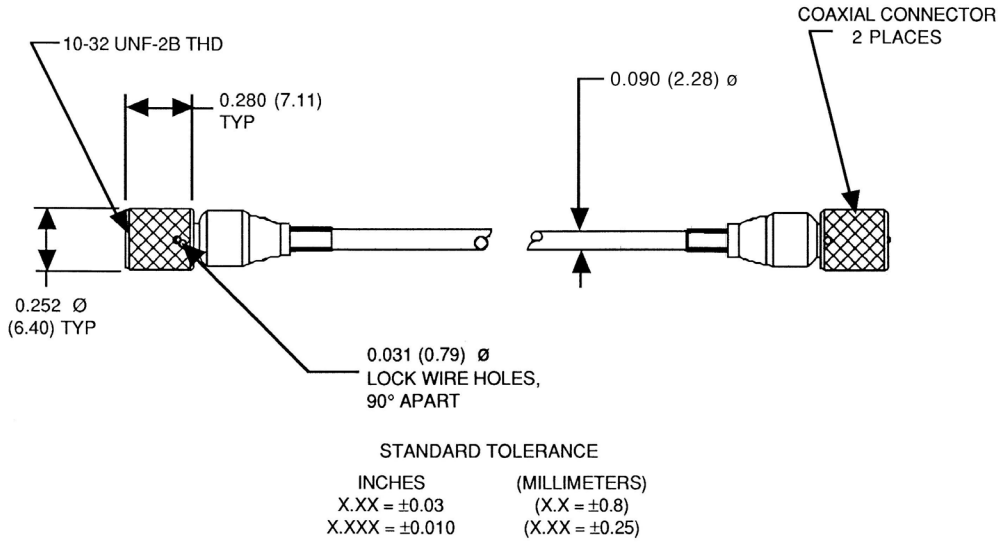
Endevco®

Low-noise cable for use in high radiation environments

Model 3097M1



Key features

- Extruded Tefzel jacket
- Ideal in high radiation environments
- Stainless steel hermetic connectors
- Critical parameters 100% tested

The 3097M1 coaxial cable is a high reliability cable designed for use with charge-mode piezoelectric accelerometers. The Tefzel jacket and dielectric provides for long service life in the presence of high levels of gamma and beta radiation. The insulation can withstand years of operation at high temperatures and features an outstanding resistance to most chemicals and solvents. The highly flexible material provides for ease of installation.

The connector and pin assemblies are made in-house to ensure the highest quality product available and are the only cable of this kind in the industry. All cables are 100% tested for low noise thus making them "true low-noise" cables. The actual cable capacitance is measured and recorded on the package, an important parameter for long cable runs. The hermetic connectors employ a fused glass dielectric for maximum reliability and moisture protection.

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Specifications

All values taken at room temperature, approximately 75°F (24°C).

	Units	3097M1
Connectors		
Connector 1	in (mm)	10-32 NF, plug, 0.252 (6.4)
Connector 2	in (mm)	10-32 NF, plug 0.252 (6.4)
Dielectric material		Glass
Pin material		304L stainless steel
Connector material		304 stainless steel
Strain relief material		Fluorosilicone rubber
Torque (2)	in-lb (Nm)	1.5 (0.17)
Weight	gms	1.65
Lock wire holes		Yes
Cable		
Color (3)		Blue
Outer jacket		Extruded Tefzel
Center conductor		Stranded
Conductor material		Silver plated annealed copperweld
Conductor size	AWG	30
Primary insulation		Tefzel
Cable type		Coaxial
Diameter	in (mm)	0.090 (2.28), max.
Shield material		Silver plated copper
Cable weight	gms/ft.	3.3
Bend radius	in (mm)	0.850 (21.6)
Raw cable part number		30839
Environmental Characteristics		
Radiation, integrated gamma flux	rads	10^8
Maximum continuous operating Temperature	°F (°C)	302 (150)
Pin pullout	lbs (kg)	33 (14.97)
Cable pull strength	lbs (kg)	20 (9.1)
Shock	g peak	10 000, max
Random vibration	g rms	20.7
Sinusoidal vibration	g peak	1000
Electrical		
Noise (1)	pC pk – pk	10
Cable capacitance (1)	pF/ft	30
Insulation resistance (@100 Vdc) (1)	GΩ	›50

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Length tolerance tabulation

Length inches (millimeters)	Tolerance inches (millimeters)
Up to 12 (304.8)	+ 1.0 (25.4)
13 to 36 (330.2 to 914)	+ 2.0 (50.8)
37 to 120 (939.8 to 3.05 meters)	+ 4.0 (101.6)
Over 120 (3.05 meters)	+4 (101.6) per 120 (3.05) or part thereof (+12 (3.05) = maximum tolerance)

Notes

1. These parameters are 100% tested
2. For high g shock and vibration levels the knurled nut should be tightened beyond finger tight and the cable secured down as close to the connector as possible.
3. Small color variations may occur during normal batch processing, but have no impact on product performance.
4. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

Ordering Information:

1. Specify as 3097M1-XXX where XXX= length of cable assembly in inches
2. Standard length in inches is: 120

Contact

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