

301-KAPM-060-PAIR2



Radiation resistant twisted pair cable, 2 pairs = 4 conductors, screened with outer insulation, up to 300 °C
This cable is used for signals as well as for in-vacuum stepper motors

Conductor:	Silver plated copper conductor, multi strand
4 conductors 19 x 0.127 mm	24AWG 19/36
Conductor Diameter	0.64 mm
Area	0.24 mm ²
Resistivity @20 °C	79.7 Ohm/km
2x Twisted Pair, one wire of each pair Nr.1 marked with glass yarn	~20 mm lay
Both pairs twisted together with	35 mm lay
Insulation	Kapton
Overall Diameter (cable is not circular due to construction)	3.55 mm max.
Diameter without screen	2.9 mm
Screen: Silver plated copper, coverage	>85%
Voltage rating Due to crosstalk between the pairs, a usage above 4 kV is not recommended	7.5 kV DC (in vacuum)
Disruptive discharge Voltage	>10 kV DC
Min. Temperature	4 K
Max. temperature	300 °C
Radiation resistant up to	1000 Mrad
Weight	~19,2 g/m
Vacuum Level	typ. 10 ⁻¹² mbar is achievable
Capacitance :	
Conductor-Conductor of one pair	~105 pF/m
Conductor-Conductor different pairs	~90 pF/m
Conductor-Screen	~170 pF/m
Impedance	~66 Ohm (calculated value)
Typical values for current per conductor:	
Room Temperature	~ 2.5 A
up to 250 °C	~ 2.3 A
up to 280 °C	~ 1.6 A
up to 290 °C	~ 1.2 A

The maximum current is dependant on the installation,
above values are typical calculated values for single wires, not covered.

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