marine & offshore instrumentation cable

FMGCG / VG 95218 250V

FMGCG (DIN 89159) & VG 95218 250 V AC High-EMC Copper-Screened Naval &

DIN 89159 (FMGCG) / VG 95218 · 250 V · Marine & offshore instrumentation cable



DIN 89159 (FMGCG) / VG 95218 | 250 V (-35 to +90 °C) | Low-Smoke Low-Toxicity SHF1/SHF2 Jac

Application

FMGCG (DIN 89159) & VG 95218 250 V AC High-EMC Copper-Screened Naval & Sonar Lab Instrumentation Cable (DIN 89159 (FMGCG) / VG 95218) engineered for 250 V service across -35 to +90 °C (min. bend radius 6 × OD).

Typical uses: Offshore DCS, ESD & Fire-Gas Systems, Drilling Rig Instrumentation & Mud Logging, Naval Sonar, Radar & Combat Switchboards, Shipboard Bridge & Engine Room Automation

Construction





Cross-section, not to scale

1. Stranded Tinned Copper Pairs / Star-Quad
2. Individual Foil & Copper-Braid Overall S
3. Halogen-Free Inner Bedding Layer
4. Low-Smoke Low-Toxicity SHF1/SHF2 Jacket

Technical data

Typical values

Rated voltage / transmission duty	250 V (DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification)	**Core / conductor construction**	Stranded Tinned Copper Pairs / Star-Quads — Multi-strand tinned copper with halogen-free XLPO or HEPR insulation
Primary dielectric / buffering	Individual Foil & Copper-Braid Overall Screen — AWVPET pair/quad screen + high-density copper wire braid collective EMC shield	**Continuous operating temperature**	−35…+90 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Low-Smoke Low-Toxicity SHF1/SHF2 Jacket — Naval-grade zero-halogen outer sheath for sonar & acoustic labs	**Minimum bending radius**	6 × OD
Armour, strength member & mechanical duty	Halogen-Free Inner Bedding Layer — Extruded flame-retardant zero-halogen inner covering	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC 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
FMGCG / VG 95218 250V Construction Schedule (−35…+90 °C) 3 sizes						
☐ **FMGCG 4Pr / 8Ch**	**4×2×24–20 AWG (or 8-Ch Array)**	**Stranded SnCu + Foil/Braid + Aramid**	**11.2**	**175**	**12.5**	**90**
☐ **FMGCG 8Pr / 16Ch**	**8×2×22–18 AWG (or 16-Ch Array)**	**Stranded SnCu + Foil/Braid + Aramid**	**16.4**	**340**	**24.0**	**130**
☐ **FMGCG 16Pr / 24Ch**	**16×2×18–16 AWG (or 24-Ch Array)**	**Stranded SnCu + Foil/Braid + Aramid**	**24.8**	**690**	**35.0**	**195**

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24–20 AWG (or 8-Ch Array)	**42.00**	**250 V (≤55 nF/km)**	**−35…+90 °C**
8×2×22–18 AWG (or 16-Ch Array)	**26.00**	**250 V (≤60 nF/km)**	**−35…+90 °C**
16×2×18–16 AWG (or 24-Ch Array)	**15.20**	**250 V (≤65 nF/km)**	**−35…+90 °C**

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

Standards and approvals

- DIN 89159 (FMGCG) / VG 95218 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/fmgcg-vg-95218-250v-naval-instrument-cable

Typical values for this cable type, based on DIN 89159 (FMGCG) & German Navy VG 95218 250 V Low-Smoke Zero-Halogen Naval EMC Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.