

Signum[®] 240

Low Loss Flexible Communication Coax 50 Ohm



Cable Design

Inner Conductor	Solid plain copper wire	Ø 1,40 mm
Dielectric	Gas injected skin-foam-skin polyethylene	Ø 3,80 ± 0,1 mm
Shield	Aluminium/Polyester/Aluminium Bonded tape	Ø 3,94 mm
Braid	Tinned copper wire braid	Ø 4,52 mm
Outer Jacket	Polyethylene (PE) or LSZH FireFighter [®]	Ø 6,10 ± 0,1 mm

Specification

Part Number	Type
240502	Polyethylene (PE)
240504	LSZH FireFighter [®] IEC 60332-3-24

Mechanical and Thermal Characteristics

Bending radius	Single	5	x Ø
Bending moment		0,34	N/m
Weight		50	kg/km
Tensile strength		36,3	kg
Flat plate crush		0,36	kg/mm
Temperature Range	Installation	-40 to +85	°C
	Storage	-70 to +85	°C
	Operating	-40 to +85	°C



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Electrical Data

Velocity of propagation		84	%
Dielectric constant		1,42	
Time delay		3,97	ns/m
Impedance		50 ± 1,5	Ohm
Capacitance		84	pF/m
Inductance		0,20	µH/m
Shielding effectiveness		> 90	dB
DC Resistance	Inner Conductor	11,5	Ohm/km
	Outer Conductor	16,2	Ohm/km
Voltage withstand		1500	V
Jacket spark		4500	V rms
Peak power		5,6	kW

Attenuation & Average Power

Frequency (MHz)	Attenuation (dB/100m)	Max. Power Rating (kW)	Frequency (MHz)	Attenuation (dB/100m)	Max. Power Rating (kW)	Frequency (MHz)	Attenuation (dB/100m)	Max. Power Rating (kW)
5	1,8	3536	450	16,2	373	1800	34,1	186
10	2,5	2500	600	18,7	323	2000	36,7	177
30	4,1	1443	800	21,9	280	2500	40,9	158
50	5,2	1118	900	22,9	264	3000	45,5	144
150	8,9	645	1000	24,5	250	5200	63,4	110
220	10,9	533	1500	30,8	204	5800	67,6	104

Structural Return Loss				Screening Effectiveness	
Frequency (MHz)	dB	Frequency (MHz)	dB	Frequency (MHz)	dB
30-450	> 32	2000-3000	> 23	100-900	> 95
450-1000	> 29	3000-4000	> 23	900-2000	> 85
1000-2000	> 26	4000-5800	> 14	2000-3000	> 75

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