Subsea coaxial & acoustic cable

DSM 40-01

Subsea Acoustic Coaxial Cable

IEC 60092-350 / ISO 13628-5 · 40 Ω / 4.5 kV RMS · −40…+80 °C subsea sonar coaxial cable



40 Ω Coaxial | **4.5 kV RMS** | **Up to 6,000 m**

Application

DSM 40-01 40 Ω high-voltage subsea coaxial cable engineered for towed sonar arrays, deep-water acoustic transducers and oceanographic telemetry to 6,000 m depth, combining a 16.5 mm² stranded copper core, solid PE dielectric and heavy HDPU.

Typical uses: Subsea ROV, AUV & Towed Array Systems, Offshore Oil, Gas & Subsea Production Umbilicals, Oceanographic Mooring & Deep-Water Telemetry, Naval Defence, Hydrographic & Sonar Arrays

Construction





Cross-section, not to scale

1	Stranded Tinned Copper Center Conductor	IEC 60092-350 / ISO 13628-5 / MIL-C-17
2	FEP Fluoropolymer Dielectric Core	IEC 60092-350 / ISO 13628-5 / MIL-C-17
3	Tinned Copper Coaxial Braid Screen	IEC 60092-350 / ISO 13628-5 / MIL-C-17
4	Rubberized Separator Tape	IEC 60092-350 / ISO 13628-5 / MIL-C-17
5	Neoprene (Polychloroprene) Outer Sheath	IEC 60092-350 / ISO 13628-5 / MIL-C-17

Technical data

Typical values

Rated voltage / transmission duty	4.5 kV RMS (IEC 60092-350 / ISO 13628-5 / MIL-C-17)	**Core / conductor construction**	Stranded Tinned Copper Center Conductor — Electrolytic tinned copper strands (7 x 0.40 mm / 0.88 mm²) for low-loss RF & sonar transmission
Primary dielectric / buffering	FEP Fluoropolymer Dielectric Core — Extruded fluorinated ethylene propylene (FEP) solid dielectric core (OD 5.0 mm, 4.5 kV peak)	**Continuous operating temperature**	−40…+80 °C (subsea immersion & marine deck service)
Storage & transport temperature	−40…+80 °C on marine export reel	**Outer protection / armouring**	Neoprene (Polychloroprene) Outer Sheath — Heavy-duty black polychloroprene (CR / Neoprene) marine outer jacket resistant to seawater, oil, and abrasion
Minimum bending radius	10–15 × OD	**Hydrostatic depth rating**	Up to 6,000 m water depth (60 MPa hydrostatic pressure)
Seawater, hydrolysis & oil resistance	Continuous seawater immersion, hydraulic fluids and marine UV per IEC 60092-350 / ISO 13628-5 / MIL-C-17	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60092-350 / ISO 13628-5 / MIL-C-17		

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	Weight in air ≈ kg/km	Breaking load kN ≈	Min. bend R mm
DSM 40-01 Subsea Construction Schedule (−40…+80 °C) 3 sizes						
☐ **DSM 40-01 Standard**	1 × 16.5 mm² (40 Ω)	37 × 0.75 mm Cu	15.9	430	12.5	160
☐ **DSM 40-01 Aramid-Reinforced**	1 × 16.5 mm² (40 Ω)	37 × 0.75 mm Cu	17.8	510	35.0	180
☐ **DSM 40-01 Double-Armoured**	1 × 16.5 mm² (40 Ω)	37 × 0.75 mm Cu	21.4	1,180	95.0	320

– Custom core counts, optical fibre counts, armour wire grades and factory-moulded subsea terminations available per IEC 60092-350 / ISO 13628-5 / MIL-C-17.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
1 × 16.5 mm² (40 Ω)	1.13	84 pF/m	−40…+80 °C
1 × 16.5 mm² (40 Ω Aramid)	1.13	84 pF/m	−40…+80 °C
1 × 16.5 mm² (40 Ω Armoured)	1.13	84 pF/m	−40…+80 °C

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

Standards and approvals

- ISO 13628-5 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/dsm-40-01-40-ohm-subsea-acoustic-sonar-coaxial-cable

Typical values for this cable type, based on IEC 60092-350 / ISO 13628-5 / MIL-C-17. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.