25–30 year subsea cathodic protection reference & shunt cable

DR-2 / DR-2 CD & V-STRING

DR-2 / DR-2 CD & V-String Double-Armored Subsea CP Monitoring Cable

DNV-RP-B401 / MIL-83420 · 300/500 V · 25–30 year subsea cathodic protection reference



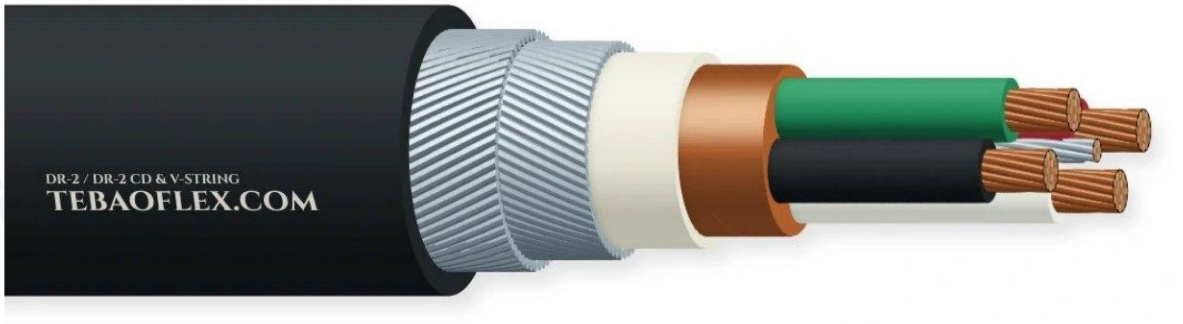
DNV-RP-B401 / MIL-83420 | **Ag/AgCl ±5 mV CP Reference** | **25–30 Year Double SWA**

Application

DR-2 / DR-2 CD & V-String Double-Armored Subsea CP Monitoring Cable (DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard) engineered for 300/500 V service across -30 to +80 °C (min. bend radius 10 × OD).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. CP Monitoring Conductors (4×12 AWG / 2×12 AWG)
2. EPC Insulation & Copper/Polyester Shield
3. Extruded TPU Inner Bedding Jacket
4. Double Galvanized Steel Wire Armor (2×SWA)
5. Black HDPE Jacket (or V-String Polyester Braid)

Technical data

Typical values

Rated voltage / transmission duty	300/500 V (DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard)	**Core / conductor construction**	CP Monitoring Conductors (4×12 AWG / 2×12 AWG) — Annealed copper 3.3 mm² cores for Ag/AgCl cell, Zn cell & 1 m² current-density shunt
Primary dielectric / buffering	EPC Insulation & Copper/Polyester Shield — Ethylene-propylene copolymer insulation + EPC fillers + drain wire + Cu/Polyester tape	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Black HDPE Jacket (or V-String Polyester Braid) — Black HDPE jacket (Ø 14/22 mm; V-String uses MIL-DTL-83420 steel cord + Polyester braid)	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	Double Galvanized Steel Wire Armor (2×SWA) — Two contra-helical layers of galvanized steel armor for conduit-free jacket clamping	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard		

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	Tensile rating kN ≈	Min. bend R mm
DR-2 / DR-2 CD & V-STRING Construction Schedule (−30…+80 °C) 3 sizes						
☐ **DR-2 Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **DR-2 Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **DR-2 Config C (Heavy Hybrid)**	8×2×20 AWG + 4×12 AWG (or 12C)	Stranded tinned Cu (IEC 60228 / ASTM)	16.6	420	18.5	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	28.40	300/500 V (45–100 Ω data)	−30…+80 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	300/500 V (45–100 Ω data)	−30…+80 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	300/500 V (High-Power Hybrid)	−30…+80 °C

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

Standards and approvals

- DNV-RP-B401 / MIL-83420 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/dr-2-dr-2-cd-v-string

Typical values for this cable type, based on DNV-RP-B401 / MIL-DTL-83420 Subsea CP Monitoring Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.