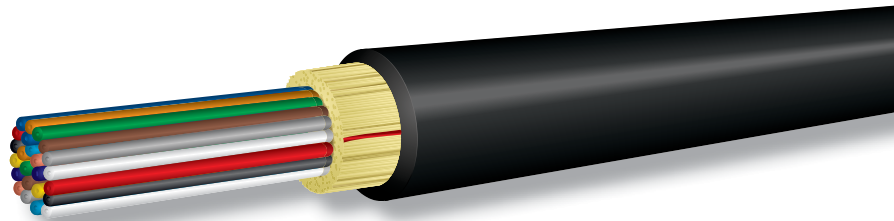
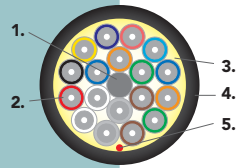


(3.2a) D-Series Distribution – Riser Rated Cables

1. Central Filler/Strength Member
2. Tight-Buffer Optical Fiber
3. Aramid Strength Member
4. Outer Jacket
5. Ripcord



Applications

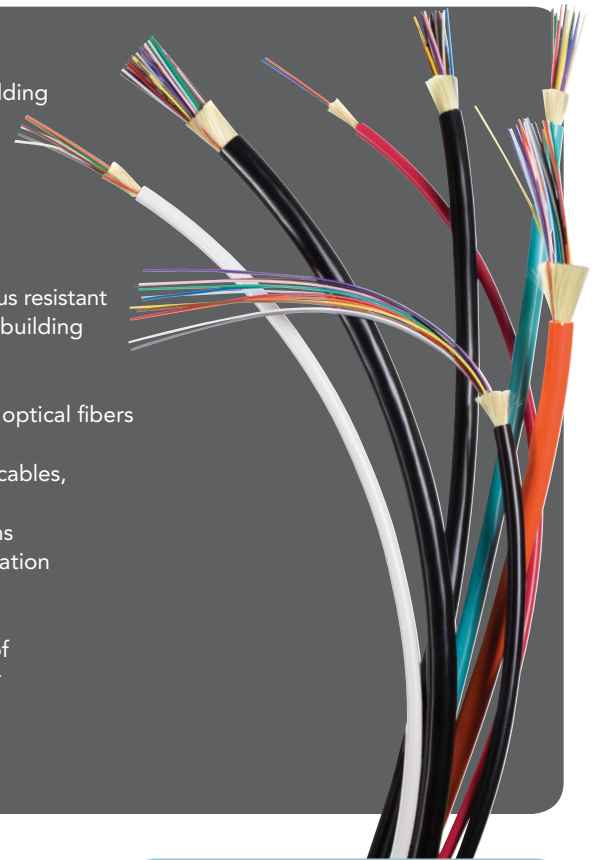
- Indoor/outdoor tight-buffered design allows cables to be installed in intra-building backbone and inter-building campus locations without costly transitions between cable types
- Ideal configuration for a single termination point requiring multiple fibers

Features

- High-performance components and construction
- Cable materials are indoor/outdoor – UL-listed OFNR and UV, water and fungus resistant
- UL listed in accordance with NEC section 770.179(b) for use in vertical runs in building riser shafts or from floor to floor
- Wide operating temperature range of -40°C to +85°C
- Helically stranded core for greater flexibility and mechanical protection of the optical fibers
- High strength-to-weight ratio
- 2–144 fiber configuration is smaller and lighter than comparable subgrouped cables, ideal for installation in areas with limited space or tight bends
- Can be armored for additional protection in direct burial and aerial installations
- Interlocking armor can be applied to cables as an alternative to conduit installation

Cost Savings

- 900µm buffer eliminates the need for costly and time-consuming installation of fanout kits or pigtail splices because connectors terminate directly to the fiber
- No need to splice outdoor cable to indoor cable at building entrance
- High crush resistance may eliminate the need for innerduct



Mechanical and Environmental Performance

| | INDOOR/OUTDOOR |
|--|---|
| Operating temperature | -40°C to +85°C |
| Storage temperature | -55°C to +85°C |
| Installation temperature (cable temp.) | -10°C to +60°C |
| Flame retardancy | UL listed type OFNR (UL 1666) and FT4 (CSA C22.2 No. 232) |
| Impact resistance | 1,500 impacts (EIA/TIA-455-25A) |
| Crush resistance | 1,800 N/cm (TIA/EIA-455-41A) |
| Flex resistance | 2,000 cycles (TIA/EIA-455-104A) |

Applicable Standards

OCC indoor/outdoor tight-buffered fiber optic cables meet the functional requirements of the following standards:

- ICEA-S-83-596
- ICEA-S-104-696
- GR-409-CORE Issue 2
- TIA-568
- TIA-598
- UL 1651
- UL 1666

(3.2a) D-Series Distribution – Riser Rated Cables

Cable Characteristics: D-Series Distribution Riser Cables

| 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* | 4.8 (0.19) | 22 (14) | 660 (150) | 180 (40) | 7.3 (2.9) | 4.8 (1.9) |
| 4 | 5.1 (0.20) | 24 (16) | 1,400 (310) | 450 (100) | 7.7 (3.0) | 5.1 (2.0) |
| 6 | 5.7 (0.22) | 32 (22) | 1,400 (310) | 450 (100) | 8.6 (3.4) | 5.7 (2.2) |
| 8 | 6.0 (0.24) | 34 (23) | 1,600 (360) | 525 (120) | 9.0 (3.5) | 6.0 (2.4) |
| 10 | 6.5 (0.26) | 43 (29) | 1,800 (400) | 600 (135) | 9.8 (3.8) | 6.5 (2.6) |
| 12** | 6.5 (0.26) | 38 (25) | 2,700 (600) | 600 (135) | 9.8 (3.8) | 6.5 (2.6) |
| 12*** | 7.3 (0.28) | 42 (32) | 2,700 (600) | 600 (135) | 10.8 (4.3) | 7.3 (2.9) |
| 18 | 7.3 (0.29) | 48 (32) | 2,700 (600) | 700 (160) | 11.0 (4.3) | 7.2 (2.9) |
| 24 | 8.9 (0.35) | 67 (45) | 3,000 (670) | 1,000 (220) | 13.4 (5.3) | 8.9 (3.5) |
| 30 | 9.1 (0.36) | 75 (50) | 3,000 (670) | 1,000 (220) | 13.1 (5.2) | 9.1 (3.6) |
| 36 | 9.1 (0.36) | 73 (49) | 3,000 (670) | 1,000 (220) | 13.7 (5.4) | 9.1 (3.6) |
| 48 | 10.1 (0.40) | 93 (63) | 4,200 (940) | 1,400 (310) | 15.2 (6.0) | 10.1 (4.0) |
| 60 | 12.3 (0.48) | 135 (91) | 4,800 (1,080) | 1,600 (360) | 18.5 (7.3) | 12.3 (4.8) |
| 72 | 14.0 (0.55) | 177 (119) | 5,400 (1,210) | 1,800 (400) | 21.0 (8.3) | 14.0 (5.5) |
| 84 | 14.4 (0.57) | 190 (128) | 6,000 (1,350) | 2,000 (450) | 21.6 (8.5) | 14.4 (5.7) |
| 96 | 16.0 (0.63) | 225 (151) | 6,000 (1,350) | 2,000 (450) | 24.1 (9.5) | 16.0 (6.3) |
| 108 | 16.8 (0.66) | 246 (165) | 6,000 (1,350) | 2,000 (450) | 25.3 (10.0) | 16.8 (6.6) |
| 120 | 17.9 (0.70) | 271 (182) | 6,000 (1,350) | 2,000 (450) | 26.8 (10.6) | 17.9 (7.0) |
| 132 | 17.8 (0.70) | 291 (195) | 6,000 (1,350) | 2,000 (450) | 26.8 (10.6) | 17.8 (7.0) |
| 144 | 20.3 (0.80) | 339 (228) | 6,000 (1,350) | 2,000 (450) | 30.5 (12.0) | 20.3 (8.0) |

NOTES:
 *-40°C to +70°C
 **Bend-tolerant 50µm
 ***Other standard fiber types
 Installation loads in excess of 2,700 N
 (600 lbs.) are not recommended.

Ordering Information

| | | | | | | | | | | | | |
|-----------|----------|----------|---|---|---|----------|---|---|---|----------|----|----------|
| | D | X | | | | D | | | | 9 | | R |
| Digit No: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

- 1 – 2 Distribution Series Ultra-Fox = **DX**
- 3 – 5 Fiber count: (see cable characteristics chart) = **002–144**
- 6 Jacket type: Indoor/Outdoor PVC = **D**
- 7 – 9 Fiber type: (see Laser Ultra-Fox Fiber Performance Table, p. 23)
- 10 Ultra-Fox fiber with 900µm tight-buffer = **9**
- 11 Standard jacket color: Black = **K**
 Optional colors available:
 62.5µm multimode (WLS, WLX): Orange = **O**
 50µm multimode (ALS, ALX): Orange = **O**
 50µm 10 Gigabit multimode (ALT, ALE): Aqua = **Q**
 Single-mode: Yellow = **Y**
- 12 Rating: Riser = **R**

Example: 12-fiber indoor/outdoor riser cable using 62.5µm Ultra-Fox fiber, black jacket –

| | | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| D | X | 0 | 1 | 2 | D | W | L | S | 9 | K | R |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|