2170000	DATA SHEET	LAPP
valid from: 30.04.2020	RG-58 C/U	

Application

RG-58 C/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 frequencys up to 1 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 M17/28-RG058 to MIL-C-17. Designation in accordance with MIL-DTL-17 H: M17/183-00001
Conductor	Inner conductor: stranded tinned copper wires 19x0.182 (0.5 mm²) Ø: 0.90 ± 0.051 mm
Insulation	PE, 2.95 mm Ø
Screen	Outer conductor: braid of tinned copper wires coverage 94 % (nominal value)
Outer sheath	PVC, black Outer diameter: 4.95 ± 0.12 mm

Electrical properties at 20°C

Conductor resistance	Inner conductor: max. 40.7 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	max. 101 pF/m (1 kHz)
Characteristic impedance	50 ± 2 Ω
Attenuation	max. 24 dB/100 m (200 MHz) max. 33 dB/100 m (400 MHz) max. 55 dB/100 m (1000 MHz)
Velocity of propagation	0,66 c
Peak operating voltage	max. 1.9 kV (HF voltage)
Rated voltage	max. 1,4 kV (RMS)
Test voltage	5 kV

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 10 x cable Ø fixed installation: 6 x cable Ø
Temperature range	fixed installation: -40˚C up to 80˚C
Flammability	flame retardant acc. to IEC 60332-1-2
General requirements	This cable is conform to the 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).