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High-Voltage Triaxial to SHV Cable

Description

The Model SHV-CA-553 is a high-voltage triaxial cable assembly. This cable assembly is terminated on one end with a male safe high-voltage (SHV) connector. The other end is terminated with a male high-voltage (HV) triaxial connector.

Figure 1: Model SHV-CA-553



You can order the cable in three different lengths (see table below).

Model number	Cable length
SHV-CA-553-1	3.3 ft (1.0 m)
SHV-CA-553-2	6.6 ft (2.0 m)
SHV-CA-553-3	9.8 ft (3.0 m)

You can use this cable assembly with the Keithley Instruments Model HV-CS-1613 High-Voltage Triaxial Feedthrough Connector, the HV-CA-571-3 High-Voltage Triaxial Panel-Mount Cable, or instruments and accessories with female high-voltage triaxial connectors.

The inner shield of the HV triaxial is not connected to the SHV end. This may impact source and measurement settling time and low-current measurement performance.

NOTE

On the Model 2657A, be aware that when you connect to the SLO / LO triaxial terminal on the rear panel, the LO terminal is the inner shield. Therefore, the LO terminal is not connected to the SHV end of the Model SHV-CA-553 cable assembly. Use the LO triaxial terminal on the rear panel of the Model 2657A to access Output LO.



WARNING

If you need to convert from safe high-voltage (SHV) to another connector type, be sure to only adapt SHV connectors to connectors that are rated to the maximum possible voltage in your test setup. If you use adapters that are not rated to the maximum possible voltage in your test setup, electric shock may result.

Electrical characteristics

- Rated voltage: 3300 V
- Rated amperage: 2.0 A
- Leakage current:
 - Center to guard: $< 150 \times 10^{-12}$ A at 3000 V (see NOTE below)
 - Guard to shield: $< 150 \times 10^{-9}$ A at 3000 V
- Full continuity:
 - Center <--> Center
 - Guard <--> Open (SHV end)
 - Shield <--> Shield
- Dielectric breakdown voltage:
 - Center/guard to shield: 5250 V

NOTE

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