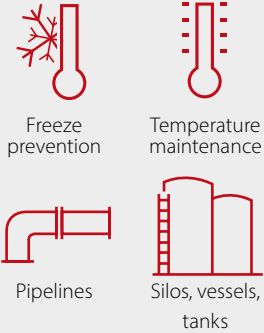


At a Glance

Applications



- › Chemistry and Petrochemistry
- › Oil and Gas Industry
- › Food Processing Industry
- › Automotive
- › Cryogenic Storage Tanks

Benefits

- › Multiple nominal outputs
- › Weather resistant
- › UV-resistant

Designs

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

Approvals

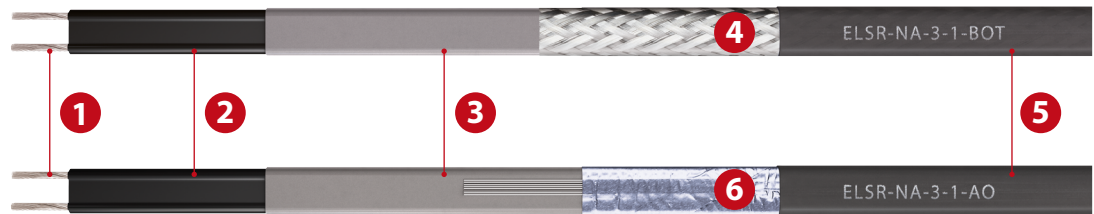


- › Classification
 - Class I Div 1* Group B,C,D
 - Class I Div 2 Group A,B,C,D
 - Class II Div 2 Group E,F,G
 - Class III T6
 - Class I Zone1 Ex eb IIC Gb
- › Certification
 - CSA C US 2547790
- › Standards
 - IEEE 515, CSA 22.2 130.16
 - IEC/IEEE 60079-30-1

*with termination kit part no. 09CA051; Canada only

ELSR-NA

up to 176 °F (80 °C)



1	Bus wire	Nickel plated copper, 16 AWG (1.23 mm ²)
2	Self-regulating heating element	
3	Insulation	
4	Protection	Protective braid (Cu, tin plated)
5	Outer jacket	TPE-O
6	Protective conductor connection	Cu, tin plated with aluminium foil

Checklist

Power Connection & End Termination

El-Clc P	El-Clc P Fast connector with 2.5m cold lead H05 SS-F 3 G 1,5	09CAICP
El-Clc S	El-Clc S Fast connector T-splice	09CAICS
EL-HAZELECT*	Heater entry kit for Div1 rated junction box, 3/4" NPT, for ELSR-NA & -HA, Division 1 rated, hazardous location	09CA051
ELVB-SREx-3/4" BR HT	Power Connection Kit for ELSR-HA, -NA with nickel plated cable gland, 3/4" NPT, hazardous location ^②	09CA007
ELVB-SREx-20 BR HT	Power Connection Kit ELSR-HA, -NA with nickel plated cable gland, M20, hazardous location ^②	09CA008
ELVB-SRAN-3/4" ST	Power Connection Kit ELSR-NA with steel/zinc cable gland / fitting, 3/4" NPT, non-hazardous location ^②	09CA012
ELVB-SRAN-3/4" P*	Power Connection Kit ELSR-NA with polymer cable gland / fitting, 3/4" NPT, non-hazardous location ^②	09CA036
ELVB-SRAN-1/2" P*	Power Connection Kit ELSR-NA with polymer cable gland / fitting, 1/2" NPT, non-hazardous location ^②	09CA037
ELVB-SRAN	Power Connection kit ELSR-NA without gland	09CA015
 EL-ECN-ex	End Termination Kit for ELSR-NA, -WA, hazardous location ^②	09CA022

* Canada only

^①min. installation temperature -49 °F (-45 °C)

^②coverage: braiding 80 %, aluminum foil 100 %

Technical Information

Min. start up temperature	-22 °F (-30 °C)
Max. continuous exposure temperature (power on)	140 °F (60 °C)
Max. intermittent exposure temperature (de-energized)	176 °F (80 °C - max. 1000 h)
Nominal voltage	120 VAC (ELSR-NA-XX-1-XX) / 240 VAC (ELSR-NA-XX-2-XX)
Min. Bending radius	25 mm
Min. Installation temperature	-49 °F (- 45 °C)
Rating	Wet rated, for outdoor use (WS)

Heating Circuit Length

Heating circuit length factor 208 VAC vs. 240 VAC

► 0.93

120 VAC

Start up temperature [°C]	Nominal CB rating [A]	Heating circuit length [ft]		
		ELSR-NA-3-1	ELSR-NA-5-1	ELSR-NA-7-1
50 °F (10 °C)	10	159	125	82
	15	238	187	123
	20	317	249	164
	25	397	312	205
	30	476	374	246
	35	555	436	287
	40	612	499	328
32 °F (0 °C)	10	143	112	75
	15	215	168	113
	20	287	224	151
	25	358	280	188
	30	430	336	226
	35	502	392	264
	40	573	448	301
14 °F (-10 °C)	10	130	102	69
	15	195	153	104
	20	260	204	139
	25	325	255	173
	30	390	306	208
	35	455	357	243
	40	520	408	277
-22 °F (-30 °C)	10	110	87	60
	15	165	130	90
	20	220	173	120
	25	275	217	150
	30	330	260	180
	35	385	303	210
	40	440	347	240

240 VAC

Start up temperature [°C]	Nominal CB rating [A]	Heating circuit length [ft]			
		ELSR-NA-4-2	ELSR-NA-6-2	ELSR-NA-8-2	ELSR-NA-10-2
50 °F (10 °C)	10	273	170	127	66
	15	410	255	191	99
	20	547	340	255	132
	25	683	425	318	165
	30	820	510	382	198
	35	957	595	446	231
	40	1087	857	509	264
32 °F (0 °C)	10	245	154	117	61
	15	367	231	175	91
	20	489	308	233	121
	25	612	385	292	152
	30	734	462	350	182
	35	856	539	408	212
	40	979	616	467	243
14 °F (-10 °C)	10	222	141	108	57
	15	333	211	162	85
	20	444	281	216	113
	25	555	352	270	142
	30	666	422	324	170
	35	777	492	378	198
	40	888	563	432	227
-22 °F (-30 °C)	10	187	120	93	50
	15	280	180	140	75
	20	373	240	187	100
	25	467	300	233	125
	30	560	360	280	150
	35	653	420	327	175
	40	747	480	373	200

Heating circuit lengths on the following conditions

- Voltage 120 VAC (-1-) / 240 VAC (-2-) / 277 VAC (-3-)
- Voltage drop max. 10%
- MCB type QO (100% utilisation)
- Single heater fed from 1 end

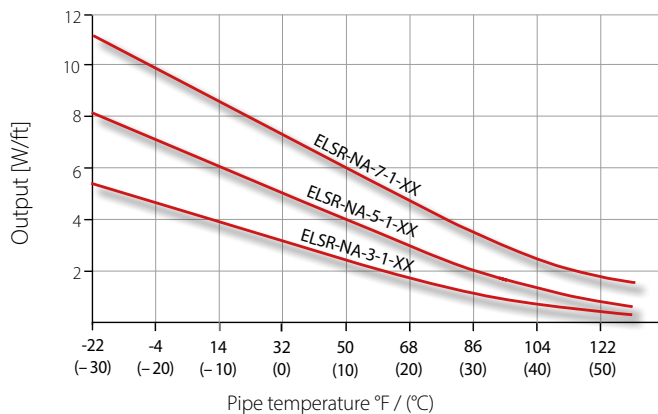
Power Output

Nominal output factor 208 V vs. 240 V

► 0.88

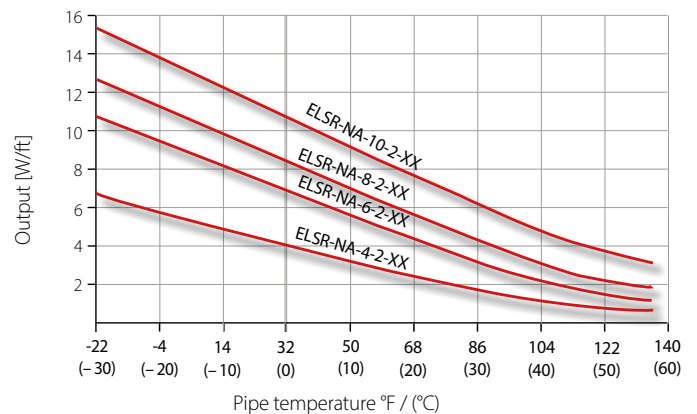
120 VAC

ELSR-NA-xx-1-xx Power
(on insulated metallic pipes)



240 VAC

ELSR-NA-xx-2-xx Power
(on insulated metallic pipes)



Ordering Information

120 VAC

Type	Nominal output [W/ft at 41°F] (5 °C)	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-NA-3-1-AO	3 W/ft	13.6 x 5.5	91	BA200131
ELSR-NA-3-1-BO	3 W/ft	14.1 x 5.8	108	BA200111
ELSR-NA-3-1-BOT	3 W/ft	13.8 x 5.6	108	BA200121
ELSR-NA-5-1-AO	5 W/ft	13.6 x 5.5	91	BA200231
ELSR-NA-5-1-BO	5 W/ft	14.1 x 5.8	108	BA200211
ELSR-NA-5-1-BOT	5 W/ft	13.8 x 5.6	108	BA200221
ELSR-NA-7-1-AO	7 W/ft	13.6 x 5.5	91	BA200331
ELSR-NA-7-1-BO	7 W/ft	14.1 x 5.8	108	BA200311
ELSR-NA-7-1-BOT	7 W/ft	13.8 x 5.6	108	BA200321

240 VAC

Type	Nominal output [W/ft at 41°F] (5 °C)	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-NA-4-2-AO	4 W/ft	13.6 x 5.5	91	BA200130
ELSR-NA-4-2-BO	4 W/ft	14.1 x 5.8	108	BA200110
ELSR-NA-4-2-BOT	4 W/ft	13.8 x 5.6	108	BA200120
ELSR-NA-6-2-AO	6 W/ft	13.6 x 5.5	91	BA200230
ELSR-NA-6-2-BO	6 W/ft	14.1 x 5.8	108	BA200210
ELSR-NA-6-2-BOT	6 W/ft	13.8 x 5.6	108	BA200220
ELSR-NA-8-2-AO	8 W/ft	13.6 x 5.5	91	BA200330
ELSR-NA-8-2-BO	8 W/ft	14.1 x 5.8	108	BA200310
ELSR-NA-8-2-BOT	8 W/ft	13.8 x 5.6	108	BA200320
ELSR-NA-10-2-AO	10 W/ft	13.6 x 5.5	91	BA200430
ELSR-NA-10-2-BO	10 W/ft	14.1 x 5.8	108	BA200410
ELSR-NA-10-2-BOT	10 W/ft	13.8 x 5.6	108	BA200420