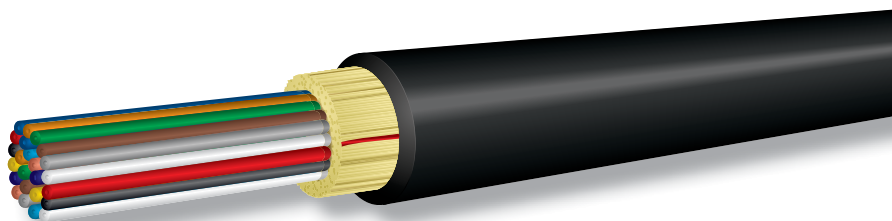
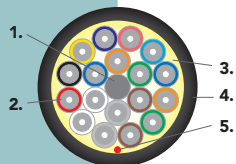


## (3.2a) D-Series Distribution – Riser Rated Cables

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



### Applications

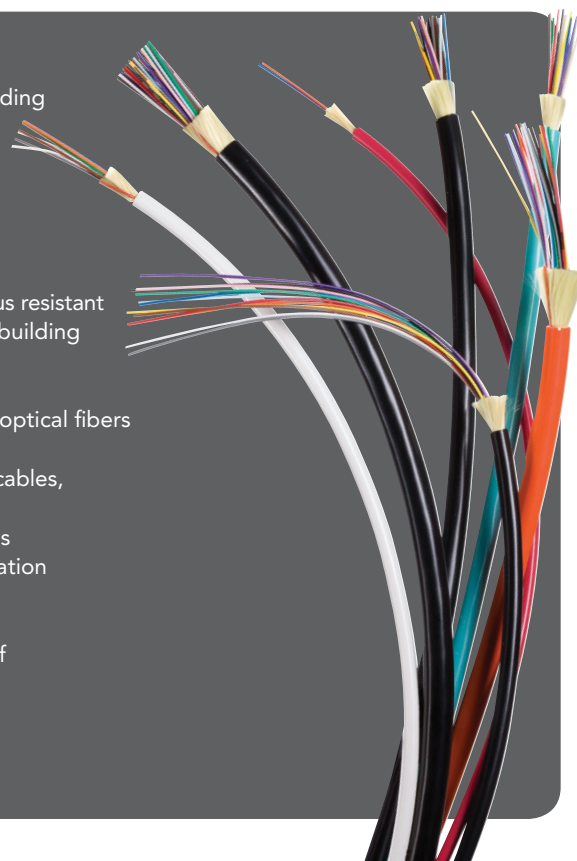
- Indoor/outdoor tight-buffered design allows cables to be installed in intra-building backbone and inter-building campus locations without costly transitions between cable types
- Ideal configuration for a single termination point requiring multiple fibers

### 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

	<b>D</b>	<b>X</b>				<b>D</b>				<b>9</b>		<b>R</b>
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 –

<b>D</b>	<b>X</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>D</b>	<b>W</b>	<b>L</b>	<b>S</b>	<b>9</b>	<b>K</b>	<b>R</b>
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