

At a Glance

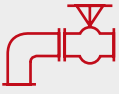
Applications



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

Designs

- BOT** Protective braid, Fluoropolymer outer jacket

Approvals



> Classification

Class I Div 1, Groups B, C, D; T2B/T6*
 Class I Div 2, Groups A, B, C, D; T2B/T6
 Class II Div 1, Groups E, F, G; T2B/T6
 Class II Div 2, Groups E, F, G; T2B/T6
 Class III Div 1, T2B/T6
 Zone 1, AEx 60079-30-1 IIC T6 Gb; T2B/T6
 Zone 1, Ex 60079-30-1 IIC T6 Gb; T2B/T6

> Certification

FM24US0046X
 FM24US0047X
 FM24CA0020X
 FM24CA0021X

> Standards

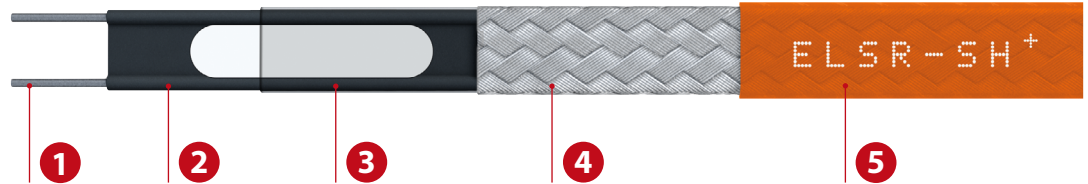
IEC/IEEE 60079-30-1
 IEEE 515/CSA 22.2 130-16
 ANSI/UL 60079-30-1

> Temperature class T2B to T6*²

*¹with termination kit part no. 09CA051
²Please note certificate for the respective Temperature Classes of each cable system.

ELSR-SH⁺

up to 482 °F (250 °C)



1	Bus wire	Nickel plated copper
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-HAZELECT [®]	Heater entry kit for Div1 rated junction box, 3/4" NPT, for ELSR-SH+, Division 1 rated	09CA051
ELVB-SREx-SH+-20 [®]	Power Connection Kit for ELSR-SH+ with nickel plated cable gland, M20x1,5, for classified locations, Ex d e	09CA070
ELVB-SREx-SH+-3/4" [®]	Power Connection Kit for ELSR-SH+ with nickel plated cable gland, 3/4" NPT, for classified locations, Ex d e	09CA071
ELVB-SREx-SH+-1/2" [®]	Power Connection Kit for ELSR-SH+ with nickel plated cable gland, 1/2" NPT, for classified locations, Ex d e	09CA072
EL-ECSH-ex [®]	Silicone termination cap for ELSR-SH+, red, cold assembly	09CA024

[®] Please note the certificate

Technical Information

Max. continuous exposure temperature (power on)	365 °F (185 °C)
Max. continuous exposure temperature (power off)	482 °F (250 °C)
Nominal voltage	120 VAC (ELSR-SH+-XX-1-BOT) 240 VAC / 277 VAC (ELSR-SH+-XX-2-BOT)
Min. Bending radius	1" (25 mm)
Min. Installation temperature	-76 °F (-60 °C)
Usage rating	Wet rated, for outdoor use (-WS)

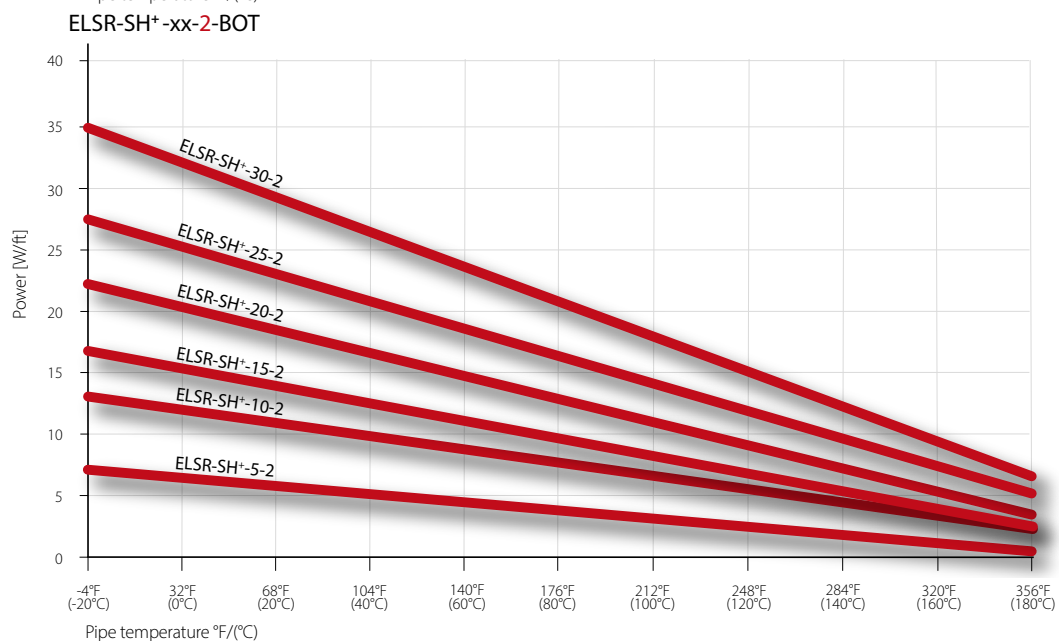
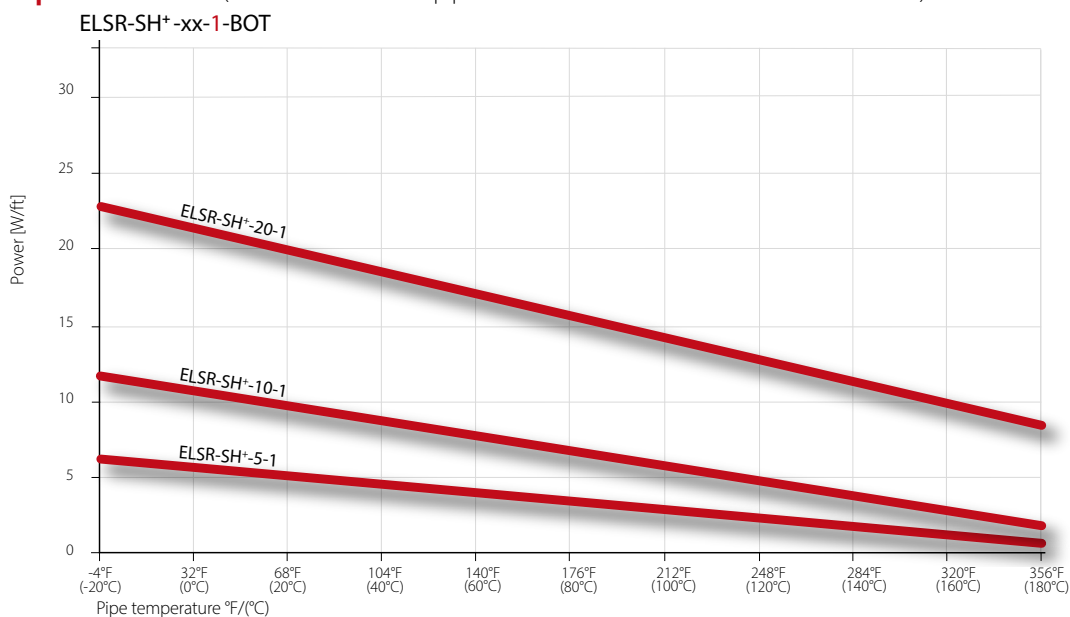
Heating Circuit Length

Switch on temperature [°F/°C]	Nominal fuse rating [A]	Heating circuit length*1 [ft]								
		ELSR-SH+ -5-2-BOT	ELSR-SH+ -10-2-BOT	ELSR-SH+ -15-2-BOT	ELSR-SH+ -20-2-BOT	ELSR-SH+ -25-2-BOT	ELSR-SH+ -30-2-BOT	ELSR-SH+ -5-1-BOT	ELSR-SH+ -10-1-BOT	ELSR-SH+ -20-1-BOT
50 °F (10 °C)	10	330	164	109	89	55	39	153	87	39
	15	492	248	163	131	82	59	228	131	61
	20	492	330	218	176	110	79	238	176	80
	25	492	353	271	220	137	98	238	177	100
	30	492	353	295	254	165	118	238	177	118
	35	492	353	295	254	193	138	238	177	118
	40	492	353	295	254	221	157	238	177	118
32 °F (0 °C)	10	312	157	104	84	53	38	144	84	38
	15	468	236	156	126	79	57	217	125	57
	20	489	315	208	169	105	75	236	167	77
	25	489	351	260	210	131	95	236	177	95
	30	489	351	292	253	156	113	236	177	115
	35	489	351	295	254	181	133	236	177	118
	40	489	351	295	254	206	151	236	177	118
14 °F (-10 °C)	10	297	151	99	80	50	36	138	79	36
	15	445	226	149	121	75	54	207	120	56
	20	484	300	198	161	100	72	235	159	74
	25	484	351	248	202	125	90	235	176	92
	30	484	351	295	243	150	108	235	176	110
	35	484	351	295	253	175	126	235	176	118
	40	484	351	295	253	200	144	235	176	118
-22 °F (-30 °C)	10	271	138	91	74	46	33	126	72	34
	15	405	208	138	112	70	51	189	110	51
	20	479	277	183	149	93	67	231	146	67
	25	479	346	229	187	116	84	231	174	85
	30	479	348	276	223	139	100	231	174	102
	35	479	348	295	251	162	118	231	174	116
	40	479	348	295	251	184	135	231	174	116
Scaling factor	208 VAC	1.00	1.00	1.00	1.00	1.00	1.00			
	277 VAC	0.89	0.9	0.95	0.95	0.95	0.97			

*1 Heating circuit lengths on the following conditions

- 240 VAC (Type BA310XX3), 120 VAC (Type BA310XX1)
- Delayed action circuit breakers (type QO) 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 IEEE 515/CSA 22.2 130-16)



Ordering Information

Type	Nominal output [@ 50°F / @120V;240V]	WxH approx. [mm]	Weight approx. [g/ft]	Article - No.
ELSR-SH ⁺ -5-1-BOT	5 W/ft	14.0 x 5.5	46	BA310151
ELSR-SH ⁺ -10-1-BOT	10 W/ft	14.0 x 5.5	46	BA310301
ELSR-SH ⁺ -20-1-BOT	20 W/ft	14.0 x 5.5	46	BA310601
ELSR-SH ⁺ -5-2-BOT	5 W/ft	14.0 x 5.5	46	BA310153
ELSR-SH ⁺ -10-2-BOT	10 W/ft	14.0 x 5.5	46	BA310303
ELSR-SH ⁺ -15-2-BOT	15 W/ft	14.0 x 5.5	46	BA310453
ELSR-SH ⁺ -20-2-BOT	20 W/ft	14.0 x 5.5	46	BA310603
ELSR-SH ⁺ -25-2-BOT	25 W/ft	14.0 x 5.5	46	BA310753
ELSR-SH ⁺ -30-2-BOT	30 W/ft	14.0 x 5.5	46	BA310903