

Radiation Resistant Kapton® Wires

- Single wires, Coaxial and Thermocouple

Allectra offers special radiation resistant Kapton® insulated wires. Compared to the standard wires, the radiation resistance is increased by a factor of 100. Also the maximum usable temperature is higher and goes up to 300°C.

The following sizes are available:

- Multistrand wire, 0.35mm diameter 311-KAPM-035-RAD
- Multistrand wire, 0.6 mm diameter 311-KAPM-060-RAD
- Multistrand wire, 1.0 mm diameter 311-KAPM-100-RAD
- 50 Ohm Coaxial wire, 311-KAP50-RAD
- Thermocouple Type K, 2x 0.25mm \varnothing , 311-KAP-TCK-RAD

(For thinner wires, the dipped wires 311-KAP-010 to 311-KAP-040 can be used as an alternative with similar specification)



Various radiation resistant UVH cables

Specifications

Construction	Wrapped Wire insulation, Kapton®
Conductor	Silver plated copper, multistrand 0.35mm: 7x 0.12mm \varnothing 0.6mm: 19x 0.1mm \varnothing 1.0mm: 19x 0.2mm \varnothing Coax: 7x 0.15mm \varnothing (inner conductor)
Conductor Thermocouple	Ni-Cr (+) / Ni-Al (-), single wires, 0.25mm \varnothing
Minimum Bend Radius	7.5 x diameter (long term)
Radiation Resistance	10^9 Rad = 10^7 Gy
Voltage Rating	Min. 2KV in vacuum
Test Voltages (in Air) (DC, Test on single item)	311-KAPM-035-RAD: >10KV 311-KAPM-060-RAD: >12KV 311-KAPM-100-RAD: >13KV 311-KAP50-RAD: >15KV
Vacuum	UHV (10^{-10} mbar and better)
Temperature	4K ... 300°C

These cables are offered on spools with 5m / 10m / 50m / 100m or custom lengths.

Allectra can use these cables for cable manufacturing. When used with the ceramic connectors (SMA and Sub-D), the cables become fully radiation resistant.



311-KAPM-060-RAD



50 Ohm Cable 311-KAP50-RAD

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All data given in this sheet is carefully checked but subject to change at any time.