



Flexible crane fiber-optic cable

G62.5 / G50 / E9/125 FO

G62.5 / G50 / E9/125 Fiber-Optic Crane & Spreader Cable

All-dielectric 6 to 24-fibre PCP rubber optical cable for crane reels, festoons & tenders



DIN VDE 0888 · ISO/IEC 9314-3

All-dielectric · 6 to 24 FO

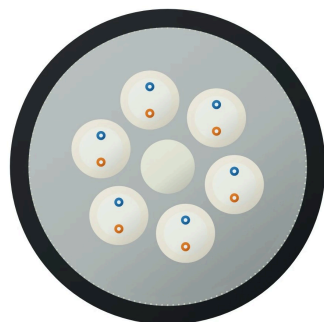
Reel ≤ 120 · Festoon ≤ 240 m/min

Application

Torsion-resistant ($\pm 50^\circ/\text{m}$) all-dielectric optical cable in G62.5/125, G50/125 multimode and E9/125 single-mode (6–24 fibres) with GFK central rod, ETFE 7Y11 gel-filled tubes, polyester braid and 5GM3 PCP rubber sheath.

Typical uses: STS, RMG, RTG & overhead crane trolley festoons and cable tenders (to 240 m/min), Cylindrical gantry reeling optical telemetry and SCADA links (to 120 m/min), EMI-immune Gigabit Ethernet, Profinet, HD camera and LiDAR crane networks, Outdoor harbour, steelworks and bulk-material handling plants (-35 to $+80^\circ\text{C}$)

Construction



Cross-section, not to scale

- 1 Optical fibres & central GFK support rod
- 2 Gel-filled ETFE hollow-core buffer tubes
- 3 Inner sheath
- 4 Polyester anti-torsion reinforcement braid
- 5 Outer sheath

Technical data

Typical values

Transmission medium	All-dielectric optical glass fibres (no copper conductor; 100% immune to EMI/RFI and ground potential differences)
G50/125 µm multimode optics	Max. attenuation 2.8 dB/km (850 nm) / 0.8 dB/km (1300 nm) · min. bandwidth 400 / 1200 MHz·km · NA 0.20 ± 0.02
Ambient temperature, flexible	–35 to +80 °C in dynamic reeling, festoon and tender service
Thermal stability of buffer tubes	ETFE fluoropolymer compound 7Y11 hollow-core buffer tubes with thixotropic filling gel
Min. bending radius & S-guide	125 mm for fixed installation & festoon systems · 250 mm for reeling · 20 × D (298–340 mm) for S-type directional changes
Oil resistance	DIN EN 60811-404 / DIN VDE 0473-811-404 para. 10 (5GM3 PCP rubber sheath)
Electromagnetic compatibility	100% dielectric construction (GFK rod + glass fibres + polyester braid); zero susceptibility to HV or VFD noise
Standard packing	Heat-treated seaworthy timber drums with waterproof end caps

G62.5/125 µm multimode optics	Max. attenuation 3.3 dB/km (850 nm) / 0.9 dB/km (1300 nm) · min. bandwidth 400 / 600 MHz·km · NA 0.275 ± 0.02
E9/125 µm single-mode optics	Max. attenuation 0.4 dB/km (1300 nm) / 0.3 dB/km (1550 nm) · NA 0.14 ± 0.02 · chromatic dispersion ≤ 3.5 ps/(nm·km)
Ambient temperature, fixed	–40 to +80 °C in fixed installation
Travel speed by system	Up to 120 m/min on cylindrical gantry reels (no random-wound reels) · up to 240 m/min on trolley festoons & cable tenders
Max. tensile load & torsion	500 N max. tensile load · ±50 %/m permissible torsional stress (bending & reverse-bending tested)
Weather, UV & ozone	Unrestricted indoor and outdoor use; resistant to ozone, UV radiation and moisture
Standards	Based on FDDI · ISO/IEC 9314 Part 3 · DIN VDE 0888

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Configuration	Fibres count	Fibre category	Outer Ø min mm	Outer Ø max mm	Weight ≈ kg/km	Max. attenuation 850 / 1300 nm	Max. attenuation 1300 / 1550 nm	Min. bandwidth / max. dispersion	Numerical aperture (±0.02)	Festoon R mm	Reel R mm
G62.5/125 µm · Multimode (OM1) 4 sizes											
☐ 6G62.5/125 µm	6	G62.5/125 µm MM (OM1)	14.9	17.0	280	≤ 3.3 dB/km (850 nm)	≤ 0.9 dB/km (1300 nm)	≥ 400 / 600 MHz·km (850/1300 nm)	0.275	125	250
☐ 12G62.5/125 µm	12	G62.5/125 µm MM (OM1)	14.9	17.0	280	≤ 3.3 dB/km (850 nm)	≤ 0.9 dB/km (1300 nm)	≥ 400 / 600 MHz·km (850/1300 nm)	0.275	125	250
☐ 18G62.5/125 µm	18	G62.5/125 µm MM (OM1)	14.9	17.0	280	≤ 3.3 dB/km (850 nm)	≤ 0.9 dB/km (1300 nm)	≥ 400 / 600 MHz·km (850/1300 nm)	0.275	125	250
☐ 24G62.5/125 µm	24	G62.5/125 µm MM (OM1)	14.9	17.0	280	≤ 3.3 dB/km (850 nm)	≤ 0.9 dB/km (1300 nm)	≥ 400 / 600 MHz·km (850/1300 nm)	0.275	125	250
G50/125 µm · Multimode (OM2) 4 sizes											
☐ 6G50/125 µm	6	G50/125 µm MM (OM2)	14.9	17.0	280	≤ 2.8 dB/km (850 nm)	≤ 0.8 dB/km (1300 nm)	≥ 400 / 1200 MHz·km (850/1300 nm)	0.200	125	250
☐ 12G50/125 µm	12	G50/125 µm MM (OM2)	14.9	17.0	280	≤ 2.8 dB/km (850 nm)	≤ 0.8 dB/km (1300 nm)	≥ 400 / 1200 MHz·km (850/1300 nm)	0.200	125	250
☐ 18G50/125 µm	18	G50/125 µm MM (OM2)	14.9	17.0	280	≤ 2.8 dB/km (850 nm)	≤ 0.8 dB/km (1300 nm)	≥ 400 / 1200 MHz·km (850/1300 nm)	0.200	125	250
☐ 24G50/125 µm	24	G50/125 µm MM (OM2)	14.9	17.0	280	≤ 2.8 dB/km (850 nm)	≤ 0.8 dB/km (1300 nm)	≥ 400 / 1200 MHz·km (850/1300 nm)	0.200	125	250
E9/125 µm · Single-Mode (OS2) 4 sizes											
☐ 6E9/125 µm	6	E9/125 µm SM (OS2)	14.9	17.0	280	≤ 0.4 dB/km (1300 nm)	≤ 0.3 dB/km (1550 nm)	≤ 3.5 ps/(nm·km) (1300/1550 nm)	0.140	125	250
☐ 12E9/125 µm	12	E9/125 µm SM (OS2)	14.9	17.0	280	≤ 0.4 dB/km (1300 nm)	≤ 0.3 dB/km (1550 nm)	≤ 3.5 ps/(nm·km) (1300/1550 nm)	0.140	125	250
☐ 18E9/125 µm	18	E9/125 µm SM (OS2)	14.9	17.0	280	≤ 0.4 dB/km (1300 nm)	≤ 0.3 dB/km (1550 nm)	≤ 3.5 ps/(nm·km) (1300/1550 nm)	0.140	125	250
☐ 24E9/125 µm	24	E9/125 µm SM (OS2)	14.9	17.0	280	≤ 0.4 dB/km (1300 nm)	≤ 0.3 dB/km (1550 nm)	≤ 3.5 ps/(nm·km) (1300/1550 nm)	0.140	125	250

- Multimode G62.5/125 and G50/125 specify max. attenuation and min. modal bandwidth (MHz·km) at 850 nm and 1300 nm; single-mode E9/125 specifies max. attenuation and chromatic dispersion (≤ 3.5 ps/nm·km) at 1300 nm and 1550 nm with Numerical Aperture 0.14 ± 0.02.
- Minimum bending radius is 125 mm for fixed installation and trolley festoon systems (up to 240 m/min) and 250 mm for cylindrical gantry reeling (up to 120 m/min; max. tensile load 500 N).

Standards and approvals

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/g62-5-g50-e9-125-fiber-optic-spreader-cable



Typical values for this cable type, based on DIN VDE 0888 / ISO/IEC 9314-3. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.