

MILITARY TACTICAL D-SERIES DISTRIBUTION CABLES

PRODUCT SPECIFICATIONS



oc 16 | OUTDOOR CABLES

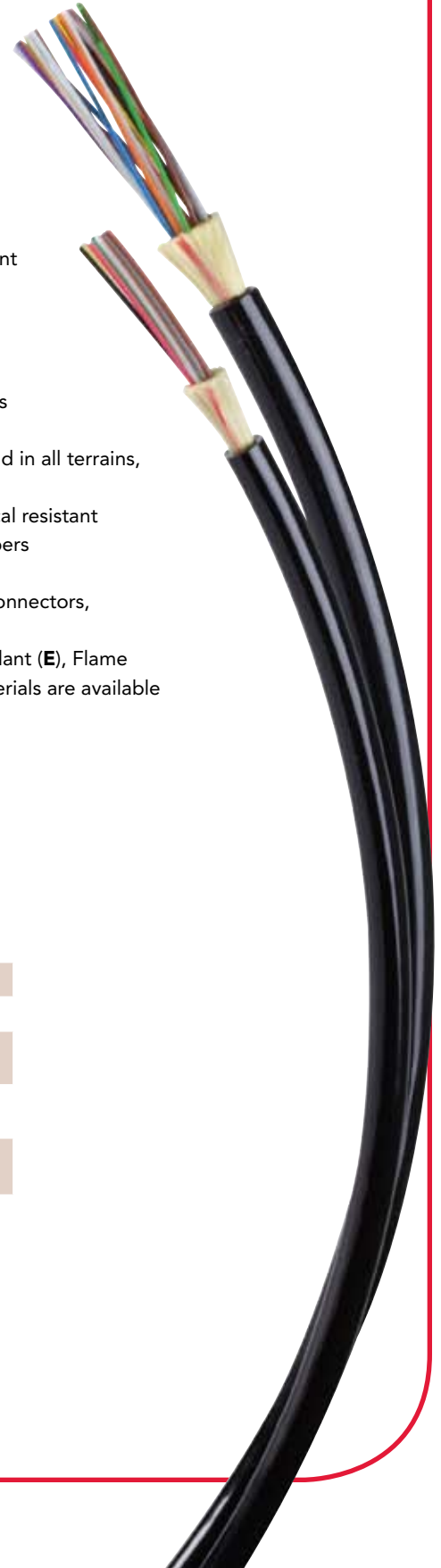
D-Series Mil-Tac

Applications

- Ground-tactical cable that is ideal for use in harsh environments where deployment and retrieval for reuse is required

Features

- Extremely strong, lightweight, rugged, survivable tight-buffered cables designed for military tactical field use and commercial applications
- Compact, round cable design for ease of transportation and deployment
- Designed for use in adverse environments where reduced size and weight are important
- Helically stranded cable core for flexibility, deployment survivability and exceptional mechanical protection for the optical fibers
- Cables have been tested and are in use in military data communications applications worldwide
- Can be used outdoors for temporary deployment directly on the ground in all terrains, including severe environments
- Suitable for industrial, mining and petrochemical environments; chemical resistant
- Crush resistant and resilient with a thick layer of aramid strength members
- Polyurethane jacketed for abrasion, cut and chemical resistance
- Most commonly used with ruggedized multiway military tactical field connectors, for maximum connector retention (400 lbs)
- Tactical Polyurethane (**C**) outer jacket material is standard. Flame retardant (**E**), Flame retardant tactical (**V**) and low smoke zero halogen (**G**) outer jacket materials are available



Mechanical and Environmental Performance

(tested to MIL PRF 85045 methods)

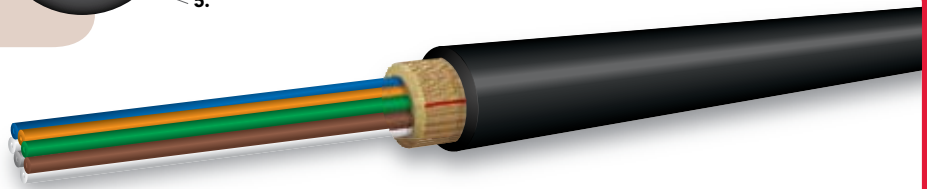
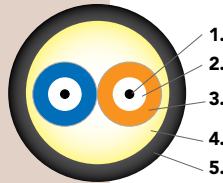
Operating Temperature	-55°C to +85°C
Storage Temperature	-70°C to +85°C
Impact Resistance:	200 Impacts (EIA/TIA-455-25 military requirements)
Crush Resistance:	440 N/cm (EIA/TIA-455-41 military requirements)
Flex Resistance:	2,000 Cycles (EIA/TIA-455-104 military requirements)

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OUTDOOR CABLES | oc 17

1. Optical Fiber
2. Acrylate Fiber Coating
3. Color-Coded 900 μm Diameter Hard Elastomeric Tight-Buffer
4. Aramid Strength Member
5. Core-Locked™ Polyurethane Jacket



Cable Characteristics: Mil-Tac D-Series Distribution Cables

Fiber Count	Diameter mm (in)	Weight kg/km (lbs/1,000')	Installation Tensile Load N (lbs)	Operational Tensile Load N (lbs)	Minimum Bend Radius Installation cm (in)	Minimum Bend Radius Long-Term cm (in)
2	5.0 (0.20)	21 (14)	1,800 (400)	600 (130)	8.0 (3.1)	4.0 (1.6)
4	5.5 (0.22)	27 (18)	1,800 (400)	600 (130)	8.9 (3.5)	4.4 (1.7)
6	6.0 (0.24)	32 (22)	1,800 (400)	600 (130)	9.6 (3.8)	4.8 (1.9)
8	6.5 (0.26)	37 (25)	1,800 (400)	600 (130)	10.4 (4.1)	5.2 (2.0)
10	6.5 (0.26)	37 (25)	2,100 (470)	700 (160)	10.4 (4.1)	5.2 (2.0)
12	6.5 (0.26)	36 (24)	2,100 (470)	700 (160)	10.4 (4.1)	5.2 (2.0)
18	7.5 (0.30)	49 (33)	2,400 (540)	800 (180)	12.0 (4.7)	6.0 (2.4)
24	8.5 (0.33)	56 (38)	3,000 (670)	1,000 (220)	13.6 (5.4)	6.8 (2.7)

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Ultra-Fox™ Plus Fiber Performance*

Fiber Code	Core/Cladding/Coating Diameter (µm)	Wavelength (nm)	Industry Standard Designation	Gigabit Ethernet Distance (m)	10-Gigabit Ethernet Distance (m)	Maximum Cabled Attenuation (dB/km)	Minimum Laser Bandwidth (MHz-km)	Minimum LED Bandwidth (MHz-km)
WST	62.5/125/500	(850/1310)	OM1 ISO/IEC 11801	275/550	33/300	3.5/1.5	—	200/500
AST	50/125/500	(850/1310)	OM2 ISO/IEC 11801	550/550	82/300	3.5/1.5	—	500/500
SLS	9/125/500 ¹ Single-mode	(1310/1550)	ITU-T G.652.A	5 km ²	10 km ³	0.5/0.5	—	—

¹ Typical Mode Field Diameter at 1310 nm = 9 microns

² 10 km for 1310 nm 1000BASE-LH, and 5 km for 1310 nm 1000BASE-LR

³ 10 km for 1310 nm 10GBASE-LR, and 40 km for 1550 nm 10GBASE-ER

Note: Other fiber bandwidth and attenuation performances are available. Laser optimized fiber types available as special order. Contact Optical Cable Corporation for details.

Ordering Information

	D	-								5	K	M
Digit No:	1	2	3	4	5	6	7	8	9	10	11	12

- 1 – 2 Mil-Tac Distribution Series Ultra-Fox Plus™ = **D** –
- 3 – 5 Fiber count: (See Cable Characteristics Chart) = **002 – 024**
- 6 Jacket type:
 - Tactical Polyurethane = **C**
 - Flame Retardant Polyurethane = **E**
 - Low Smoke Zero Halogen Polyurethane = **G**
 - Tactical Flame Retardant Polyurethane = **V**
- 7 – 9 Fiber type: (See Laser Ultra-Fox™ Plus Fiber Performance Table)
 - 62.5 µm multimode = **WST**
 - 50 µm multimode = **AST**
 - Single-mode = **SLS**
- 10 500 micron fiber with 900 micron tight buffer = **5**
- 11 Jacket Color: Black = **K**
- 12 Rating: Mil = **M**

Example: 12 fiber mil-tac distribution cable using 62.5 µm fiber, black jacket –

D	-	0	1	2	C	W	S	T	5	K	M
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