

2170007	DATA SHEET	
valid from: 2026-06-10	RG-223 /U	

Application

RG-223 /U are coaxial cables for radio and computer systems, as well as applications related to commercial radio-frequency (high frequency) technology and electronics.

They allow distortion-free and low-attenuation transmission of signals with a high bandwidth over shorter distances and were designed for operating frequencies up to 12.4 GHz.

The cable is intended for limited movements and for fixed installation in dry and damp interiors and outdoors. It meets the requirements concerning high ambient temperatures and chemical stress.

Design

Design

Cable design and electrical properties of M17/84-RG223 to MIL-C-17.

Designation in accordance with MIL-DTL-17 H: M17/194-00001

Conductor

Inner conductor:

Solid silver plated copper wire

Ø: 0.89 ± 0.025 mm (0.64 mm²)

Insulation

PE, 2.95 mm Ø

Screen

Outer conductor:

two braids of silvered copper wires (double screened)

coverage each: 95 % (nominal value)

Outer sheath

PVC, black

Outer diameter: 5.4 ± 0.1 mm

Electrical properties at 20 °C

Conductor resistance

Inner conductor: max. 29.4 Ω/km

Insulation resistance

min. 5 GΩ x km

Mutual capacitance

max. 101 pF/m (1 kHz)

Characteristic impedance

50 ± 2 Ω

Attenuation

max. 20 dB/100 m (200 MHz)

max. 29 dB/100 m (400 MHz)

max. 48 dB/100 m (1000 MHz)

max. 100 dB/100 m (3000 MHz)

max. 180 dB/100 m (5000 MHz)

max. 302 dB/100 m (12400 MHz)

Velocity of propagation

0.66 c

Maximum operating voltage

max. 1.9 kV (HF voltage)

Nominal voltage

max. 1.4 kV (RMS)

Test voltage

5 kV

Mechanical and thermal properties

Minimum bending radius

fixed installation: 6x outer diameter

occasional flexing: 10x outer diameter

Temperature range

fixed installation: -40 °C up to 80 °C

Flammability

flame retardant acc. to IEC 60332-1-2 resp. EN 60322-1-2

General requirements

This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Environmental information

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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