RF-LLX-CL 7/8" SHF1

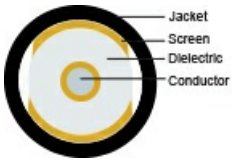
Radiation
50Ω
SHF1, UV
DNV

Application

Radiating coaxial antenna cable for maritime, building, and tunnel installations where conventional radio coverage is limited. RF-LLX-CL supports wideband frequency operation and enables uniform RF signal coupling along the cable, making it suitable for communication systems with extended frequency range requirements.

Construction coaxial

Conductor	Smooth Cu-tube Ø = 9.0 ± 0.1 [mm]
Dielectric	Foamed PE Ø = 22.0 ± 0.5 [mm]
Screen	Corrugated slotted Cu-tube Ø = 24.9 ± 0.3 [mm]
Jacket	Black or grey SHF1 UV-resistant
Outer diam.	27.5 ± 0.5 [mm]
Weight	456 [kg/km]
Jacket marking	NEK Kabel – RF-LLX-CL 7/8" 50 – SHF1 – DD.MM.YYYY – ****m



Specifications Coax

Temperature range	-20 – +70 [°C]
Temperature range at installation	-20 – +50 [°C]
Impedance	50 [Ω]
Insulation resistance	10000 [MΩ/km]
Velocity factor	88 [%]
Max pulling force	1500 [N]
Min bending radius installed	140 [mm]
Min. bending flexible	250 [mm]
Identification of radiation:	Opposite side of the slots

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360 (359) 3582
Design and testing standards	IEC 60096-0-1 Ed 3 EN 50288-1
Flame resistance	IEC 60332-3-22 Cat.A , IEC 60332-3-24 Cat.C
Flame retardant	IEC 60332-1-2
Smoke emission	IEC 61034-1 & IEC 61034-2
Oil and fuel resistant	IEC 60811-2-1 Mineral Oils, IRM 902: 23ºC / 7 days, 70°C / 4h Diesel, IRM 903: 23ºC / 7 days, 70°C / 4h
UV-resistant	ASTM G 154
CPR classification	Dca-s1,d2,a1
Certification	DNV

Part No.	1092480

Tips

NEK offers connectors for RF-LLX-CL 7/8" 50:
Female part no. 65444

Attenuation

Frequency [MHz]	Attenuation [dB/100m ±5%]	Coupling loss 95% [dB±10]
150	≤ 1.8	78
450	≤ 3.6	86
800	≤ 4.6	86
900	≤ 4.9	85
1800	≤ 7.6	85
2000	≤ 8.0	83
2200	≤ 8.6	83
2400	≤ 9.0	84
2600	≤ 9.4	82
3000	≤ 10.3	82
3500	≤ 11.4	83

VSWR

Frequency [MHz]	-
260 – 480	≤ 1.25
820 – 960	≤ 1.25
1700 – 1860	≤ 1.25
1900 – 2050	≤ 1.30
2100 – 2200	≤ 1.30
2300 – 2500	≤ 1.30
2500 – 2700	≤ 1.30
3400 – 3550	≤ 1.30

Updated

Date	Rev.	Description
21.10.2019	1	O.diam. and coupling loss
15.05.2020	2	VSWR
17.02.2022	3	Coupling loss
23.11.2023	4	Additional info
23.04.2025	5	Attenuation and CPR
03.03.2026	6	Construction