

- **Connectors:** SHV / Straight Female Crimp Type Cable 5/50s
- **Cable:** Q0CL6DQ2 - 6.0 kV
- **High Voltage up to** 6kVDC
- **Cable stranding:** 7x0.3mm
- **Cable diameter:** 5.2 mm
- **Cable color:** Red
- **Length:** 25 cm, 1, 2, 5, 10, 15, 25, 50 m



This high-voltage cable is engineered for applications requiring up to 6 kVDC, ensuring maximum reliability and safety. It features SHV connectors with straight female crimp type terminations and uses a Q0CL6DQ2 cable rated for 6.0 kV. The conductor is composed of seven strands of 0.3 mm wire, providing flexibility and durability. The insulation is made of XLPE with a thickness of 3 mm, surrounded by a tinned copper braid shield for superior electromagnetic protection. Over the shield, a flame-retardant barrier adds an extra layer of safety, and the assembly is finished with a robust red outer jacket for easy identification.

With an overall diameter of 5.2 mm, this cable is available in lengths of 25 cm, 1, 2, 5, 10, 15, 25, and 50 meters, making it ideal for scientific instrumentation, laboratory equipment, and any system requiring secure high-voltage connections.

Cable Specification

Conductor

Material	Tin-coated copper
Stranding	7 x 0.30 mm nom.
Cross section	0.50 mm ² nom.
Diameter	0.90 mm nom.

Insulation

Material	XLPE
Diameter	3.0 mm nom.
Color	Natural

Shield

Type	Tin-coated copper strands braid
Strands diameter	0.13 mm nom.
Coverage	85% nom.

Flame retardant barrier

Type	Helically tape of aluminum/polyester/ aluminum
Thickness	0.12 mm nom.
Overlap	20% min.

Jacket

Material	Extruded polyolefin M1 type
Color	Red

Finished cable

Diameter	5.20 mm ± 0.10 mm
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Electrical Characteristics

Dielectric Strength	10000 V d.c. (5000 V a.c.) conductor/shield
Characteristics impedance	50 Ω ± 2 Ω Impedance (<i>calculated through the capacitance and the inductance measurement</i>)
Capacitance:	100 pF/m nom.
Conductors DC resistance	<40 Ω/km (at 20°C)
Shield DC resistance	<15 Ω/km (at 20°C)
Voltage rating:	6000 V d.c.
Breakdown voltage	20000 V d.c. (10000 V a.c.) conductor/shield

Environmental

Temperature rating	-25°C ÷ 90°C
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Connector Specification

Component References

Manufacturer	Radiall
Part Number	R317072000
Series	SHV
Description	Straight Female Crimp Type Cable 5/50s

Connector Features

Connector Type	Plug
Cable Attachment	Crimp Type
Mating System	Bayonet
Gender	Female
Specific Feature	High Voltage
Geometry	Straight

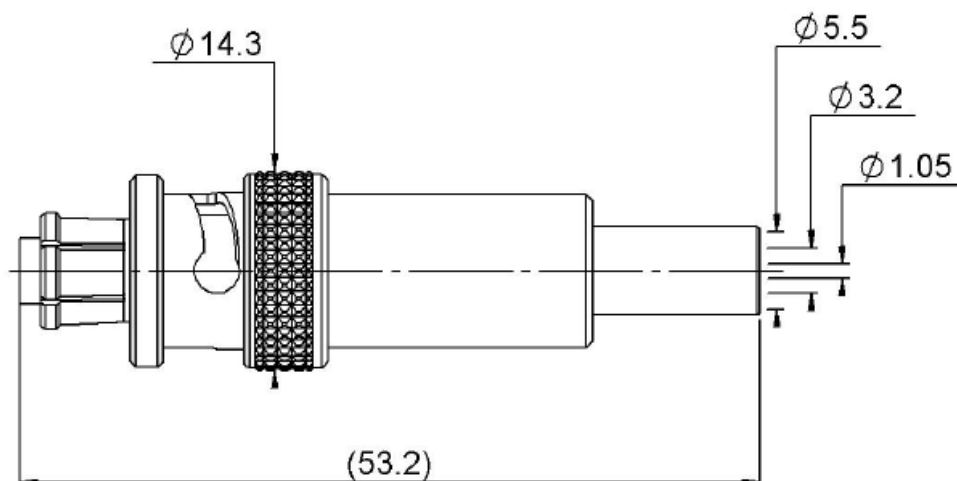
Electrical Characteristics

Impedance	50 Ω
Frequency	0 ÷ 2 GHz
Voltage rating	6000 V eff (dc) / 3500 V rms (ac)

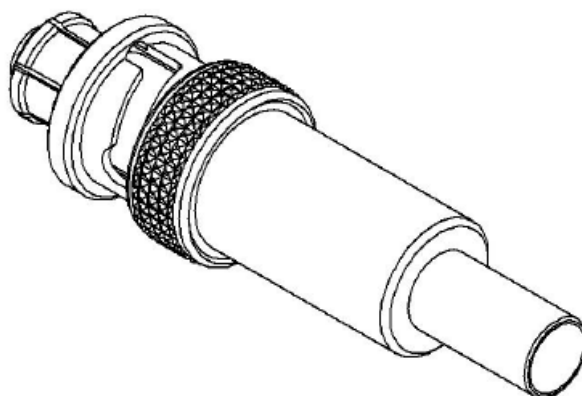
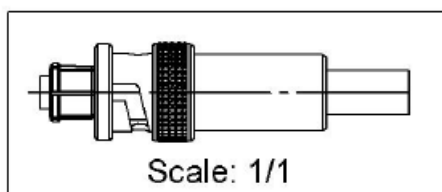
Environmental

Operating Temp.	-65°C ÷ 165°C
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Connector Mechanical Dimension



All dimensions are in mm. Tolerances according ISO 2768 m-H



Components

Body
Center Contact
Outer Contact
Insulator
Gasket
Other parts

Materials

Brass
Beryllium Copper
Beryllium Copper
PTFE
Silicone Rubber
Brass

Plating

Nickel
Gold over Nickel
Nickel

Nickel

Ordering Option

Ordering code	Description
WAC602S0S.25	AC602S0S.25 - SHV to SHV 6kV cable, 25cm
WAC602S0S001	AC602S0S001 - SHV to SHV 6kV cable, 1mt
WAC602S0S002	AC602S0S002 - SHV to SHV 6kV cable, 2mt
WAC602S0S005	AC602S0S005 - SHV to SHV 6kV cable, 5mt
WAC602S0S010	AC602S0S010 - SHV to SHV 6kV cable, 10mt
WAC602S0S015	AC602S0S015 - SHV to SHV 6kV cable, 15mt
WAC602S0S025	AC602S0S025 - SHV to SHV 6kV cable, 25mt
WAC602S0S050	AC602S0S050 - SHV to SHV 6kV cable, 50mt

