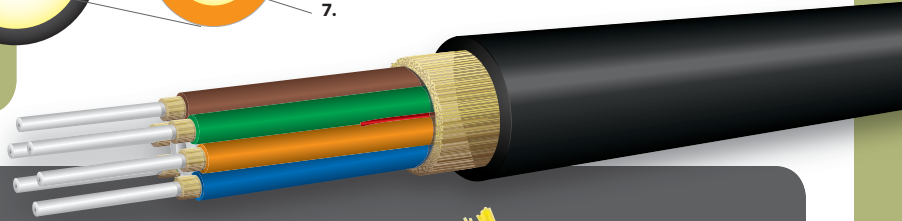
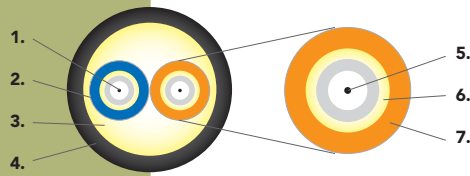


## (3.5e) B-Series Breakout – Mil-Tac Cables



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<br>MM (IN) | WEIGHT<br>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<br>MM (IN) | WEIGHT<br>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<br>MM (IN) | WEIGHT<br>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>B</b>  | <b>-</b> |   |   |   |   |   |   |   | <b>5</b> | <b>K</b> | <b>M</b> |
|-----------|---|----------|---|---|---|---|---|---|---|----------|----------|----------|
| Digit No: | 1   | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10       | 11       | 12       |
| 1 – 2     | Mil-Tac Breakout Series Ultra-Fox Plus= <b>B-</b>               |          |   |   |   |   |   |   |   |          |          |          |
| 3 – 5     | Fiber count: (See Cable Characteristics Chart) = <b>002-024</b> |          |   |   |   |   |   |   |   |          |          |          |
| 6         | Jacket type:  |          |   |   |   |   |   |   |   |          |          |          |
|           | Tactical Polyurethane = <b>C</b>                                |          |   |   |   |   |   |   |   |          |          |          |
|           | Low-Smoke Zero-Halogen Polyurethane = <b>G</b>                  |          |   |   |   |   |   |   |   |          |          |          |
|           | Flame-Retardant Tactical Polyurethane = <b>V</b>                |          |   |   |   |   |   |   |   |          |          |          |
| 7 – 9     | Fiber type: (see Ultra-Fox Plus Fiber Performance Table, p.24)  |          |   |   |   |   |   |   |   |          |          |          |
|           | 62.5µm multimode = <b>WST</b>                                   |          |   |   |   |   |   |   |   |          |          |          |
|           | 50µm multimode = <b>AST</b>                                     |          |   |   |   |   |   |   |   |          |          |          |
|           | Single-mode = <b>SLS</b>  |          |   |   |   |   |   |   |   |          |          |          |
| 10        | Ultra-Fox Plus fiber with 900µm tight-buffer = <b>5</b>         |          |   |   |   |   |   |   |   |          |          |          |
| 11        | Jacket color: Black = <b>K</b>                                  |          |   |   |   |   |   |   |   |          |          |          |
| 12        | Rating: Mil-Tac Cable Rating = <b>M</b>                         |          |   |   |   |   |   |   |   |          |          |          |

**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**