ICEA S-83-596 OFNR-144F Tight-Buffered

OFNR-144F Tight-Buffered Distribution

144-Fiber Multi-Subunit Tight-Buffered Riser Distribution Fiber

ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR · All-Dielectric Optical · −20…+70 °C



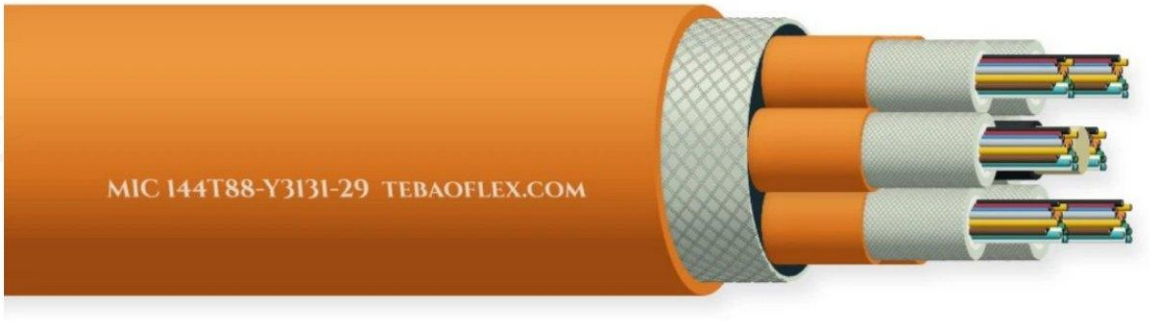
ICEA S-83-596 / ANSI/TIA-568 / UL | All-Dielectric Optical | −20…+70 °C

Application

144-Fiber Multi-Subunit Tight-Buffered Riser Distribution Fiber Optic Cable (OFNR-144F Tight-Buffered Distribution) engineered to ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR for All-Dielectric Optical service across −20…+70 °C, featuring dielectric

Typical uses: Commercial & Residential Building Distribution, Data Centers & Public Infrastructure, Fire-Safe Evacuation & Riser Shafts, Industrial Plant Balance-of-Plant Wiring, Automated Assembly & Packaging Lines

Construction





Cross-section, not to scale

1	Dielectric strength rod	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
2	Central element polymer jacket core insulation	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
3	Dielectric strength yarns	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
4	Flame-retardant subunit jacket	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
5	Dielectric strength elements	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
6	Flame-retardant outer jacket	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR

Technical data

Typical values

Rated voltage / duty	All-Dielectric Optical (ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR)	**Conductor construction**	Dielectric strength rod — Dielectric strength rod assembly per ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
Primary insulation / dielectric	Central element polymer jacket core insulation — Extruded Central element polymer jacket dielectric (individual core / group layer)	**Continuous operating temperature**	−20…+70 °C per ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	Flame-retardant outer jacket — Extruded Flame-retardant outer jacket protective layer (continuous layer)	**Minimum bending radius**	10 × OD (installed / static routing)
Layer count & geometry	6 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Outer Ø ≈ mm	Weight ≈ kg/km	Min. bend R fixed mm
OFNR-144F Tight-Buffered Distribution Standard Construction Schedule (All-Dielectric Optical · −20…+70 °C) 12 sizes				
☐ OFNR-144F Tight-Buffered Distribution 1×2×0.5	1×2×0.5 mm²	6.4	58	52
☐ OFNR-144F Tight-Buffered Distribution 2×2×0.5	2×2×0.5 mm²	9.2	112	74
☐ OFNR-144F Tight-Buffered Distribution 4×2×0.5	4×2×0.5 mm²	11.4	176	92
☐ OFNR-144F Tight-Buffered Distribution 8×2×0.5	8×2×0.5 mm²	14.8	295	118
☐ OFNR-144F Tight-Buffered Distribution 12×2×0.5	12×2×0.5 mm²	17.6	420	141
☐ OFNR-144F Tight-Buffered Distribution 1×2×1.0	1×2×1.0 mm²	7.6	86	61
☐ OFNR-144F Tight-Buffered Distribution 2×2×1.0	2×2×1.0 mm²	11.0	168	88
☐ OFNR-144F Tight-Buffered Distribution 4×2×1.0	4×2×1.0 mm²	13.5	264	108
☐ OFNR-144F Tight-Buffered Distribution 8×2×1.0	8×2×1.0 mm²	17.9	465	143
☐ OFNR-144F Tight-Buffered Distribution 1×2×1.5	1×2×1.5 mm²	8.5	114	68
☐ OFNR-144F Tight-Buffered Distribution 4×2×1.5	4×2×1.5 mm²	15.2	348	122
☐ OFNR-144F Tight-Buffered Distribution 12×2×1.5	12×2×1.5 mm²	23.4	860	187

– Additional pair/triad/quad counts (up to 48 pairs) and blue Ex-i intrinsically safe outer sheaths available per ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR.

Electrical parameters by conductor cross-section

5 sizes

Conductor size	Max. DC R_{20} Ω/km	Mutual cap. ≈ nF/km	Inductance ≈ mH/km
0.50 mm² (7/0.30 mm · AWG 20)	39.00	115	0.65
0.75 mm² (7/0.37 mm · AWG 18)	26.00	120	0.62
1.00 mm² (7/0.43 mm · AWG 17)	19.50	125	0.60
1.50 mm² (7/0.53 mm · AWG 16)	13.30	135	0.58
2.50 mm² (7/0.67 mm · AWG 14)	7.98	145	0.55

– L/R ratio ≤ 25 µH/Ω (0.5–1.0 mm²) and ≤ 40 µH/Ω (1.5 mm²) for intrinsically safe Ex-i circuits.

Standards and approvals

- ICEA S-83-596 Compliant
- EN 10204 3.1 Routine Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/ofnr-144f-multi-subunit-tight-buffered-riser-fiber-cable

Typical values for this cable type, based on ICEA S-83-596 / ANSI/TIA-568 / UL 1666 OFNR. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.