submarine & offshore armoured optical cable

MINISUB LW 8000m

MINISUB LW Up to 192F 8,000 m Full-Ocean-Depth Lightweight Steel-Vault

ITU-T G.972 / MINISUB LW 8,000 m · Optical · Submarine & offshore armoured optical cable



ITU-T G.972 / MINISUB LW 8,000 m | Optical (-20 to +70 °C) | High-Density Polyethylene (HDPE) She

Application

MINISUB LW Up to 192F 8,000 m Full-Ocean-Depth Lightweight Steel-Vault Submarine Optical Cable (ITU-T G.972 / MINISUB LW 8,000 m) engineered for Optical service across -20 to +70 °C (min. bend radius 20 × 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. Laser-Welded SS Loose Tube (Up to 192F)
2. High-Tensile Steel Wire Pressure Vault
3. Laser-Welded Copper Power Conductor Tube
4. High-Density Polyethylene (HDPE) Sheath

Technical data

Typical values

Rated voltage / transmission duty	Optical (ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine Optical Specification)	**Core / conductor construction**	Laser-Welded SS Loose Tube (Up to 192F) — Hermetic stainless-steel tube housing single-mode optical fibers
Primary dielectric / buffering	High-Tensile Steel Wire Pressure Vault — Interlocking steel wire vault rated for 8,000 m ocean depth	**Continuous operating temperature**	−20…+70 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine Optical Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	High-Density Polyethylene (HDPE) Sheath — High-dielectric black HDPE outer insulating & protective jacket	**Minimum bending radius**	20 × OD
Armour, strength member & mechanical duty	Laser-Welded Copper Power Conductor Tube — Continuous copper tube for long-haul DC constant-current feeding	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine Optical Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine Optical Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine 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
MINISUB LW 8000m Construction Schedule (−20…+70 °C) 3 sizes						
☐ **MINISUB LW 8000m 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**
☐ **MINISUB LW 8000m 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**
☐ **MINISUB LW 8000m 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 ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine 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**	**−20…+70 °C**
24–48 × ITU-T G.652D / G.654E SM (+ Power)	**0.21**	**≤0.21 dB/km @ 1550 nm**	**−20…+70 °C**
96–192 × ITU-T G.654E / G.652D Submarine	**0.18**	**≤0.18 dB/km @ 1550 nm**	**−20…+70 °C**

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

Standards and approvals

- ITU-T G.972 / MINISUB LW 8,000 m 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/minisub-lw-lightweight-8000m-subsea-cable

Typical values for this cable type, based on ITU-T G.972 MINISUB LW 8,000 m Full-Ocean-Depth Lightweight Submarine 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.