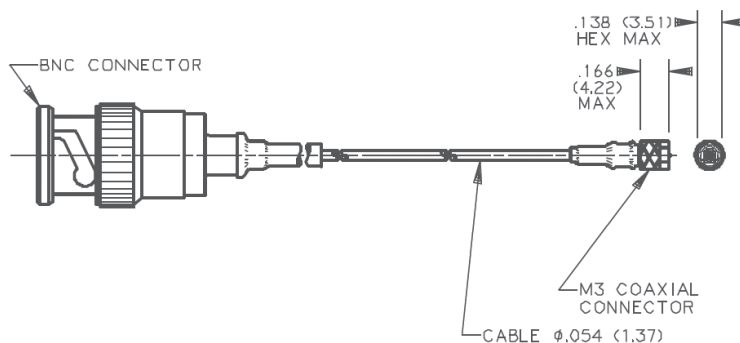


# Premium low-noise coaxial cable assembly

## Model 3053VM1 VersaFLEX



OUTLINE DRAWING

STANDARD TOLERANCE  
 INCHES (MILLIMETERS)  
 .XX =  $\pm$  .03 (.X =  $\pm$  .8)  
 .XXX =  $\pm$  .010 (.XX =  $\pm$  .25)

The 3053VM1 is a premium low-noise cable for use with charge mode piezoelectric accelerometers that utilize an M3 threaded connector and a BNC connector at the instrumentation end. The proprietary cable jacket is made from extruded water resistant PFE Teflon for highest reliability. Additionally, the cable is 20% more flexible than most Teflon® jacketed cables.

The raw cable, M3 connector and pin assemblies, are made in-house to ensure the highest quality product available, making this a cable that is unique to the industry. These cables are 100% tested for insulation resistance, capacitance and triboelectric noise. The M3 connector's glass dielectric provides a reliable hermetic seal for operation in humid atmospheres.

### Key features

- For use with accelerometers having M3 connectors
- 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, flexible

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### Specifications

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

| Characteristics                     | Units      | 3053VM1                               |
|-------------------------------------|------------|---------------------------------------|
| Connector 1 (accelerometer end)     |            | M3 X 0.05                             |
| Dielectric material                 |            | Glass                                 |
| Pin material                        |            | 304L stainless steel                  |
| Connector housing material          |            | 304 stainless steel                   |
| Coupling nut material               |            | High strength bronze alloy            |
| Strain relief material              |            | Teflon® sleeving                      |
| Torque                              | lb-in (Nm) | Finger tight to 1.5 (0.17)            |
| Lock wire holes                     |            | Yes                                   |
| Weight                              | gm         | 0.43                                  |
| Connector 2 (instrumentation end)   |            | BNC male plug                         |
| <b>Cable</b>                        |            |                                       |
| Color (2)                           |            | Translucent red                       |
| Outer Jacket                        |            | Extruded PFA Teflon®                  |
| Center conductor                    |            | Solid                                 |
| Conductor material                  |            | Silver plated annealed copper weld    |
| Conductor size                      | AWG        | 33                                    |
| Primary Insulation                  |            | PTFE Teflon®, noise treated           |
| Cable type                          |            | Coaxial                               |
| Diameter                            | in (mm)    | 0.054 (1.37)                          |
| Shield material                     |            | Silver plated copper                  |
| Weight                              |            | 3.11 lb/1000 ft (1.42kgm /305 meters) |
| Bend Radius                         | in (mm)    | 0.50 (12.7)                           |
| Raw cable part number               |            | 40201                                 |
| <b>Environmental</b>                |            |                                       |
| Minimum temperature, M3 connector   | °F (°C)    | -432 (-254)                           |
| Maximum temperature, M3 connector   | °F (°C)    | 500 (260)                             |
| Minimum temperature, BNC connector  | °F (°C)    | -67 (-55)                             |
| Maximum temperature, BNC connector  | °F (°C)    | 392 (200)                             |
| Minimum temperature, raw cable      | °F (°C)    | -148 (-100)                           |
| Maximum temperature, raw cable      | °F (°C)    | 500 (260)                             |
| Cable pullout M3 connector end      | lbs (kg)   | 5 (2.3 ) min.                         |
| Pin pull out                        | lbs (kg)   | 33 (15)                               |
| Shock                               | g pk       | 10,000                                |
| Random vibration                    | g rms      | 20.7                                  |
| Sinusoidal vibration                | g pk       | 1,000                                 |
| <b>Electrical</b>                   |            |                                       |
| Noise (1)                           | pC pk - pk | 1.5                                   |
| Capacitance (1)                     | pF/ft      | 32                                    |
| Insulation resistance at 100Vdc (1) | GΩ         | >50 up to 500 ft.                     |

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## Model 3053VM1 VersaFLEX

### Accessories

| Product | Description | 3053VM1  |
|---------|-------------|----------|
| 40365   | End Wrench  | Included |

### 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. Small color variations may occur during normal batch processing, but have no impact on product performance.

### Ordering Information

1. Specify as 3053VM1-XXX where XXX = cable length, in inches.
2. Standard lengths, in inches, are: 120, 240, 360 and 600.
3. Maintain high levels of precision and accuracy using Endeveco's factory calibration services. Call Endeveco'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

#### ENDEVCO

www.endevco.com

Tel: +1 (866) ENDEVCO

[+1 (866) 363-3826]