



In-Vacuum Wiring

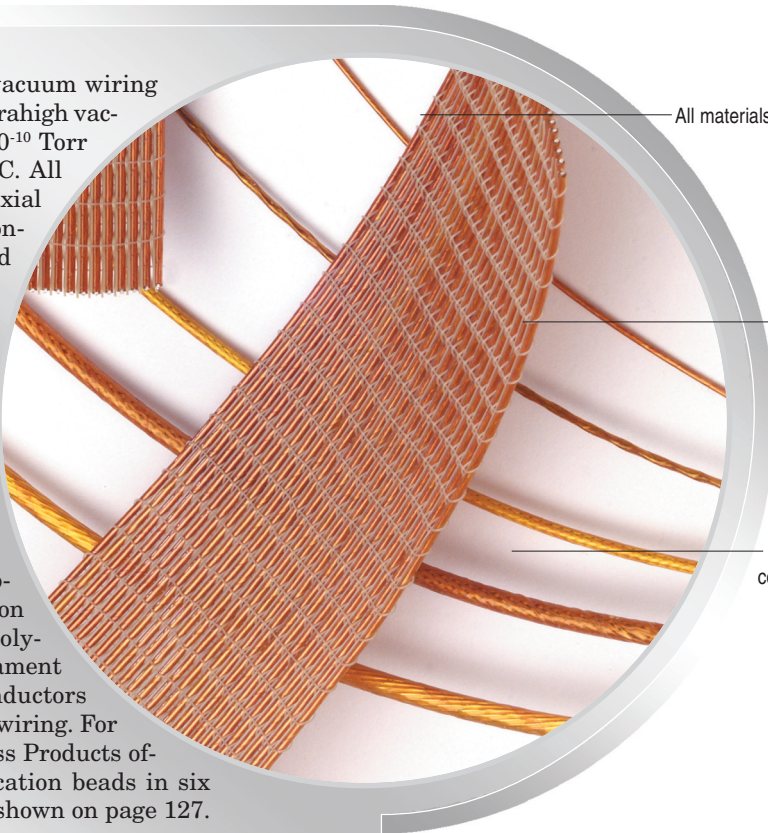
UHV Kapton® Insulated

Vacuum Wire and Accessories

Accu-Glass Products in-vacuum wiring is designed for high and ultrahigh vacuum environments to 1×10^{-10} Torr and are bakeable to 250°C. All conductors and braided coaxial cable shielding are constructed with silver plated copper wire.

Insulation is a high mechanical strength Kapton® Type-F film that is applied and heat treated to minimize trapped gases.

Multiconductor cables are available in either flat ribbon or circular configuration with an outer PEEK (polyetheretherketone) monofilament weave. Circular cable conductors are color-coded for ease of wiring. For non-coded wires, Accu-Glass Products offers colored glass identification beads in six easy to distinguish colors, shown on page 127.



All materials are UHV compatible.

Ribbon cable provides UHV wiring in a compact assembly.

Twenty styles of wire configurations.



Did You Know:

Accu-Glass Products, Inc. is the only supplier to offer and ship Kapton® insulated wire on plastic spools instead of loose in a bag?

Features

- UHV compatible construction
- High temperature rated to 250°C
- Kapton® Type-F insulating film
- Silver plated copper conductors
- Single, multi-strand and coaxial
- Type-K Thermocouple wire

Specifications

Voltage¹	See each table
Current	See each table
Material	
Conductor	Ag-plt Cu
Insulation	Kapton® Type-F film
Kapton® Properties	
Dielectric constant	2.9
Dielectric strength	80kV / mm

Dissipation factor, 1MHz	0.002
Initial tear	13.4kg/mm
Elongation	150%
Moisture absorption	0.4% @ 50% RH
Radiation resistance	10 ⁹ Rads
Vacuum Range	
UHV, Ultrahigh vacuum	1x10 ⁻¹⁰ Torr
Temperature Range²	-75° to 250°C

Notes

- 1 Electrical ratings are maximum test values.
- 2 Overall ratings must be adjusted to that of the lowest rated component.
Thermocouple wire reference data on page 68.
All dimensions are in inches unless specified otherwise.