aquaculture feeder drag-chain & subsea robotic torsion cable

KF-PUR Drag-Chain Robotic Hybrid

KF-PUR Drag-Chain & Robotic Hybrid Cable

DIN VDE 0285 / UL AWM 21223 · 0.6/1 kV + 300 V · Aquaculture feeder drag-chain &



DIN VDE 0285 / UL AWM 21223 | 0.6/1 kV + 300 V (-40 to +80 °C) | Subsea / Marine Outer Protective She

Application

KF-PUR Drag-Chain & Robotic Hybrid Cable featuring power supply conductors (4 cores) and subsea / marine outer protective sheath (DIN VDE 0285 / UL AWM 21223, 0.6/1 kV + 300 V, -40 to +80 °C, min. bend radius 6 × OD).

Typical uses: Automated Aquaculture Rail & Gantry Feeding Systems, Subsea ROV Electric Manipulator Wrists & Pan-Tilt Units, Hatchery Grading, Vaccination & Fish-Counting Automation, Seafood Cold-Storage & Automated Packaging Drag Chains

Construction





Cross-section, not to scale

1. Power Supply Conductors (4 Cores)
2. Shielded Data Twisted Pairs (4×2)
3. Copper Wire Braid EMC Screen
4. Subsea / Marine Outer Protective Sheath

Technical data

Typical values

Rated voltage / operating system	0.6/1 kV + 300 V (DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data Specification)	**Core / conductor construction**	Power Supply Conductors (4 Cores) — Stranded copper power cores with High-density polyethylene (HDPE / PE) core insulation
Primary dielectric / optical buffer	Shielded Data Twisted Pairs (4×2) — Impedance-controlled twisted pairs for Ethernet / RS-485 / DMX	**Continuous operating temperature**	−40...+80 °C (submerged seawater & topside deck service)
Hydrostatic & thermal cycling endurance	Verified cold-bend and wet dielectric stability across −40...+80 °C per DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data 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**	6 × OD
Reinforcement / screen / bedding layer	Copper Wire Braid EMC Screen — High-coverage braided copper shield for EMI/VFD protection	**Seawater, hydrolysis & oil resistance**	Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data Specification
Hydrostatic pressure & water blocking	Radial and longitudinal water-blocking integrity verified per DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data 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
KF-PUR Drag-Chain Robotic Hybrid Construction Schedule (−40...+80 °C) 3 sizes						
☐ KF-PUR Drag-Chain Robotic Hybrid 2×2×0.50 mm²	2 × 2 × 0.50 mm² (20 AWG) + Vent/Drain	Stranded SnCu + Foil/TCWB + Subsea PUR	8.4	98	2.5	50
☐ KF-PUR Drag-Chain Robotic Hybrid 4×2×0.50 + 2×1.	4 × 2 × 0.50 + 2 × 1.5 mm² Hybrid	Stranded SnCu + Individual/Overall Shield	11.8	195	5.2	70
☐ KF-PUR Drag-Chain Robotic Hybrid 4×2×0.75 + 4×2.	4 × 2 × 0.75 + 4 × 2.5 mm² Subsea	Stranded SnCu + Aramid/Armour + PUR	15.2	360	12.0	95

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance / Load	Operating temp.
2 × 2 × 0.50 mm² (20 AWG) + Vent/Drain	39.00	0.6/1 kV + 300 V (4–20 mA / DO)	−40...+80 °C
4 × 2 × 0.50 + 2 × 1.5 mm² Hybrid	39.00	0.6/1 kV + 300 V (CTD / Multi-Sensor)	−40...+80 °C
4 × 2 × 0.75 + 4 × 2.5 mm² Subsea	26.00	0.6/1 kV + 300 V (ROV / Camera / LED)	−40...+80 °C

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

Standards and approvals

- DIN VDE 0285 / UL AWM 21223 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/kf-pur-drag-chain-robotic-hybrid-cable

Typical values for this cable type, based on DIN VDE 0285 KF-PUR Drag-Chain & Robotic Hybrid Servo-Data Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.