

# RF LLF 1/2"

Feeder cable  
 50Ω  
 LSZH, SHF1, UV  
 DNV-GL

**FS**  
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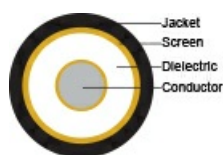
## Application

Low loss flexible feeder cable designed for broadband transmission from sources like radio antennas, radars, GPS devices, mobile phone antennas to distribution systems inside ships, tunnels, buildings and underground areas where RF signals normally cannot be received.



## Construction

Conductor	Copper coated Al wire 4.80 ± 0.05 [mm]
Dielectricum	Cellular PE 12.10 ± 0.30 [mm]
Screen	Corrugated Cu tube 13.90 ± 0.25 [mm]
Jacket	Black or grey SHF1
O.D.	16,40 ± 0,40 [mm]
Weight	250 [kg/km]
Jacket marking	NEK Kabel, RF LLF 1/2" 50 Date, batch number and meter marked



## Specifications

Operating temperature normal	-40 – +70 [°C]
Inductance	0.19 [μH/m]
Screen resistance	<2.85 [Ω/km]
Peak RF voltage	1.8 [kV]
Characteristic impedance	50 ± 2 Ω
Peak power rating	31.8 [kW]
Conductor resistance	< 1.60 [Ω/km]
Insulation resistance	10 [GΩ x km]
Tensile strength	1100 [N]
Capacitance	76 [pF/m]
Velocity factor	0.88
Max. power	31.8 [kW]
Min. bending radius	85 [mm]
Min. bending radius flexible	135 [mm]



## Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 and IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360 (359) . NEK 606
Design and testing standards	IEC 60096-0-1 Ed 3 IEC 61196-1-100
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Weather resistant	ASTM G 154
Smoke emission	IEC 61034-1, -2
UV-resistant	ASTM G 154
Certification	DNV-GL
Part No.	1028850-black, 1028857-grey



NEK offers connectors for RF LLF 1/2":  
Male, Part No. 65402 and Female, Part No. 65464

## Attenuation and Power rating

Frequency [MHz]	Nominal attenuation [dB/100m] max. 105%	Power rating [kW]
30	1.66	6.9
50	2.01	5.3
88	2.51	4.0
100	2.65	3.7
200	3.58	2.6
300	4.31	2.1
400	4.10	1.8
450	4.93	1.5
500	5.20	1.05
700	5.92	1.14
800	6.37	1.14
900	6.79	1.25
1000	6.86	1.1
1400	9.14	0.9
1800	9.94	0.78
2000	10.50	0.76
2400	11.67	0.66
3000	12.90	0.58
3400	14.24	0.54
6000	21.5	0.39
8000	27.0	0.31



## VSWR

Frequency [MHz]	-
790 – 960	1.14
1700 – 1900	1.09
1920 – 2025	1.12
2110 – 2200	1.12
2300 – 2400	1.13
2515 – 2675	1.13
3300 – 3700	1.14

## Updated

Date	Rev.	Description
13.09.2017	1	Update outer diam.
10.10.2017	2	Update screen resistance
27.11.2017	3	Update design Norm
27.9.2019	4	Corr. approval
16.06.2020	5	Corr. approvals
11.01.2022	6	Attenuation/VSWR