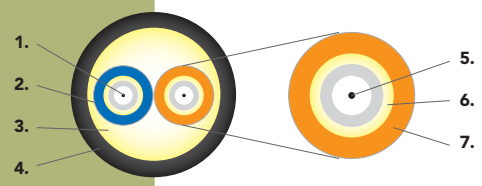
MILITARY CABLES

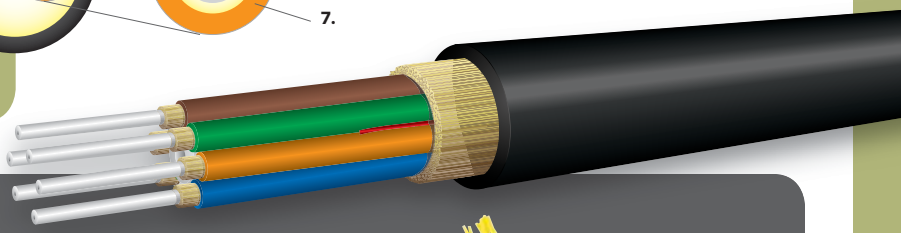
(3.5e) B-Series Breakout – Mil-Tac Cables

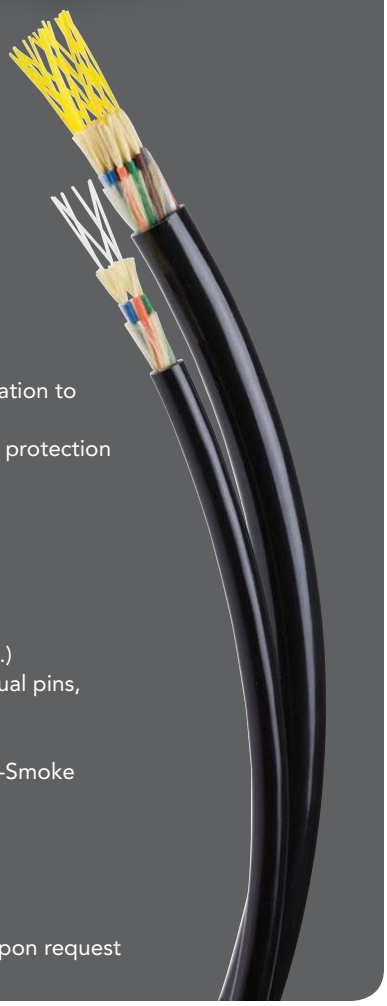
1. Tight-Buffer Optical Fiber
2. Subcable
3. Aramid Strength Member
4. Outer Jacket

Subcable

5. Tight-Buffer Optical Fiber
6. Aramid Strength Member
7. Subcable Jacket







Applications

- Ground-tactical cable that is ideal for use in harsh environments where deployment and retrieval for reuse are required
- Ideal for applications that require termination of the subcables to a connector

Features

- Extremely strong, lightweight, rugged, survivable tight-buffered cables designed for military tactical field use and commercial applications
- Polyurethane jacketed for abrasion, cut and chemical resistance
- Core-Locked™ jacket for improved mechanical performance
- Breakout cable design with individual color-coded subcables protecting each optical fiber
- Crush resistant and resilient, with two separate layers of aramid strength members in the subcables for individual single-fiber connector and termination pin, and overall for termination to multiway connector backshells or other housings
- 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
- Round cable design for easy installation and survivability
- Often used with multiway military tactical connectors for maximum connector retention (400 lbs.)
- Ideally suited for use with MIL-C-38999 style military connectors; subcables terminate to individual pins, and overall aramid strength member terminates to backshell
- 2.0 mm subcables standard
- Tactical Polyurethane (C) outer jacket material is standard; Flame-Retardant Tactical (V) and Low-Smoke Zero-Halogen (G) outer jacket materials are available
- Ultra-Fox Plus fiber used for the ultimate environmental and mechanical protection

OCC Provided Options

- Mil-Tac cables prespooled on deployable reels for a ready-to-use product
- Mil-Tac cables can be pre-terminated with single-fiber or ruggedized multichannel connectors upon request

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-455-25A military requirements)
Crush resistance	440 N/cm (TIA/EIA-455-41A military requirements)
Flex resistance	2,000 cycles (TIA/EIA-455-104A military requirements)

(3.5e) B-Series Breakout – Mil-Tac Cables

Cable Characteristics: B-Series Breakout Mil-Tac Cables (C Jacket)

FIBER COUNT	DIAMETER MM (IN)	WEIGHT KG/KM (LBS/1,000')	TENSILE LOAD		MINIMUM BEND RADIUS	
			INSTALLATION N (LBS)	OPERATIONAL N (LBS)	INSTALLATION CM (IN)	LONG-TERM CM (IN)
2	6.5 (0.26)	36 (24)	2,200 (490)	550 (120)	6.5 (2.6)	3.3 (1.3)
4	7.5 (0.30)	47 (32)	2,200 (490)	550 (120)	7.5 (3.0)	3.8 (1.5)
6	8.5 (0.33)	55 (37)	2,400 (540)	600 (130)	8.5 (3.3)	4.3 (1.7)
8	10.0 (0.39)	76 (51)	3,200 (720)	800 (180)	10.0 (3.9)	5.0 (2.0)
10	11.5 (0.45)	99 (67)	4,000 (900)	1,000 (220)	11.5 (4.5)	5.8 (2.3)
12	11.0 (0.43)	86 (58)	4,800 (1080)	1,200 (270)	11.0 (4.3)	5.5 (2.2)
18	13.5 (0.53)	135 (91)	7,200 (1620)	1,800 (400)	13.5 (5.3)	6.8 (2.7)
24	14.5 (0.57)	150 (101)	9,600 (2160)	2,400 (540)	14.5 (5.7)	7.3 (2.9)

B-Series Breakout Mil-Tac Cables (V Jacket)

FIBER COUNT	DIAMETER MM (IN)	WEIGHT KG/KM (LBS/1,000')	TENSILE LOAD		MINIMUM BEND RADIUS	
			INSTALLATION N (LBS)	OPERATIONAL N (LBS)	INSTALLATION CM (IN)	LONG-TERM CM (IN)
2	6.5 (0.26)	39 (26)	2,200 (490)	550 (120)	6.5 (2.6)	3.3 (1.3)
4	7.5 (0.30)	49 (33)	2,200 (490)	550 (120)	7.5 (3.0)	3.8 (1.5)
6	8.5 (0.33)	57 (38)	2,400 (540)	600 (130)	8.5 (3.3)	4.3 (1.7)
8	10.0 (0.39)	79 (53)	3,200 (720)	800 (180)	10.0 (3.9)	5.0 (2.0)
10	11.5 (0.45)	104 (70)	4,000 (900)	1,000 (220)	11.5 (4.5)	5.8 (2.3)
12	11.0 (0.43)	90 (60)	4,800 (1080)	1,200 (270)	11.0 (4.3)	5.5 (2.2)
18	13.5 (0.53)	141 (95)	7,200 (1620)	1,800 (400)	13.5 (5.3)	6.8 (2.7)
24	14.5 (0.57)	155 (104)	9,600 (2160)	2,400 (540)	14.5 (5.7)	7.3 (2.9)

B-Series Breakout Mil-Tac Cables (G Jacket)

FIBER COUNT	DIAMETER MM (IN)	WEIGHT KG/KM (LBS/1,000')	TENSILE LOAD		MINIMUM BEND RADIUS	
			INSTALLATION N (LBS)	OPERATIONAL N (LBS)	INSTALLATION CM (IN)	LONG-TERM CM (IN)
2	6.5 (0.26)	38 (26)	2,200 (490)	550 (120)	6.5 (2.6)	3.3 (1.3)
4	7.5 (0.30)	48 (32)	2,200 (490)	550 (120)	7.5 (3.0)	3.8 (1.5)
6	8.5 (0.33)	56 (38)	2,400 (540)	600 (130)	8.5 (3.3)	4.3 (1.7)
8	10.0 (0.39)	78 (52)	3,200 (720)	800 (180)	10.0 (3.9)	5.0 (2.0)
10	11.5 (0.45)	102 (69)	4,000 (900)	1,000 (220)	11.5 (4.5)	5.8 (2.3)
12	11.0 (0.43)	89 (60)	4,800 (1080)	1,200 (270)	11.0 (4.3)	5.5 (2.2)
18	13.5 (0.53)	138 (93)	7,200 (1620)	1,800 (400)	13.5 (5.3)	6.8 (2.7)
24	14.5 (0.57)	153 (103)	9,600 (2160)	2,400 (540)	14.5 (5.7)	7.3 (2.9)

"Mil-Tac" designated and tested cables available to 24 fibers.
Other fiber counts available with polyurethane outer jacket.
Installation loads in excess of 2,700 N (600 lbs.) are not recommended.

(3.5e) B-Series Breakout – Mil-Tac Cables

Ordering Information

	B	**–**								**5**	**K**	**M**
Digit No:	1	2	3	4	5	6	7	8	9	10	11	12

1 – 2 Mil-Tac Breakout Series Ultra-Fox Plus= **B–**

3 – 5 Fiber count: (See Cable Characteristics Chart) = **002–024**

6 Jacket type:
- Tactical Polyurethane = **C**
- Low-Smoke Zero-Halogen Polyurethane = **G**
- Flame-Retardant Tactical Polyurethane = **V**

7 – 9 Fiber type: (see Ultra-Fox Plus Fiber Performance Table, p.24)
- 62.5µm multimode = **WST**
- 50µm multimode = **AST**
- Single-mode = **SLS**

10 Ultra-Fox Plus fiber with 900µm tight-buffer = **5**

11 Jacket color: Black = **K**

12 Rating: Mil-Tac Cable Rating = **M**

Example: 12-fiber Mil-Tac breakout cable using 62.5µm Ultra-Fox Plus fiber, black jacket –

B	**–**	**0**	**1**	**2**	**C**	**W**	**S**	**T**	**5**	**K**	**M**