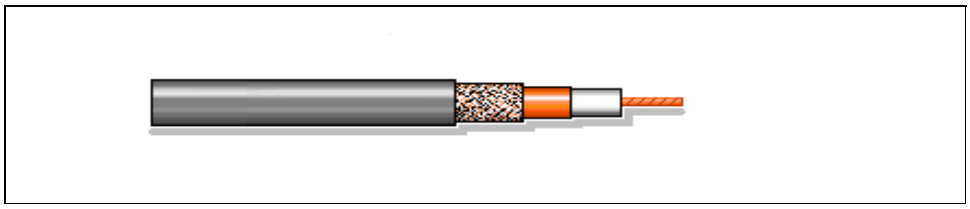
RF-5 FLEXIBLE LOW LOSS 50 Ω COAXIAL CABLE



Application

The radio-frequency cables described in this chapter are used in transmitter and receiver installations in radio communications as well as in the entire field of commercial radio-frequency technology and electronics.

Construction

according to EN 50117, DIN 47264, IEC 61196-1

Cable layout

Inner conductor	stranded bare copper wires, 7 x 0.45 mm; diameter 1.35 mm ± 0.01 mm
Insulation	gas injected foam PE, natural colour, diameter 3.60 ± 0.05 mm
Outer conductor	Cu-Al-PET foil, longitudinal, under CuCA braid, optical coverage 80%
Sheath	PE, UV resistant, diameter 5.4 ± 0.2 mm
Sheath colour	black (RAL 9005)
Sheath marking	**SATEC RF 5 1.35L/3.6 50 OHM LOW LOSS** + meter marking

Electrical properties at 20 °C

Characteristic impedance	Ω	50 ± 2	
Attenuation at	10 MHz	dB/100m	2.8
(nominal)	100 MHz	dB/100m	8.9
	200 MHz	dB/100m	12.7
	800 MHz	dB/100m	25,8
	1000 MHz	dB/100m	29.1
	1600 MHz	dB/100m	39.9
	2000 MHz	dB/100m	41.8
	3000 MHz	dB/100m	51.7
	5200 MHz	dB/100m	69.6
Maximum Power rating at (ambient + 25°C)			
	10 MHz	Watts	2040
	100 MHz	Watts	640
	1000 MHz	Watts	197
	2000 MHz	Watts	131
Screening factor			
	100-1000 MHz	dB	> 85
Transfer impedance			
	at 10 MHz	mΩ/m	≤ 4
velocity ratio		%	78
DC resistance:			
Inner conductor		Ω/km	16,5
Outer conductor		Ω/km	17.0
Return loss			
50 -	450 MHz	dB	> 26
450 -	1000 MHz	dB	> 23
Mutual capacitance		pF/m	84,0

Mechanical properties at 20 °C

Operating temperature range	°C	-30 to +70
Temperature range during storage	°C	-30 to +70
Temperature range during installation	°C	-5 to + 60
Bending radius		
without load	mm	5 x ∅ Cable
with load	mm	10 x ∅ Cable
Fire propagation test (not for cables with the PE sheath) for cables with FRNC sheath		acc. to ICE 60332-1
Corrosivity	acc.to	ICE 60754-2

Technical data

Product code	Cable type	Design	Weight kg/km	Standard-Delivery-length m	Bending radius mm	Tensile force N	Storage
Satec RF 5 PE	1.35L/3.6 CF 50 Ω	RF-5X	39	500 / 100 / *	27	154	inside

* other lengths upon agreement

Dedicated connector: SATEC N-J5XD2

Coaxial cable basing upon DIN 47264, EN 50117-1 and IEC 61196-1