submarine & offshore armoured optical cable

# QFCU NEK 606 FO

## QFCU 4–48F NEK TS 606 & IEC 60331-25 Fire- & Mud-Resistant Steel-Braid

NEK TS 606 / IEC 60331-25 · Optical · Submarine & offshore armoured optical cable



NEK TS 606 / IEC 60331-25 | Optical (-40 to +90 °C) | SHF2 Oil & Mud-Resistant Outer Sheat

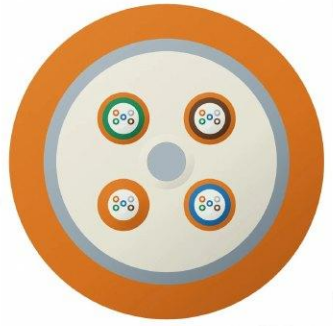
## Application

QFCU 4–48F NEK TS 606 & IEC 60331-25 Fire- & Mud-Resistant Steel-Braid Armoured Marine FO Cable (NEK TS 606 / IEC 60331-25) engineered for Optical service across -40 to +90 °C (min. bend radius 12 × OD).

**Typical uses:** Submarine Telecom & Cabled Ocean Observatories, Island, Coastal & Inter-Platform Subsea Optical Links, Offshore Platform & FPSO Fire-Safe Optical Backbones, Tactical Marine & Harsh-Environment Optical Deployment

## Construction



Cross-section, not to scale

1. Mica-Protected Gel-Filled Loose Tubes (4
2. LSZH Inner Bedding Sheath
3. Galvanized Steel Wire Braid (GSWB)
4. SHF2 Oil & Mud-Resistant Outer Sheath

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / transmission duty** | Optical (NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification) | **Core / conductor construction** | Mica-Protected Gel-Filled Loose Tubes (4–48F) — PBT loose tubes wrapped with fire-resistant mica tape (IEC 60331-25) |
| **Primary dielectric / buffering** | LSZH Inner Bedding Sheath — Halogen-free flame-retardant inner protective jacket | **Continuous operating temperature** | −40…+90 °C (subsea & offshore duty) |
| **Hydrostatic & thermal stability** | Verified thermal and hydrostatic stability per NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification | **Storage & transport temperature** | −40…+80 °C on export wooden/steel winch reel |
| **Outer protection / armouring** | SHF2 Oil & Mud-Resistant Outer Sheath — Cross-linked low-smoke zero-halogen SHF2 offshore jacket | **Minimum bending radius** | 12 × OD |
| **Armour, strength member & mechanical duty** | Galvanized Steel Wire Braid (GSWB) — High-coverage galvanized steel wire braid armour | **Seawater, hydrostatic & hydrolysis resistance** | Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification |
| **Oil, drilling mud & abrasion resistance** | Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification | | |

## Sizes

3 standard constructions

**Tick the sizes you need** and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

| Order designation | Configuration | Core / stranding | Outer Ø ≈ mm | Net weight ≈ kg/km | Breaking / tensile kN ≈ | Min. bend R mm |
|---|---|---|---|---|---|---|
| **QFCU NEK 606 FO Construction Schedule (−40…+90 °C)** 3 sizes | | | | | | |
| ☐ **QFCU NEK 606 FO 4–12F EOM/Sub** | 4–12 × ITU-T G.652D / G.654E SM (+ Power) | Laser-welded SS FIMT + Steel/Aramid Armour | 8.2 | 260 | 48.0 | 125 |
| ☐ **QFCU NEK 606 FO 24–48F EOM/Sub** | 24–48 × ITU-T G.652D / G.654E SM (+ Power) | Laser-welded SS FIMT + Contra-Helical Steel | 17.5 | 680 | 120.0 | 260 |
| ☐ **QFCU NEK 606 FO 96–192F Trunk** | 96–192 × ITU-T G.654E / G.652D Submarine | SS Tube + Steel Vault + Cu Tube + DA Armour | 28.0 | 1,650 | 300.0 | 420 |

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification.

## Electrical, optical & thermal parameters

3 sizes

| Configuration | Max. DC $R_{20}$ / Atten. Ω/km or dB/km | Rating / Impedance | Operating temp. |
|---|---|---|---|
| 4–12 × ITU-T G.652D / G.654E SM (+ Power) | 0.35 | ≤0.35 dB/km @ 1310 nm | −40…+90 °C |
| 24–48 × ITU-T G.652D / G.654E SM (+ Power) | 0.21 | ≤0.21 dB/km @ 1550 nm | −40…+90 °C |
| 96–192 × ITU-T G.654E / G.652D Submarine | 0.18 | ≤0.18 dB/km @ 1550 nm | −40…+90 °C |

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

## Standards and approvals

- NEK TS 606 / IEC 60331-25 Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

## Certifications

**Management systems:** ISO 9001, ISO 14001, ISO 45001

### Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
**+86 185 9591 3361**

Email
**info@tebaoflex.com**

Web
**tebaoflex.com/cables/qfcu-armoured-marine-fo-cable-nek-606**

Typical values for this cable type, based on NEK TS 606 QFCU SHF2-MUD & IEC 60331-25 Fire-Resistant Armoured Offshore Optical Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.