



XLCG 30kV High Voltage Connectors



Specification Summary

Capable of supporting voltages of up to 30kV, the Genvolt type "XLCG" high voltage connector is a robust, economical, moulded design intended for general-purpose applications where cost is a major consideration. The connector will accept TV-type cable rated up to 50kV. This is red, UL3239-style wire available from Genvolt in 20, 30, 40 and 50kV ratings. Genvolt recommend the 40kV version.

Connectors are normally supplied as cable assemblies with default cable length of 1.5 meters or to customer specifications. Unwired connectors and other replacement parts are also available upon request.

Below is the information of the cable that Genvolt supplies.

Type	Rated Voltage	Size (AWG)	External Diameter (mm)	Wire Gauge	Insulator Material
TV-20	20kV	22	3.15	7/0.25	Polyethylene
TV-30	30kV	22	3.50	7/0.25	Polyethylene
TV-40	40kV	22	4.15	7/0.25	Polyethylene
TV-50	50kV	22	5.00	7/0.25	Polyethylene

Materials

Connector receptacle	Flame-retardant Polypropylene
Connector plug	Flame-retardant Polypropylene
Contact	Brass/Gold plated Phosphor bronze
Cap	Flame-retardant Polypropylene

Mechanical details

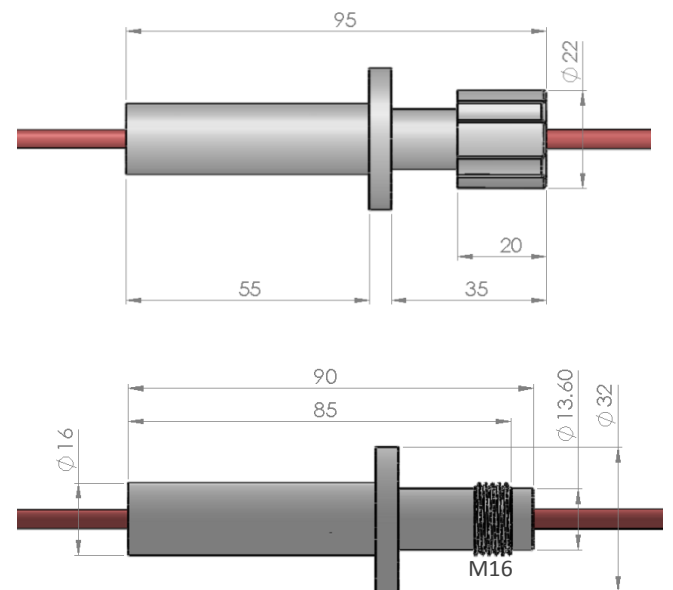
Temperature rating	Up to 60°C
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Regulatory approvals

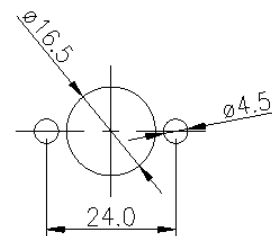
Compliant to EMC Directive 2004/108/EC and UL 746 Test Standard.

Dimensions

Contact size: 4mm



Panel cut-out



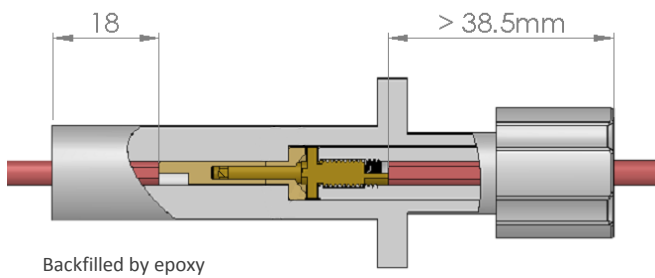


Applications information

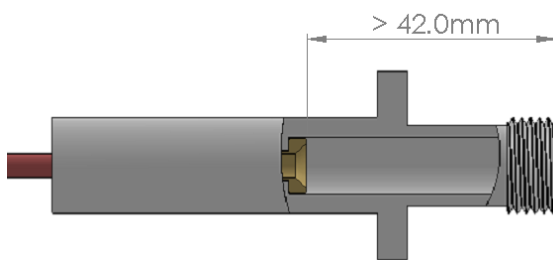
The tracking distance from internal terminal to external:

- Assembled connector: approx. 38mm to cap end
- Assembled connector: approx. 18mm to epoxy end (cable backfilled in epoxy)
- Receptacle only: approx. 42mm

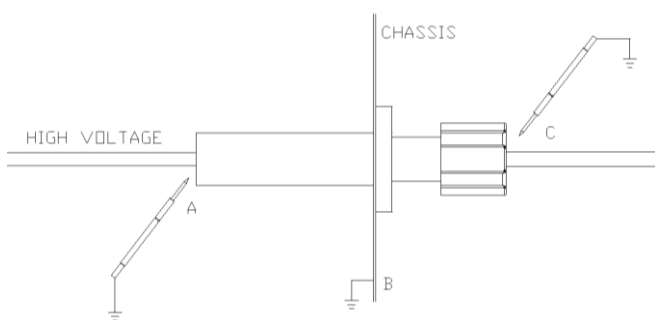
Connector assembled



Receptacle only



For assembled connector, the typical breakdown voltage in dry air at sea level is shown below:



Position	Breakdown voltage ratings
A: Earthed probe to HV	> 40kV
B: Chassis to HV	> 50kV
C: Earthed probe to HV (Cap end)	> 30kV

The connector is rated according to the breakdown voltages shown above. Users are responsible for ensuring the connector is adequate for their purpose and will be operated in a safe manner.