



# RF LLF 1/2" SHF1

Feeder cable

50Ω

SHF1, UV

DNV

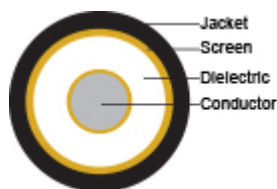
## Application

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 4.8 ± 0.2 [mm]
Dielectricum	Cellular PE 12.0 ± 0.5 [mm]
Screen	Corrugated Cu tube 13.9 ± 0.5 [mm]
Jacket	Black or grey SHF1 UV-resistant
O.D.	16.0 ± 0.5 [mm]
Weight	265 [kg/km]
Jacket marking	NEK Kabel – RF LLF 1/2" 50 – SHF1 – DNV – DD/MM/YYYY – <batch no.> – ****m



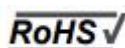


## Specifications

Operating temperature normal	-25 – +70 [°C]
Temperature @ installation	-20 – +50 [°C]
Inductance	0.19 [μH/m]
Peak RF voltage	1.8 [kV]
Characteristic impedance	50 ± 2 Ω
Peak power rating	32 [kW]
Insulation resistance	5000 [MΩ x km]
Tensile strength	1150 [N]
Capacitance	76 [pF/m]
Velocity factor	88 [%]
Min. bending radius	80 [mm]
Min. bending radius flexible	125 [mm]

## Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360 (359)
Design and testing standards	IEC 60096-0-1 Ed 3 IEC 61196-1-100
Flame resistance	IEC 60332-3-22 Cat.A IEC 60332-3-24 Cat.C
Flame retardant	IEC 60332-1-2
Weather resistant	ASTM G 154
Smoke emission	IEC 61034-1 & IEC 61034-2
Oil and fuel resistant	IEC 60811-2-1 Mineral Oils, IRM 902: 23°C / 7 days, 70°C / 4h Diesel, IRM 903: 23°C / 7 days, 70°C / 4h
UV-resistant	ASTM G 154
Certification	DNV
Prod.no.	1028850-black 1028857-grey



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



## Attenuation

Frequency [MHz]	Attenuation [dB/100m ±5%]	Coupling loss 95% [dB±10]
150	3.40	78
450	6.00	80
700	6.48	80
900	9.50	82
1800	13.75	88
2200	15.40	85
2400	16.00	87

## VSWR

Frequency [MHz]	-
260 – 480	≤ 1.30
820 – 960	≤ 1.30
1700 – 1860	≤ 1.30
2100 – 2200	≤ 1.30
2300 – 2500	≤ 1.30
2500 – 2700	≤ 1.30
3400 – 3600	≤ 1.35



## 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
22.12.2023	7	Norms
23.04.2025	8	Attenuation
12.12.2025	9	Additional info