

PERFORMANCE SPECIFICATION  
 4 CONDUCTOR, SILICONE JACKETED CABLE ASSEMBLY  
 3027B-XXX

Document Number	Rev	Date	Entered by	Description of Change	Change Accountable Engineer	ECO
77212	NR	12/15/22	NAD	Initial Release of 4 Conductor, Silicone Jacketed Cable Assembly, 3027B-XXX	DAM	53408

1.0 DESCRIPTION

The ENDEVCO® Model 3027B cable assembly is a four conductor shielded cable designed to operate with low impedance accelerometers. The shield is soldered to connector backshell.

Cable length, in inches, is specified by a model number suffix. A 120 inch cable, Model 3027B-120, is standard. Varied lengths are also available on special order.

All values are typical at +24°C (+75°F).

2.0 ELECTRICAL CHARACTERISTICS

2.1 CAPACITANCE

2.1.1 Conductor to Conductor 16 pF / ft

2.1.2 Each Conductor to Shield 27 pF / ft

2.2 RESISTANCE

2.2.1 Conductor 0.3 Ω / ft

2.2.2 Shield 0.016 Ω / ft

2.2.3 Insulation 1 GΩ minimum @ 100 V

3.0 PHYSICAL CHARACTERISTICS

(See Outline Drawing)

3.1 CABLE

3.1.1 Diameter 0.105 inch maximum

3.1.2 Linear Mass 4.5 grams / foot

3.1.3 Bend Radius 0.5 inch maximum

3.1.4	Conductor	
3.1.4.1	Size	32 AWG
3.1.41.1	Strands	
3.1.4.1.2	Number	7
3.1.4.1.3	Size	40 AWG
3.1.4.1.4	Material	SPC (Silver Plated Copper)
3.1.5	Primary Insulation	
3.1.5.1	Material	Teflon, type ET, KT or PFA
3.1.5.2	Etch	Medium etched, except PFA
3.1.5.3	Colors	Red, White, Black, Green
3.1.6	Shield	
3.1.6.1	Size	40 AWG
3.1.6.2	Material	TPC (Tin Plated Copper)
3.1.6.3	Coverage	90% Minimum
3.1.7	Jacket	
3.1.7.1	Material	Silicone Rubber
3.1.7.2	Color	White
3.2	PLUG	
3.2.1	Captive Contacts	Contacts captivated from movement in both directions
3.2.2	Cable Retention	Separation force equal to breaking strength of shield
3.2.3	Shell	
3.2.3.1	Thread Type	1/4-28 UNF-2B
3.2.3.2	Material	Brass C36000
3.2.3.3	Plating	Gold plate per MIL-G-45204, Type II, Grade C, Class I
3.2.4	Front and Rear Insulators	Valox DR51 Black
3.2.5	Boot	

3.2.5.1 Material Black FKM Heat Shrink

4.0 **ENVIRONMENTAL CHARACTERISTICS**

4.1 OPERATING TEMPERATURE RANGE -100°C to +125°C (-148 °F to 257°F)