



# RF LLF 1/2" MUD

## Feeder cable

50Ω

SHF2 MUD, UV

DNV

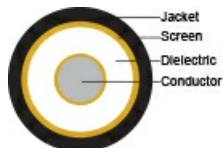
## Application

Low loss 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. Chemical resistant, SHF2 MUD jacket.



## Construction

|                |                                                                         |
|----------------|-------------------------------------------------------------------------|
| Conductor      | Copper coated Al wire 4.80 ± 0.05 [mm]                                  |
| Dielectricum   | Cellular PE 12.1 ± 0.3 [mm]                                             |
| Screen         | Corrugated Cu tube 13.90 ± 0.25 [mm]                                    |
| Jacket         | SHF2, MUD Black UV-resistant                                            |
| O.D.           | 16.7 ± 0.5 [mm]                                                         |
| Weight         | 265 [kg/km]                                                             |
| Jacket marking | NEK Kabel – RF LLF 1/2" – MUD – DNV –<br>DD/MM/YY – <batch no.> – ****m |



## Specifications

|                              |                |
|------------------------------|----------------|
| Operating temperature normal | -40 – +70 [°C] |
| Inductance                   | 0.19 [μH/m]    |
| Screen resistance            | < 2.4 [Ω/km]   |
| Peak RF voltage              | 1.8 [kV]       |
| Characteristic impedance     | 50 ± 2 Ω       |
| Peak power rating            | 32 [kW]        |
| Conductor resistance         | < 1.6 [Ω/km]   |
| Tensile strength             | 1100 [N]       |
| Insulation resistance        | 10 [GΩ x km]   |
| Capacitance                  | 76 [pF/m]      |
| Velocity factor              | 0,88           |
| Min. bending radius          | 85 [mm]        |
| Min. bending radius flexible | 135 [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                                 |
| Weather resistant                                  | ASTM G 154                                  |
| Smoke emission                                     | IEC 61034-1 & IEC 61034-2                   |
| MUD resistant                                      | NEK TS 606                                  |
| UV-resistant                                       | ASTM D 4587                                 |
| Certification                                      | DNV                                         |



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



|          |         |
|----------|---------|
| Part No. | 1092481 |
|----------|---------|

## 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       | ≤ 1.25 |
| 820 – 960       | ≤ 1.25 |
| 1700 – 1860     | ≤ 1.25 |
| 1900 – 2050     | ≤ 1.30 |
| 2300 – 2400     | ≤ 1.30 |



## Updated

| Date       | Rev. | Description  |
|------------|------|--------------|
| 27.11.2017 | 1    | Update norms |
| 19.04.2022 | 2    | MUD          |
| 24.04.2025 | 3    | Attenuation  |