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## High-Voltage Triaxial Panel-Mount Cable

### Description

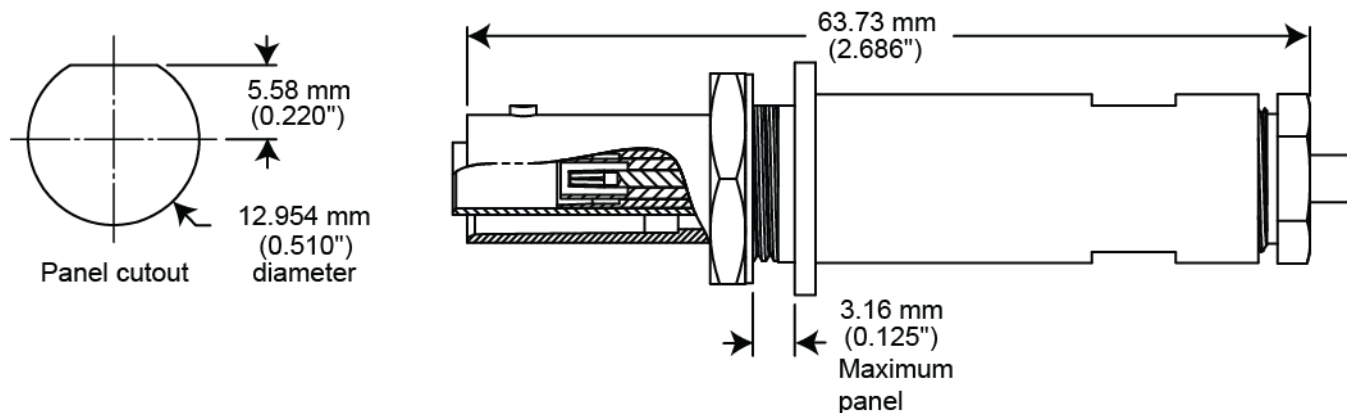
The Model HV-CA-571-3 is a 3.1 m (10 ft.) long triaxial cable that is terminated with a high-voltage triaxial panel-mount connector on one end. The other end is unterminated. The cable is intended for use in a safe enclosure, such as a test fixture. Refer to the manuals for the Model 2657A High Power System SourceMeter® Instrument for examples that show how to use this cable.

**Figure 1: Model HV-CA-571-3**



### Mechanical characteristics (connector only)

**Figure 2: Feedthrough Connector**



## Electrical characteristics

- Leakage current:
  - Center to guard:  $<100 \times 10^{-12}$  A at 3000 V (see NOTE below)
  - Guard to shield:  $<100 \times 10^{-9}$  A at 3000 V
- Working voltage: 3300 V
- Dielectric breakdown voltage:
  - Center/guard to shield: 5250 V
- Mates with HV-CA-554 or SHV-CA-553

### NOTE

For the Model 2657A System SourceMeter® Instrument, the voltage between the Guard and HI (inner shield and center conductor) is typically less than 1 V under steady-state conditions, resulting in a much lower leakage current between the inner shield of the cable and the center conductor.

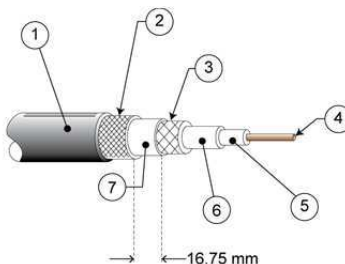
## High-voltage triaxial cable termination

### ⚠ WARNING

**Removing the protective termination of the cable may expose the user to hazardous voltages that may cause personal injury or death. Ensure that proper safety spacings are used when reinstalling termination to the cable.**

When terminating the end of the high-voltage (HV) triaxial cable, use the following voltage spacings.

**Figure 3: High-voltage triaxial cable termination**



Item	Description	Notes
1	Outer jacket	
2	Outer shield	
3	Inner shield	Spacing between the inner shield and any user accessible circuit: 33.5 mm; spacing between the inner shield and a metal enclosure (if used): 16.75 mm
4	Center conductor	Spacing between the center conductor and any user accessible circuit: 33.5 mm; spacing between the center conductor and a metal enclosure (if used): 16.75 mm
5	First dielectric material	
6	Second dielectric material	
7	Inner jacket	With wrapped tape barrier. Minimum spacing between inner and outer shield: 16.75 mm