

KAP301 - Radiation Resistant, High Temperature Kapton insulated Wires

With the KAP301 wires, Allectra offers special radiation resistant Kapton insulated wires.

The quality of these KAP301 cables is improved and this quality replace the 311-KAPM-RAD versions.

Available are the following multistrand wire sizes:

0.25mm ø	301-KAPM-025	0.35mm ø	301-KAPM-035
0.6 mm ø	301-KAPM-060	0.75mm ø	301-KAPM-075
1.0 mm ø	301-KAPM-100	1.3mm ø	301-KAPM-130
2.0mm ø	301-KAPM-200		

Coaxial wires

0.25mm ø	301-KAPM-025-COAX	0.6mm ø	301-KAPM-035-COAX
50 Ohm	301-KAP50	50 Ohm	301-KAP50S

- Thermocouple wire Type K

301-KAP-TCK

- Thermocouple wire Type N

301-KAP-TCN



Typical Specifications	KAP 301
Vacuum	UHV (10^{-10} mbar)
Radiation Resistance	10^9 Rad = 10^7 Gy
Temperature Range	4K ... 300°C
Construction	Wrapped Wire insulation, Kapton
Conductors	Silver plated copper, multistrand with 7 or 19 strands Thermocouple wires 0,25mm single strand
Insulation thickness	typ. 0.15mm
Min. Bend radius	7.5 x diameter (long term)
Voltage Rating	7.5KV DC in vacuum
Disruptive Voltage	>14KV DC



301-KAPM-060

For more detailed info, see the separate data sheets for each item.

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

Outgassing of 301-KAPM wires in vacuum

The outgassing of Kapton was tested by many institutes as Kapton / Polyimide is one of the best materials for vacuum and space applications.

In the NASA outgassing lists, many products based on Kapton can be found. The total mass loss is typically 0,9% to 1,1% with condensable material of 0,01%

According data of DuPont, the water absorption in air is 0.2%, the max. possible absorption is 2.9% (stored in water for >24h)