

At a Glance

Applications



Temperature maintenance



Pipelines

- › Fat-containing wastewater pipes in canteens and large-scale kitchens
- › Installation of hot water supplies
- › Freeze protection of heated lines or pipes
- › Food processing industry

Benefits

- › Two nominal outputs
- › Water proof

Designs

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

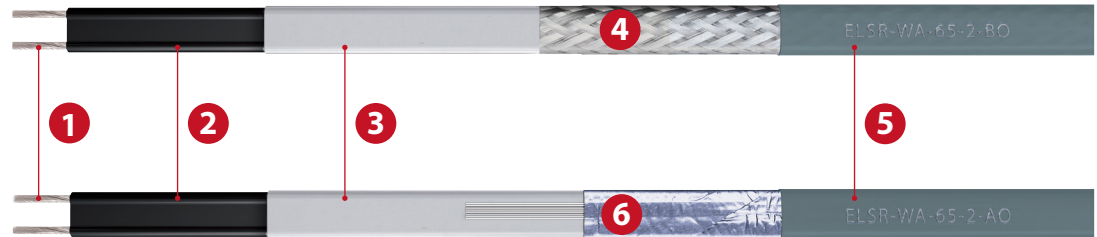
Approvals



- › Classification
Class I Zone 1 AEx / Ex e II T5
Class I Div 2 Group A, B, C, D
Class II Div 1 Group E, F, G
Class III Div 1
- › Certification
FM 16 CA 0183 X
FM 16 US 0394 X
FM 16 NUS 0014
- › Standards
IEEE 515, CSA 22.2 130.03

ELSR-WA

up to 194 °F (90 °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	see 4 or Cu, tin plated with aluminium foil

Checklist

Power Connection & End Termination

El-Clic P	El-Clic P Fast connector with 2.5m cold lead H05 SS-F 3 G 1,5	09CAICP
El-Clic S	El-Clic S Fast connector T-splice	09CAICS
ELVB-SREx-3/4" BR HT	Power Connection Kit ELSR-WA with nickel plated cable gland, 3/4" NPT hazardous location [Ⓣ]	09CA027
ELVB-SREx-20 BR HT	Power Connection Kit ELSR-WA, with nickel plated cable gland, M20 hazardous location [Ⓣ]	09CA028
ELVB-SRAW-3/4" ST	Power Connection Kit ELSR-WA with steel/zinc cable gland/fitting, 3/4" NPT [Ⓣ]	09CA019
ELVB-SRAW	Power Connection kit ELSR-WA without gland	09CA053
ELVB-SRAN	Power Connection kit ELSR-WA without gland	09CA015
EL-ECN-ex	End Termination Kit for ELSR-WA hazardous location [Ⓣ]	09CA022
EL-ECW	End Termination Kit for ELSR-WA [Ⓣ]	09CA043

* Canada only

[Ⓣ]min. installation temperature -49 °F (-45 °C)

[Ⓣ]coverage: braiding 80 %, aluminum foil 100 %

Technical Information

Min. start up temperature	-22 °F (-30 °C)
Max. continuous exposure temperature (power on)	176 °F (80 °C)
Max. intermittent exposure temperature (de-energized)	194 °F (90 °C - max. 1000 h)
Nominal voltage	120 VAC (ELSR-WA-XX-1-XX) / 240 VAC (ELSR-WA-XX-2-XX)
Min. Bending radius	0.79 in (20 mm)
Min. Installation temperature	-49 °F (- 45 °C)
Rating	Wet rated, for outdoor use (WS)

Heating Circuit Length

Heating circuit length factor 208 V vs. 240 V

▶ 1.90

120 VAC

Start up temperature [°C]	Nominal CB rating [A]	Heating circuit length [ft]	
		ELSR-WA-55-1	ELSR-WA-65-1
50 °F (10 °C)	10	144	97
	15	219	145
	20	246	194
	25	246	198
	30	246	198
32 °F (0 °C)	10	131	87
	15	197	133
	20	233	176
	25	233	189
	30	233	189
14 °F (-10 °C)	10	118	81
	15	180	121
	20	221	160
	25	221	180
	30	221	180
-22 °F (-30 °C)	10	102	68
	15	153	103
	20	202	139
	25	203	167
	30	203	167

240 VAC

Start up temperature [°C]	Nominal CB rating [A]	Heating circuit length [ft]	
		ELSR-WA-55-2	ELSR-WA-65-2
50 °F (10 °C)	10	231	149
	15	348	226
	20	430	302
	25	430	348
	30	430	348
32 °F (0 °C)	10	207	136
	15	312	203
	20	405	272
	25	405	326
	30	405	326
14 °F (-10 °C)	10	187	123
	15	279	184
	20	372	247
	25	384	310
	30	384	312
-22 °F (-30 °C)	10	158	105
	15	237	160
	20	315	212
	25	353	263
	30	353	286

Heating circuit lengths on the following conditions

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

Power Output

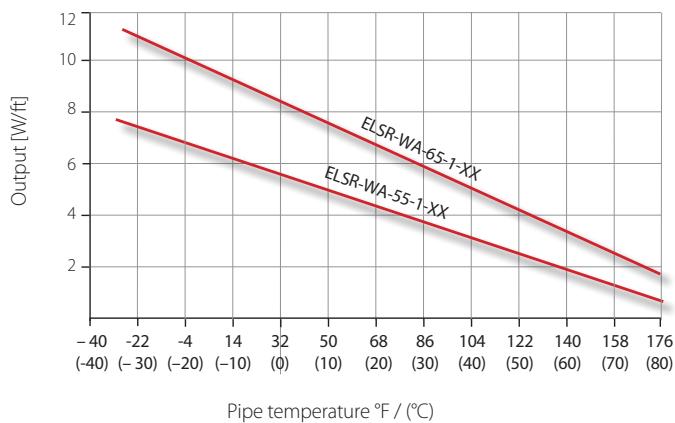
Nominal output factor 208 VAC zu 240 VAC

➤ 0.80

120 VAC

ELSR-WA-XX-1-XX output

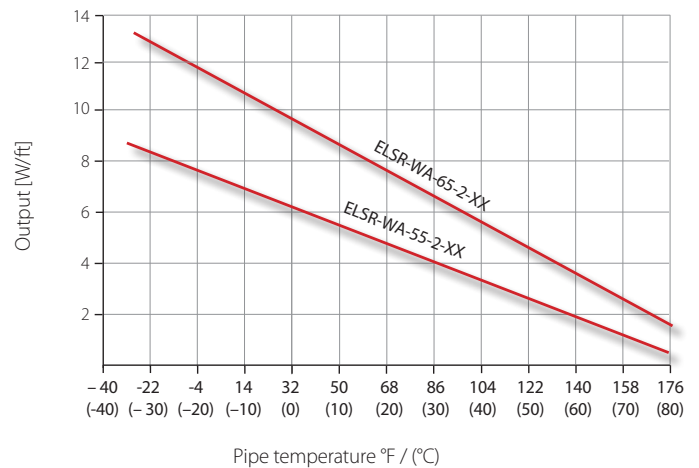
(on insulated metallic pipes, in accordance with IEEE 515/CSA 22.2 130-03)



240 VAC

ELSR-WA-XX-2-XX output

(on insulated metallic pipes, in accordance with IEEE 515/CSA 22.2 130-03)



Ordering Information

Used for water supply lines

120 VAC

Type	Nominal output [at 131°F (55°C)]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-WA-55-1-AO	3 W/ft	13.4 x 5.8	100	BA200360
ELSR-WA-55-1-BO	3 W/ft	13.6 x 5.6	130	BA200370
ELSR-WA-65-1-AO	4 W/ft	13.4 x 5.8	100	BA200460
ELSR-WA-65-1-BO	4 W/ft	13.6 x 5.6	130	BA200470

240 VAC

Type	Nominal output [at 131°F (55°C)]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-WA-55-2-AO	3 W/ft	13.4 x 5.8	100	BA200380
ELSR-WA-55-2-BO	3 W/ft	13.6 x 5.6	130	BA200390
ELSR-WA-65-2-AO	4 W/ft	13.4 x 5.8	100	BA200480
ELSR-WA-65-2-BO	4 W/ft	13.6 x 5.6	130	BA200490

Used with fat / oil lines

120 VAC

Type	Nominal output used with fat/ oil lines [at 104°F (40°C)]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-WA-65-1-AO	7 W/ft	13.4 x 5.8	100	BA200460
ELSR-WA-65-1-BO	7 W/ft	13.6 x 5.6	130	BA200470

240 VAC

Type	Nominal output used with fat/ oil lines [at 104°F (40°C)]	WxH approx. [mm]	Weight approx. [g/m]	Article - No.
ELSR-WA-65-2-AO	7 W/ft	13.4 x 5.8	100	BA200480
ELSR-WA-65-2-BO	7 W/ft	13.6 x 5.6	130	BA200490