wet-mate subsea glider, ROV & IP69K molded cable assembly

G55 Series 70 Manipulator Cable

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MIL-DTL-24643 / 10,000 psi · 600 V · Wet-mate subsea glider, rov & ip69k molded cable



MIL-DTL-24643 / 10,000 psi | 600 V (-40 to +85 °C) | Subsea / Marine Outer Protective She

Application

G55 Series 70 Molded Manipulator Cable featuring flexible stranded copper conductors (12 cores) and subsea / marine outer protective sheath (MIL-DTL-24643 / 10,000 psi, 600 V, -40 to +85 °C, min. bend radius 5 × OD).

Typical uses: Ocean Glider, Argo Float & AUV Wet-Mate Payload Sensors, Work-Class ROV Hydraulic Manipulators & PBOF Jumpers, Subsea Camera, LED Light & Multibeam Sonar Whips, ECOLAB / IP69K 316L Stainless Seafood Processing Cordsets

Construction





Cross-section, not to scale

1. Flexible Stranded Copper Conductors (12
2. Cross-Linked Elastomeric / Polymer Core
3. Water-Blocking Tape & Inner Bedding
4. Subsea / Marine Outer Protective Sheath

Technical data

Typical values

Rated voltage / operating system	600 V (MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification)	**Core / conductor construction**	Flexible Stranded Copper Conductors (12 Cores) — Class 5 / class 6 copper conductors
Primary dielectric / optical buffer	Cross-Linked Elastomeric / Polymer Core Insulation — Fluoropolymer (fep/etfe) high-dielectric insulation	**Continuous operating temperature**	−40…+85 °C (submerged seawater & topside deck service)
Hydrostatic & thermal cycling endurance	Verified cold-bend and wet dielectric stability across −40…+85 °C per MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Subsea / Marine Outer Protective Sheath — Black hydrolysis- & abrasion-resistant marine Polyurethane (PUR) outer sheath	**Minimum bending radius**	5 × OD
Reinforcement / screen / bedding layer	Water-Blocking Tape & Inner Bedding — Hydrostatic water-blocking filler and low-friction separator wrap	**Seawater, hydrolysis & oil resistance**	Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification
Hydrostatic pressure & water blocking	Radial and longitudinal water-blocking integrity verified per MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator 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	Max. pulling kN ≈	Min. bend R mm
G55 Series 70 Manipulator Cable Construction Schedule (−40…+85 °C) 3 sizes						
☐ G55 Series 70 Manipulator Cable 4G1.5 / 5C18AWG	4G1.5 mm² (or 5C × 18 AWG)	IEC 60228 Class 5/6 Cu/SnCu	9.6	145	2.2	55
☐ G55 Series 70 Manipulator Cable 7G1.5 / 8C16AWG	7G1.5 mm² (or 8C × 16 AWG)	IEC 60228 Class 5/6 Cu/SnCu	12.2	235	3.6	70
☐ G55 Series 70 Manipulator Cable 12G2.5 / 16C16AW	12G2.5 mm² (or 16C × 16 AWG)	IEC 60228 Class 5/6 Cu/SnCu	17.4	510	7.5	105

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance / Load	Operating temp.
4G1.5 mm² (or 5C × 18 AWG)	13.30	600 V (18 A)	−40…+85 °C
7G1.5 mm² (or 8C × 16 AWG)	13.30	600 V (16 A)	−40…+85 °C
12G2.5 mm² (or 16C × 16 AWG)	7.98	600 V (22 A)	−40…+85 °C

– Every production length undergoes routine conductor DC resistance / OTDR optical attenuation, AC dielectric and dimensional verification.

Standards and approvals

- MIL-DTL-24643 / 10,000 psi 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/g55-series-70-molded-manipulator-cable

Typical values for this cable type, based on MIL-DTL-24643 G55 Series 70 (10,000 psi) Molded ROV Manipulator Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.