

Kerrigan-Lewis™ Specialty Wire



Alpha Wire's Kerrigan-Lewis brand of specialty wire is designed and manufactured to stringent standards of quality and performance. From expertise in fine copper wire and insulations to an exact understanding of your most rigorous application requirements, we can help you increase efficiency, reduce size, and achieve higher levels of productivity.

We offer the lowest minimum order levels in the industry. Save money by ordering only what you need.

Our products are custom configured for specific applications. Call us at 773-772-7208 to discuss your application requirements for Kerrigan-Lewis specialty wire.

Litz wire

Litz wire reduces AC losses in conductors from skin and proximity effects at high frequencies to make transformers and motors more efficient. It consists of individually insulated strands woven or twisted in a specific pattern so that each tends to occupy all possible positions in the cross section. This equalizes flux linkages and reactances so that current is evenly divided among the strands for increased current-carrying efficiency.

Applications

- High-frequency inductors and transformers
- Motors
- Relays
- Inverters
- Power supplies
- Ultrasonic and sonar equipment
- Heat-induction equipment
- High-twist applications, up to 300 turns per foot

Kerrigan-Lewis litz wire is available in a wide range of configurations to meet specific operating frequencies, voltages, and current-carrying capacities. Individual strands range from 50 to 16 AWG, with anywhere from a few strands to thousands in the wire. Besides traditional round conductors, we also offer space-saving square and rectangular cross sections for maximum copper density.

Some popular configurations include:

- 60 strands of 36 AWG
- 100 strands of 38 AWG
- 2100 strands of 36 AWG



	Variations	Advantages
Insulations/Servings	NEMA-approved films	To 105°C, 155°C, 200°C Single and heavy coatings
	Cotton	To 105°C Abrasion resistant
	Nylon	To 130°C Abrasion resistant Good high-frequency properties
	Celanese synthetic yarn	To 105°C Excellent high-frequency properties Chemically soluble
	Nylon/Celanese mix	To 105°C Excellent high-frequency properties Chemically soluble
	Fluorocarbon textile	To 200°C Abrasion resistant Excellent high-frequency properties Excellent handling properties
	Teflon FEP extrusion	To 200°C Waterproof Abrasion resistant Excellent high-frequency properties Excellent handling properties
	PVC	To 105°C
Strand Range	50 to 16 AWG	Flexibility in meeting application goals
Configurations	Round Square Rectangular	Configurable for maximum operating and space efficiencies

Resistance wire

Kerrigan-Lewis resistance wire achieves high-tolerance resistive values with a copper-nickel alloy. Standard configurations are:

- **55% copper/45% nickel for a resistance of 294 ohms per circular mil-foot**
- **78% copper/22% nickel for a resistance of 180 ohms per circular mil-foot**

Other configurations are also available.

We offer the wire in sizes from 40 AWG to 25 AWG to meet specific resistance and current-carrying needs.

The Right Cable . . . Just the Way You Want It



Custom Cable as Custom as Your Application!

Alpha Wire has a long heritage of supplying a wide range of wire, cable, tubing, and accessories for varying applications. We understand that despite the breadth and depth of our product portfolio, sometimes you require a cable as unique as the application. We make it easy to configure a custom cable.

We can also help you fashion the perfect cable to meet application parameters. The Alpha Wire Cable Design Center® allows you to quickly and easily modify any standard Alpha cable specification to your own application requirements. Count on the cable and application experts at Alpha Wire for guidance.

With our quick quotes and fast production turnaround, we will have your custom cable to you in no time.

- Meet special application requirements
- Increase system reliability with application-specific configurations
- Speed installation by reducing the number of different cables needed
- Get the best match of electrical, mechanical, and environmental properties
- Build composite cables with a mixture of conductor sizes, insulations, and shielding
- Spec your design fast with the on-line Cable Design Center
- Receive quotes quickly
- Experience industry-leading turnarounds on custom cables

FIT[®] Heat-Shrink Tubing

