	0X81PA1
ELVB-SREx-IT	Power connection, cold assembly, without gland	091AIT1
ELVB-SRV-H	Splice set, shrink-fit	0911117
ELVB-SRA-25	Power connection, cold assembly, gland M25 x 1,5, PE	091A010

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-Ex-R7	Ø 150 x 125 mm, 1 - 3 Trace heaters, 1 power cable	0X80077
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
Ex-It-R-T	Ø 150 x 125 mm, 3 Trace heaters, splice or T-connection	0X80082
ELAK-RS	Ø 150 x 125 mm, 3 Trace heaters, 1 Pt100, incl. mounting stand	0920050
ELAK-RS-T	Ø 150 x 125 mm, 3 Trace heaters, splice or T-connection	0920059



Technical Information

Max. continuous exposure temperature (power on)	185 °C
Max. continuous exposure temperature (power off)	250 °C
Nominal voltage* ¹	230 VAC / 120 VAC
Min. Bending radius	25 mm
Min. Installation temperature	- 60 °C

Heating Circuit Length

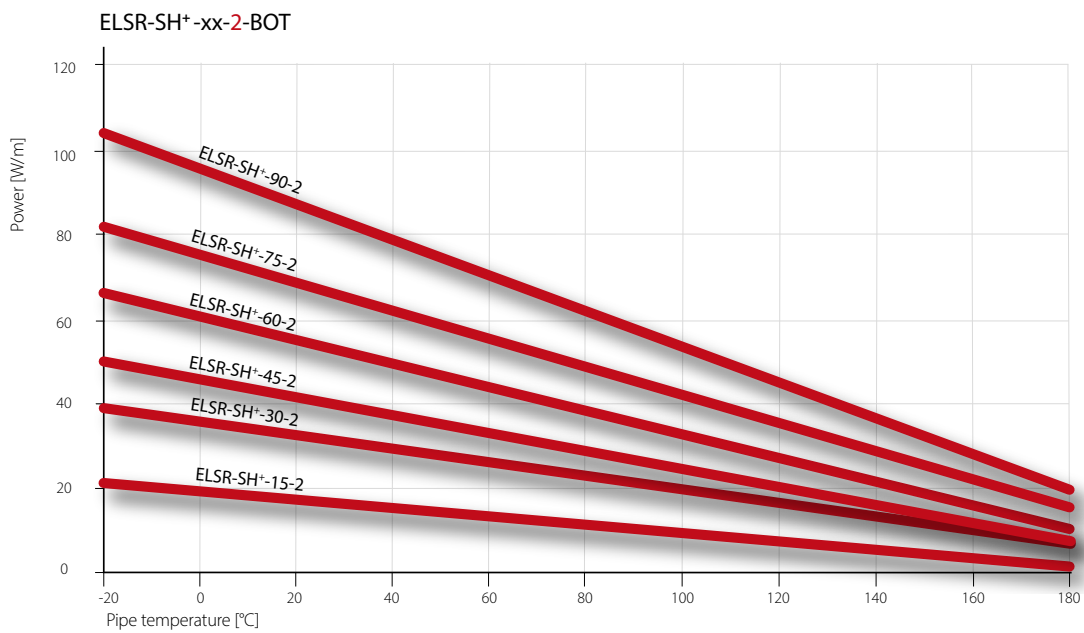
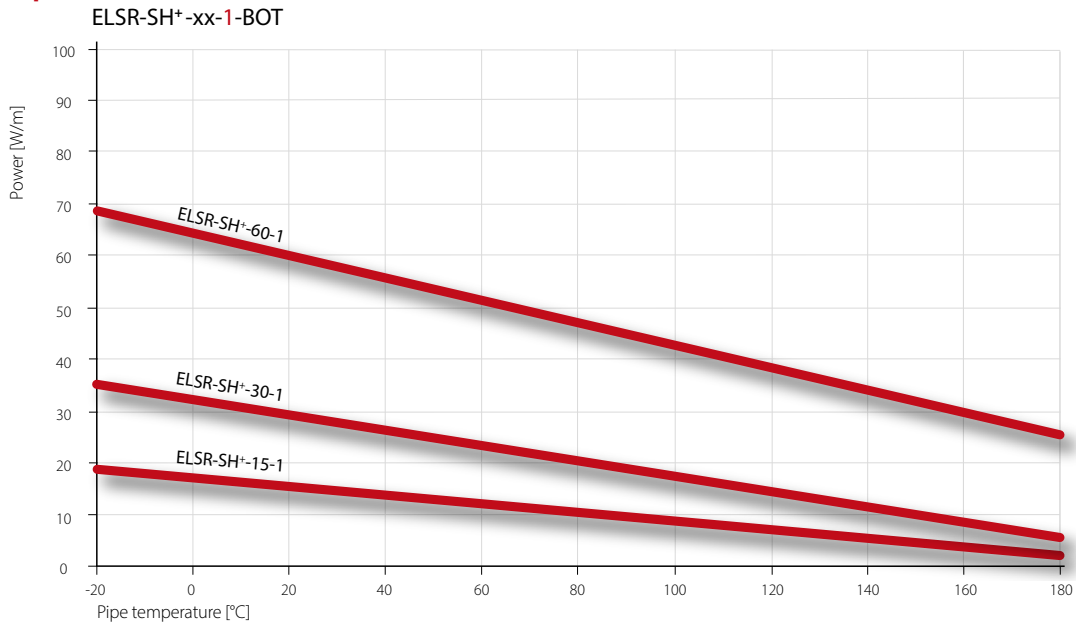
Switch on temperature [°C]	Nominal fuse rating [A]	Heating circuit length* ¹ [m]								
		ELSR-SH+ -15-2-BOT	ELSR-SH+ -30-2-BOT	ELSR-SH+ -45-2-BOT	ELSR-SH+ -60-2-BOT	ELSR-SH+ -75-2-BOT	ELSR-SH+ -90-2-BOT	ELSR-SH+ -15-1-BOT	ELSR-SH+ -30-1-BOT	ELSR-SH+ -60-1-BOT
10	10	104	52	35	28	21	12	46	26	12
	16	150	84	58	44	31	20	72	42	19
	20	150	105	87	56	39	25	72	53	24
	25	150	108	87	70	48	31	72	54	30
	32	150	108	87	78	63	40	72	54	36
	40	150	108	87	78	73	44	72	54	36
0	10	99	50	36	27	19	12	44	25	11
	16	149	80	56	43	30	19	70	40	18
	20	149	100	87	53	38	24	72	51	23
	25	149	107	87	67	48	30	72	54	29
	32	149	107	87	77	61	38	72	54	36
	40	149	107	87	77	73	42	72	54	36
-10	10	94	48	34	25	18	11	42	24	11
	16	148	76	54	40	30	18	67	38	17
	20	148	95	68	51	37	23	71	48	22
	25	148	107	87	64	46	29	71	53	28
	32	148	107	87	77	60	36	71	53	35
	40	148	107	87	77	73	40	71	53	36
-30	10	86	44	32	23	18	10	38	22	10
	16	137	70	51	37	27	16	61	35	16
	20	146	88	63	47	34	21	70	44	20
	25	146	107	87	59	43	26	70	53	26
	32	146	107	87	75	55	33	70	53	33
	40	146	107	87	77	73	37	70	53	35

*¹ Heating circuit lengths on the following conditions

- 230 VAC (Type B0310XX3), 120 VAC (Type B0310XX1)
- 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



Power Output ELSR-SH⁺ (on insulated metallic pipes in accordance with EN 62395-1)



Ordering Information

Type	Nominal output [@ 10°C / @120V;230V]	WxH approx. [mm]	Weight approx. [g/m]	Article - Nº.
ELSR-SH ⁺ -15-1-BOT	15 W/m	14.0 x 5.5	150	B0310151
ELSR-SH ⁺ -30-1-BOT	30 W/m	14.0 x 5.5	150	B0310301
ELSR-SH ⁺ -60-1-BOT	60 W/m	14.0 x 5.5	150	B0310601
ELSR-SH ⁺ -15-2-BOT	15 W/m	14.0 x 5.5	150	B0310153
ELSR-SH ⁺ -30-2-BOT	30 W/m	14.0 x 5.5	150	B0310303
ELSR-SH ⁺ -45-2-BOT	45 W/m	14.0 x 5.5	150	B0310453
ELSR-SH ⁺ -60-2-BOT	60 W/m	14.0 x 5.5	150	B0310603
ELSR-SH ⁺ -75-2-BOT	75 W/m	14.0 x 5.5	150	B0310753
ELSR-SH ⁺ -90-2-BOT	90 W/m	14.0 x 5.5	150	B0310903