

- 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 <sup>2</sup> 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

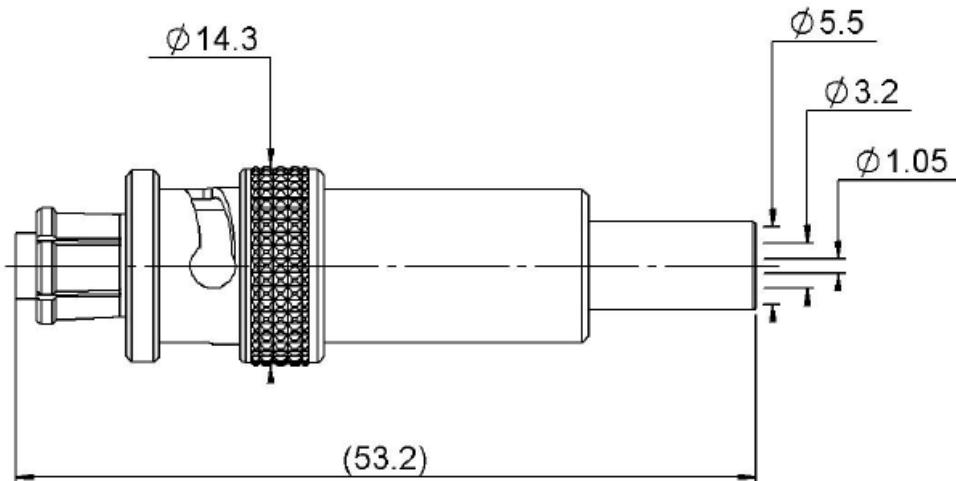
### Electrical Characteristics

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

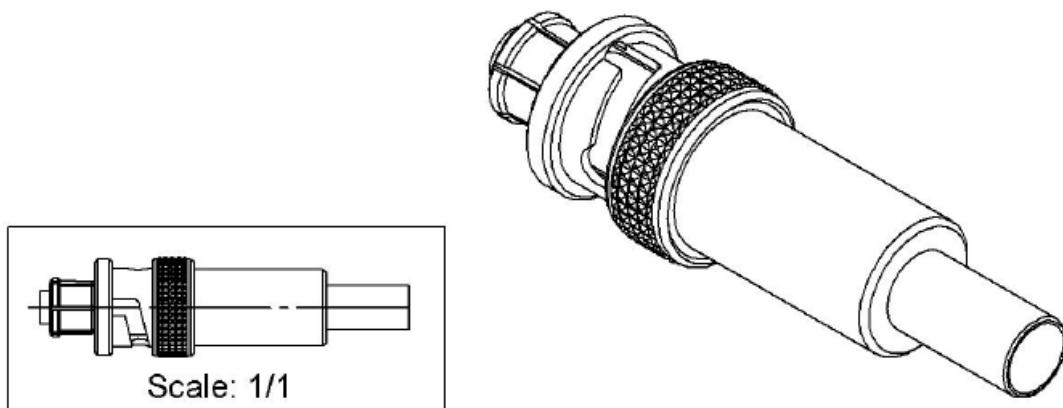
### Environmental

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

