



# ELK-MI

## Mineral Insulated (M.I.) Alloy 825 Cable Assembly

### Features

#### Outer jacket

- Alloy 825.

#### Bus wire

- Conductor type might vary depending on model (Nichrome, KP, Constantan, Alloy (30, 60, 90), Copper).

#### Cold lead length

- 6 ft. (1.8 m) cold lead includes 18 in. (45 cm) flexible cord.

#### Ambient temperature

- -60 °C to +60 °C (-76 °F to +140 °F).

#### Maximum operating temperature (power on)

- 700 °C (1292 °F).

#### Nominal voltage

- Up to 600V.

#### Bending radius, minimum

- Diameter x 6.

#### Installation temperature, minimum

- -60 °C (-76 °F).

#### Classification

- Class I, Division 2, Groups A, B, C, D.
- Class II, Division 1, Groups E, F, G.
- Class III, Division 1.
- Class I, Zone 1, AEx/Ex d e IIC T1...T6.

#### Standards

- CSA C22.2 130-16.
- UL 60079-30-1.

#### Certification

- FM 18 US0191X.
- FM 18 CA0089X.

#### Rating

- Moisture proof, may be immersed in fluids.

#### Warranty

- 1-year basic warranty on the heating cable.

#### Application

- Temperature maintenance, silos, vessels, tanks, pipelines, chemical and petrochemical industries, oil and gas industry, industrial processes, mobile processing facilities, vacuum processes, freeze prevention.





## Models

Double Conductor 300V						Double Conductor 600V						Single Conductor 600V					
Product #	Dia. in.	Ω/ft.	Dia. mm	Ω/m	Conductor Type	Product #	Dia. in.	Ω/ft.	Dia. mm	Ω/m	Conductor Type	Product #	Dia. in.	Ω/ft.	Dia. mm	Ω/m	Conductor Type
11E0L-2S	0.16	11	4.1	36.089	Nichrome R	11E0H-2S	0.22	11	5.6	36.089	Nichrome R	30E1H-1S	0.17	3	4.3	9.842	Nichrome R
90E1L-2S	0.16	9	4.1	29.527	Nichrome R	90E1H-2S	0.23	9	5.7	29.527	Nichrome R	20E1H-1S	0.17	2	4.3	6.562	Nichrome R
75E1L-2S	0.16	7.5	4.1	24.606	Nichrome R	75E1H-2S	0.24	7.5	6.0	24.606	Nichrome R	19E1H-1S	0.17	1.88	4.3	6.168	Nichrome R
60E1L-2S	0.16	6	4.1	19.685	Nichrome R	60E1H-2S	0.23	6	5.8	19.685	Nichrome R	16E1H-1S	0.17	1.6	4.3	5.249	Nichrome A
50E1L-2S	0.16	5	4.1	16.404	Nichrome R	40E1H-2S	0.24	4	6.1	13.123	Nichrome A	13E1H-1S	0.17	1.3	4.3	4.265	Nichrome A
40E1L-2S	0.16	4	4.1	13.123	Nichrome A	30E1H-2S	0.26	3	6.5	9.842	Nichrome A	12E1H-1S	0.17	1.22	4.3	4.003	Nichrome A
32E1L-2S	0.16	3.2	4.1	10.498	KP	20E1H-2S	0.26	2	6.5	6.562	Nichrome R	10E1H-1S	0.17	1	4.3	3.281	KP
27E1L-2S	0.16	2.7	4.1	8.858	KP	14E1H-2S	0.26	1.4	6.5	4.593	Constantan	85E2H-1S	0.17	0.85	4.3	2.789	KP
25E1L-2S	0.16	2.5	4.1	8.202	Constantan	10E1H-2S	0.26	1	6.5	3.281	KP	70E2H-1S	0.17	0.7	4.3	2.297	Constantan
20E1L-2S	0.16	2	4.1	6.562	Constantan	70E2H-2S	0.27	0.7	6.7	2.297	Constantan	50E2H-1S	0.17	0.5	4.3	1.640	Constantan
17E1L-2S	0.16	1.7	4.1	5.577	Constantan	50E2H-2S	0.28	0.5	7.1	1.640	Constantan	38E2H-1S	0.17	0.38	4.3	1.247	Constantan
14E1L-2S	0.16	1.4	4.1	4.593	Constantan	30E2H-2S	0.3	0.3	7.6	0.984	Constantan	30E2H-1S	0.17	0.3	4.3	0.984	Constantan
10E1L-2S	0.17	1	4.2	3.281	Constantan	23E2H-2S	0.28	0.23	6.9	0.755	Alloy 90	25E2H-1S	0.17	0.25	4.3	0.820	Constantan
70E2L-2S	0.18	0.7	4.3	2.297	Constantan	20E2H-2S	0.26	0.2	6.5	0.656	Alloy 90	20E2H-1S	0.18	0.2	4.4	0.656	Constantan
50E2L-2S	0.19	0.5	4.8	1.640	Alloy 60	15E2H-2S	0.27	0.15	6.7	0.492	Alloy 90	17E2H-1S	0.18	0.17	4.3	0.558	Constantan
30E2L-2S	0.17	0.3	4.3	0.984	Alloy 60	10E2H-2S	0.28	0.1	7.1	0.328	Alloy 60	15E2H-1S	0.17	0.15	4.3	0.492	Alloy 60
25E2L-2S	0.17	0.25	4.3	0.820	Alloy 60	70E3H-2S	0.3	0.07	7.5	0.230	Alloy 60	12E2H-1S	0.17	0.12	4.3	0.394	Alloy 60
20E2L-2S	0.17	0.2	4.3	0.656	Alloy 60	50E3H-2S	0.31	0.05	7.9	0.164	Alloy 60	10E2H-1S	0.17	0.1	4.3	0.328	Alloy 60
15E2L-2S	0.18	0.15	4.4	0.492	Alloy 60	40E3H-2S	0.33	0.04	8.3	0.131	Alloy 60	80E3H-1S	0.17	0.08	4.3	0.262	Alloy 60
10E2L-2S	0.19	0.1	4.8	0.328	Alloy 30	30E3H-2S	0.35	0.03	8.8	0.098	Alloy 60	70E3H-1S	0.17	0.07	4.3	0.230	Alloy 60
70E3L-2S	0.21	0.07	5.2	0.230	Alloy 30	20E3H-2S	0.27	0.02	6.9	0.066	Copper	60E3H-1S	0.17	0.06	4.3	0.197	Alloy 60
50E3L-2S	0.23	0.05	5.7	0.164	Alloy 30	16E3H-2S	0.28	0.016	7.1	0.052	Copper	40E3H-1S	0.18	0.04	4.4	0.131	Alloy 60
-	-	-	-	-	-	13E3H-2S	0.29	0.013	7.4	0.043	Copper	30E3H-1S	0.19	0.03	4.7	0.098	Alloy 60
-	-	-	-	-	-	10E3H-2S	0.3	0.01	7.6	0.033	Copper	20E3H-1S	0.2	0.02	5.1	0.066	Alloy 60
-	-	-	-	-	-	-	-	-	-	-	-	10E3H-1S	0.17	0.01	4.3	0.033	Copper
-	-	-	-	-	-	-	-	-	-	-	-	65E4H-1S	0.18	0.0065	4.3	0.021	Copper
-	-	-	-	-	-	-	-	-	-	-	-	40E4H-1S	0.19	0.0041	4.8	0.013	Copper

Made to order product, standard production lead time of 6 weeks, please contact factory for design and quote.

## Cold Lead Sizes

Double Conductor					Single Conductor				
Size	Max. Current (A)		Gland Diameter (NPT)		Size	Max. Current (A)		Gland Diameter (NPT)	
AWG	CEC	NEC	CEC	NEC	AWG	CEC	NEC	CEC	NEC
14	15	25			14	20	30		
12	20	30	1/2"	1/2"	12	25	40	1/2"	1/2"
10	30	40	(12.7 mm)	(12.7 mm)	10	40	55	(12.7 mm)	(12.7 mm)
8	50	55			8	70	75		

## Configurations

<b>Design B</b>	Single conductor cold lead M.I. Heater with clean laser hot to cold on both ends.
<b>Design D</b>	Two conductor cold lead M.I. Heater with clean laser seal hot to cold on one end. Clean laser seal hot to hot at opposite ends.
<b>Design E</b>	Two conductor cold lead M.I. Heater with clean laser seal hot to cold on both ends.

**Codification**  
**B/30E3H-1S/400/1200/120/6/14-1-H/L**

Design  
 Product #  
 Total heated length  
 Total output (Watts)  
 Voltage  
 Cold lead length  
 AWG  
 Number of conductors  
 H indicates 600V / L indicates 300V

