

# ELKM-AG

## FLUOROPOLYMER-INSULATED SERIES RESISTANCE HEATING CABLE



### Construction

1. Stranded or spirally wound heating conductor
2. Fluoropolymer insulation
3. Nickel-plated copper protective braid
4. Fluoropolymer outer jacket

A fluoropolymer protective outer jacket is recommended for harsh environments involving organic chemicals or corrosives.

### Product Overview

Polymer-insulated trace heating offers the most reliable and flexible means of providing freeze protection and temperature maintenance in highly corrosive environments and high-temperature applications. Eltherm's ELKM-AG series heating cables offer a range of unique features, including Class I, Division 2 and Class I Division 1 hazardous area approvals.

### Application

- Product line heat tracing (crude oil, natural gas, caustic soda, wastewater and product transfer lines), tank and vessel heat tracing, pipe/valve/pump heating, tank container heating, IBCs, storage facility heating, viscosity control and instrumentation heat tracing
- Area classification: approved for all environments
- NA: Normal environment
- NB: Class I, Division 2
- NC: Class I, Division 1
- For hazardous-area applications, please refer to the Options table to select the proper termination kit
- Wet rated, for outdoor use (WS)
- UV rated

### Features

#### Nominal voltage

- 0-750V, AC and DC voltages applicable

#### Power output, max.

- 30W/m.

*Note: The output per unit length of the heating cable and the maximum possible operating temperatures depend on the respective application. Please contact the factory for application specific requirements and calculations.*

#### Max operating temp.

- 250°C (482°F)

#### Min. installation temp.

- -60°C (-76°F)

#### Min. bending radius

- 0.4in. (10mm)

### Ratings

#### Classification

- ELKM-AG-NA:
  - Industrial and commercial applications, Canada USA
- ELKM-AG-NB:
  - Class I Division 2 Group A, B, C, D
  - Class II Division 1 Group E, F, G
  - Class III Division 1
  - Class I Zone 1 AEx de IIC T6...T2 / Ex de IIC T6...T2 Gb
- ELKM-AG-NC:
  - Class I Division 1 Group A, B, C, D

#### Standards

- FM16NUS0004



- FM16US0124X
- FM16NC0003
- FM16CA0069X

### Certification

- IEC/IEEE 60070-30-1, IEEE 515
- CSA 22.2 130-16



### Cable Specifications

Nominal resistance ( $\Omega$ /ft.)	Outer diameter approx.		Weight approx. lb/ft.	Temperature coefficient ( $\times 10^{-3}$ / K)
	in.	mm		
0.0036 (Cu 1.5 mm <sup>2</sup> )	0.23	5.9	0.0511	4.30
0.0152	0.21	5.4	0.0461	1.60
0.0198	0.22	5.5	0.0429	1.60
0.0244	0.23	5.9	0.0491	0.90
0.0305	0.22	5.7	0.0461	0.90
0.0479	0.22	5.7	0.0459	0.45
0.0549	0.21	5.4	0.0404	0.90
0.0610	0.22	5.5	0.0429	0.45
0.0792	0.21	5.4	0.0408	0.45
0.0853	0.21	5.3	0.0388	0.38
0.1036	0.21	5.3	0.0386	0.45
0.1097	0.20	5.2	0.0382	0.45
0.1311	0.23	5.5	0.0422	0.18
0.1463	0.22	5.4	0.0412	0.18
0.1829	0.21	5.3	0.0394	0.18
0.2438	0.20	5.2	0.0375	0.18
0.3048	0.21	5.3	0.0394	0.04
0.4481	0.20	5.2	0.0370	0.04
0.5334	0.20	5.2	0.0368	0.04
0.5791	0.22	5.4	0.0402	0.40
0.8839	0.20	5.2	0.0374	0.40
1.2192	0.20	5.1	0.0356	0.40
1.4326	0.20	5.0	0.0349	0.15
1.8288	0.20	5.0	0.0343	0.20
2.1336	0.19	5.0	0.0336	0.15
2.4384	0.19	4.9	0.0332	0.15

Weight tolerances are possible for manufacturing reasons.

Resistance tolerance: +/- 5%.

For applications with a fixed external diameter, please contact the factory.

Cables should not intersect or come into contact with each other.

30mA ground fault protection device required for each circuit.

### Made to order, please contact factory for design assistance

ELKM-AG-Nx may be supplied on spools and field terminated provided the following conditions are met:

- Heating circuit design to be carried out or approved by the factory.
- Only Eltherm-supplied and certified termination kits may be used.
- Heating circuit installation and startup to be performed by qualified personnel only.
- Eltherm product and approval markings to be applied to product.

### Product description code (example)

Codification **ELKM-AG-NA-00549**

Product Family \_\_\_\_\_  
 ELKM-AG-NA: Normal Environment  
 ELKM-AG-NB/NC: Hazardous areas  
 Nominal resistance \_\_\_\_\_  
 (without the dot ".")

**Made to order product, to obtain a quote please contact factory.**

### For hazardous area

The ELKM-AG cable series is approved for all environments.

For hazardous-area applications, please refer to the Options table to select the proper termination kit.

**NB:** Class 1, Division 2

**NC:** Class 1, Division 1



### Options

Product #	Environment	Description
EL-HAZELECT-AG	NC	Connection kit 1/2" NPT Class I Div 1 and 2 Group ABCD, Class II Div 1 and 2 Groups EFG, Class III, Class I Zone 1 Group IIC
ELVB-AG-NA-NB-NC	NA/NB/NC	Splice kit for ELKM-AG-NA/NB/NC all environments, pkg of 2
ELVB-NA-38	NA	Cable gland connection kit for ELKM-AG-NA NEC/CEC 3/8" NPT non-hazardous area
ELVB-NA-M12	NA	Cable gland connection kit for ELKM-AG-NA NEC/CEC M12 x 1.5 non-hazardous area
ELVB-NB-12	NB	Cable gland connection kit for ELKM-AG-NB NEC/CEC 1/2" NPT hazardous area
ELVB-NB-M16	NB	Cable gland connection kit for ELKM-AG-NB NEC/CEC M16 x 1.5 hazardous area