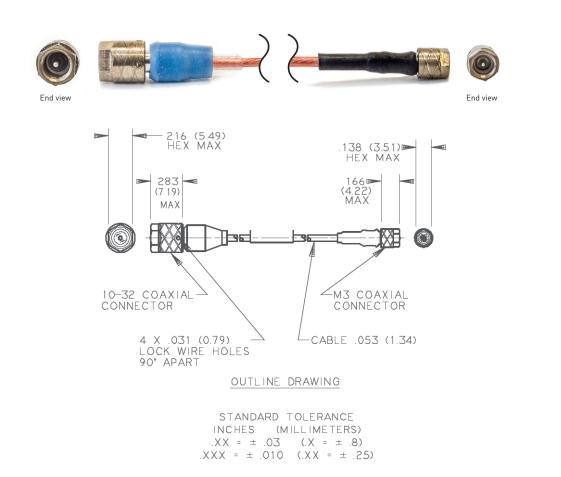


# **Premium low-noise coaxial cable assembly** Model 3053V



The 3053V is a premium low-noise cable for use with charge mode piezoelectric accelerometers with an M3 threaded connector. A 10-32 NF connector is provided at the instrumentation end of the cable. The proprietary cable jacket is made from extruded water resistant PFA Teflon for highest reliability. Additionally, the cable is 20% more flexible than most Teflon cables. All critical parameters are 100% tested including cable capacitance, which is recorded and provided with each cable.

The cable's hermetic connectors are manufactured in-house using a glass fired dielectric insert that provides a hermetic seal, and superior mechanical strength. The connector's unique coupling nut has less friction for easier fastening without galling. The coupling nut is designed for fastening with a wrench while knurled for easy attachment with the fingers. The welded center conductor to pin construction provides low noise, maximum pull-strength and reliability far beyond that of crimped pin construction.

### Key features

- For use with accelerometers with M3 connector
- Critical parameters -100% tested
- Welded center conductor to pin construction
- Fused glass stainless steel housing to center pin
- Wide temperature range
- Extruded outer jacket
- Lightweight, highly flexible

### ENDEVCO www.endevco.com Tel: +1 (866) ENDEVCO [+1 (866) 363-3826]

Piezoelectric accelerometers | Piezoresistive accelerometers | IEPE accelerometers | Variable capacitance accelerometers | Piezoresistive pressure sensors | Piezoelectric pressure sensors | High intensity microphones | Inertial sensors | Signal conditioners and supportive instrumentation | Cable assemblies



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## **Specifications**

The following specifications are typical and taken at approximately 75°F (24°C) unless otherwise noted.

	Units	3053V
Connector		
Connector 1, output end to instrumentation		10-32 NF, 0.252 Dia. Plug
Dielectric material		Glass
Pin material		304L stainless steel
Connector housing material		304 stainless steel
Strain relief material		Fluorosilicone rubber
Torque	In-lbs (Nm)	Finger tight to 1.5 (0.17)
Weight	qms	1.57
Lock wire holes	3	Yes
Connector 2, input end to sensor		M3 X 0.05 plug
Dielectric material		Glass
Pin material		304L stainless steel
Connector housing material		304 stainless steel
Strain relief material, input end		Teflon sleeving
Torque	In-lbs (Nm)	Finger tight to 1.5 (0.17)
Weight	gms	0.43
Lock wire holes		No
Cable		
Color		Translucent red
Outer Jacket		Extruded PFA Teflon
Center conductor		Solid
Conductor material		Silver plated annealed copper weld
Conductor size	AWG	33
Primary Insulation		Teflon, noise treated
Cable type		Coaxial
Diameter	in (mm)	0.053 (1.34)
Shield material		Silver plated copper
Weight	gms/ft (gms/mtr)	1.42 (4.66)
Bend radius	in (mm)	0.50 (12.7)
Raw cable PN		40201
Environmental		
Minimum temperature (3), cable and 10-32 plug	°F (°C)	- 432 (-254)
Maximum temperature (3), cable and 10-32 plug	°F (°C)	500 (260)
Cable pullout 10-32 connector end	lbs (kg)	8 (3.6 )
Cable pullout M3 connector end	lbs (kg)	5 (2.3) min.
Shock	g peak	10,000
Random vibration	g rms	20.7
Sinusoidal vibration (2)	g peak	1,000
Electrical		
Noise (1)	pC pk - pk	1.5
Capacitance (1)	pF/ft	32
Insulation resistance at 100Vdc (1)	GΩ	>50 up to 500 ft.
Accessories supplied		
End wrench		34702
End wrench		40365



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#### Length tolerance tabulation

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

#### Notes

- 1. These parameters are 100% tested.
- 2. For high g shock and vibration the knurled nut should be tightened beyond finger tight and the cable secured down as close to the connector as possible.

#### Ordering Information:

- 1. Specify as 3053V-XXX where XXX = cable length, in inches.
- 2. Standard lengths, in inches, are: 12, 60, 120, 240, 360 and 600.
- 3. 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.

### Contact

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Continued product improvement necessitates that Endevco reserve the right to modify these specifications without notice. Endevco maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. These measures, together with conservative specifications have made the name Endevco synonymous with reliability. 082619