



DuraLife® 2-Hour Fire-Rated Circuit Integrity CI & CIC Cables

DuraLife-brand cables are 2-hour certified under the UL 2196 standard for fire-resistive cables, meet the mandatory NFPA 72: National Fire Alarm and Signaling Code pathway survivability circuit requirements, and are commonly found in fire alarm circuit integrity (NEC Article 760), emergency systems (NEC Articles 700 & 708) and health care facilities (NEC Article 517) applications in high-rises, hospitals, bridges, tunnels and transit, and other critical facilities.

DuraLife II FPLR & FPLR-CI Cables

Dual-rated FPLR CI/CIC cable. Can be used with or without conduit. UL Certified 2-hour fire rating for free-air applications as FPLR-CI. In conduit CIC solution must be installed per the UL-published FHIT.28C electrical circuit integrity systems reports.

Unshielded

- 🔥 CTU18A0102 18AWG/2C Solid
- 🔥 CTU16A0102 16AWG/2C Solid
- 🔥 CTU14A0102 14AWG/2C Solid (14AWG 7-Stranded available)
- 🔥 CTU12A0702 12AWG/2C 7-Stranded

Shielded

- 🔥 CTS18A0102 18AWG/2C Solid
- 🔥 CTS16A0102 16AWG/2C Solid
- 🔥 CTS14A0102 14AWG/2C Solid
- 🔥 CTS14A0702 14AWG/2C 7-Stranded

DuraLife II FPLR & FPLR-CI Multi-Conductor Cables

Dual-rated FPLR CI/CIC multi-conductor cable. Can be used with or without conduit. UL Certified 2-hour fire rating for free-air applications as FPLR-CI. In conduit CIC solution must be installed per the UL-published FHIT.28D electrical circuit integrity systems reports.

Unshielded

- 🔥 CTU18A0104 18AWG/4C Solid
- 🔥 CTU18A0106 18AWG/6C Solid
- 🔥 CTU18A0108 18AWG/8C Solid
- 🔥 CTU16A0104 16AWG/4C Solid
- 🔥 CTU16A0106 16AWG/6C Solid
- 🔥 CTU16A0108 16AWG/8C Solid
- 🔥 CTU14A0104 14AWG/4C Solid
- 🔥 CTU14A0106 14AWG/6C Solid
- 🔥 CTU14A0108 14AWG/8C Solid (14AWG 7-Stranded available)
- 🔥 CTU12A0704 12AWG/4C 7-Stranded
- 🔥 CTU12A0706 12AWG/6C 7-Stranded
- 🔥 CTU12A0708 12AWG/8C 7-Stranded

Shielded

- 🔥 CTS18A0104 18AWG/4C Solid
- 🔥 CTS18A0106 18AWG/6C Solid
- 🔥 CTS18A0108 18AWG/8C Solid
- 🔥 CTS16A0104 16AWG/4C Solid
- 🔥 CTS16A0106 16AWG/6C Solid
- 🔥 CTS16A0108 16AWG/8C Solid
- 🔥 CTS14A0104 14AWG/4C Solid
- 🔥 CTS14A0106 14AWG/6C Solid
- 🔥 CTS14A0108 14AWG/8C Solid (14AWG 7-Stranded available)

DuraLife FPLP-CI Cables

Plenum-rated, designed for free-air applications. FPLP is superior to FPL and FPLR. These cables are free-air tested without a certified hardware and components system so there is no corresponding FHIT report. Installed per NEC 760.24.

Unshielded

- 🔥 CFU18A0102 18AWG/2C Solid
- 🔥 CFU16A0102 16AWG/2C Solid
- 🔥 CFU14A0102 14AWG/2C Solid (14AWG 7-Stranded available)
- 🔥 CFU12A0702 12AWG/2C 7-Stranded

Shielded

- 🔥 CFS18A0102 18AWG/2C Solid
- 🔥 CFS16A0102 16AWG/2C Solid
- 🔥 CFS14A0102 14AWG/2C Solid (14AWG 7-Stranded available)
- 🔥 CFS12A0702 12AWG/2C 7-Stranded

*FPLP-CI cables are not designed to be sealed in conduit for runs longer than 8 feet.

Northern California: (866) 227-7699
Southern CA/Arizona: (800) 659-3655



DuraLife® II Dual Rated CI/CI Free Air

UL 2196 2-Hour Fire Resistive Cable

FPLR Shielded / Unshielded 105°C/300V

SPECIFICATIONS

Certified to the harsh requirements of the UL2196 Test for Fire Resistive Cables, the DuraLife II Dual Rated CI /CI cables ensure two-hour operation of critical systems in the event of a fire. The dual rating design offers the most versatility in meeting code survivability requirements in both in-conduit and free air installation scenarios.

Description: Dual Rated CI/CIC Cable. UL/CAN (ULC) 2196 Certified/UL 1424 Listed. FHIT/FHIT7 (ULC) System No. 28C. Low smoke, zero halogen design (LSZH).

Sizes Available: 2 conductor, 18-12 AWG unshielded; 18-14 AWG shielded.



CONSTRUCTION:

- **Conductor:** Oxygen-free bare copper (OFHC), solid and/or stranded
- **Insulation:** Proprietary ceramifiable silicone rubber
- **Assembly:** Color-coded black/red leads, 3 twists/foot
- **Jacket:** Red low smoke/zero halogen FRPE (black jacket available/special order)

APPLICATIONS:

- Hospitals & Healthcare Facilities
- High Rise & Mix use buildings
- Universities & College Campuses
- Stadiums, Casinos, places of assembly
- Transit bridges, tunnels and subways
- Government Facilities

CRITICAL SYSTEMS:

- Fire Alarm and EVAC Systems
- Smoke evacuation and control
- Fan & Pressurization systems
- Strobes & notification appliances
- Area of Refuge Systems
- Emergency lighting

COMPLIANCE & PERFORMANCE FEATURES:

- UL 1424 Listed FPLR/FPLR-CI (dual-rated) for Power-Limited Fire Alarm Circuits. Riser Rated. 300V/105°C classified.
- UL/CAN (ULC) Certified to UL 2196 2-hour fire rating in FHIT/FHIT7 28C
- CSA Certified FAS90; CSA Std. C22.2 No. 208-14 FT4-ST1
- UL Certified 2-hour fire rating as FPLR-CI for Free Air installed per NEC code
- UL 444 Listed "CMR/CMR-CI" as Communications Cable
- Fire alarm circuit integrity, emergency systems, and healthcare facilities (NEC Articles 760, 700 & 517)
- Meets National Fire Protection Code (NFPA 70 & 72) fire alarm survivability circuit requirements
- Meets National Fire Protection Code (NFPA 130 & 502) fire alarm survivability circuit requirements
- Compliance tested to UL 1424 as suitable for use in applications requiring wet rating
- Tested for Sunlight Resistance in compliance with UL 2556 requirements
- Suitable for 2-hour certified fire-resistive applications in EMT or IMC conduit systems
- UL Listed File No. E-241484. UL Fire Directory R-21213.
- Splice Allowance

DURALIFE®



Survivable Cable Solutions

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DuraLife® II Dual Rated CIC/CI Free Air UL 2196 2-Hour Fire Resistive Cable FPLR Shielded/Unshielded 105°C/300V

SPECIFICATIONS

HARDWARE CERTIFIED: (Refer to DuraLife® II Installation Guide for additional details)

- **EMT/IMC Conduit:** Wheatland/Western Tube
- **EMT/IMC Conduit:** Allied/Columbia (EMT: E-Z Pull Brand)
- **EMT Compression Couplings:** Hubbell-Raco or Halex
- **IMC Compression Coupling:** Hubbell-Raco
- **NEMA 1 Splice Enclosure/Pull Box:** Eaton/Cooper (system use only)
- Standard UL listed steel 4/S Utility Box (CI only)
- **Box Fittings:** Compression - Cooper Crouse-Hinds (EMT); Hubbell-Raco (EMT/IMC) Set Screw - Hubbell-Raco (EMT/IMC)
- **Splice Connector:** 3M Butt-Type Crimp Terminals
- **Splice Tapes - 1":** 3M Silicone; St. Gobain Fiberglass Tape
- **Pulling Lubricant:** Polywater LZ

NON-SHIELDED: RADIX WIRE-II DURALIFE-II™ E241484 2/C #AWG FPLR/FPLR-CI/CMR 300V/105C / (UL) 2196 (ULC) 2-HR FIRE RESISTIVE CABLE FOR USE IN FHIT/FHIT7 ELECTRIC CIRCUIT INTEGRITY SYSTEM #28C. SEE UL FIRE RESISTANCE DIRECTORY R21213 // CSA LL13427 FAS90 300V FT4-ST1 Sun Res Wet (MONTH/YEAR) CI - NYC certified fire alarm cable (XXXX FT)

RADIX P/N	#COND	AWG	SOLID OR STRANDED	NOMINAL O.D. (INCH)	NET WEIGHT (LBS PER MFT)	RESISTANCE (OHMS/MFT)	NOMINAL CAPACITANCE (pF/FT)
CTU18A0102	2	18	Solid	.305	53	6.48	14.4
CTU16A0102	2	16	Solid	.335	62	3.99	15.3
CTU14A0102	2	14	Solid	.344	77	2.57	17.1
CTU14A0702	2	14	Stranded	.350	77	2.60	17.3
CTU12A0702	2	12	Stranded	.392	98	1.64	17.6

SHIELDED: RADIX WIRE-II DURALIFE-II™ E241484 2/C #AWG FPLR/FPLR-CI/CMR/SHLD 300V/105C / (UL) 2196 (ULC) 2-HR FIRE RESISTIVE CABLE FOR USE IN FHIT/FHIT7 ELECTRIC CIRCUIT INTEGRITY SYSTEM #28C. SEE UL FIRE RESISTANCE DIRECTORY R21213 // CSA LL13427 FAS90 300V FT4-ST1 Sun Res Wet (MONTH/YEAR) CI - NYC certified fire alarm cable (XXXX FT)

RADIX P/N	#COND	AWG	SOLID OR STRANDED	NOMINAL O.D. (INCH)	NET WEIGHT (LBS PER MFT)	RESISTANCE (OHMS/MFT)	NOMINAL CAPACITANCE (pF/FT)
CTS18A0102	2	18	Solid	.335	55	6.48	18.4
CTS16A0102	2	16	Solid	.360	65	3.99	19.1
CTS14A0102	2	14	Solid	.390	79	2.57	21.4
CTS14A0702	2	14	Stranded	.393	79	2.60	21.7

*Min-Max Spec Range ± .020

System Fill Allowances (for in-conduit installations per FHIT/FHIT7 28C)

	1/2" (EMT only)	3/4"	1"	1 1/4"	1 1/2"	2"
Part No.	No. of Cables Max Fill					
CTU18A0102	1	2	4	6	10	N/A
CTU16A0102	1	1	3	5	7	10
CTU14A0102	1	1	3	5	7	10
CTU12A0102	1	1	2	4	5	10V/9H
CTS18A0102	1	1	3	5	8	N/A
CTS16A0102	1	1	3	5	7	10
CTS14A0102	N/A	1	2	4	6	10



SPECIFICATIONS

DuraLife® II Dual Rated CIC/CI Multi-Conductor FPLR/FPLR-CI Shielded/Unshielded Fire Resistive Cables

Certified to the harsh requirements of the UL 2196 Test for Fire Resistive Cables, the DuraLife II Dual Rated CIC /CI multi-conductor cables ensure two-hour operation of critical systems in the event of a fire. The dual rating design offers the most versatility in meeting code survivability requirements in both in-conduit and free air installation scenarios.



Description: Dual Rated Multi-Conductor CI/CIC Cable. UL 2196 Certified/UL 1424 Listed. FHIT System No. 28D. Low smoke, zero halogen design (LSZH).

Sizes Available: 18-12 AWG unshielded; 18-14 AWG shielded. 4/C, 6/C, and 8/C Constructions

CONSTRUCTION:

- **Conductor:** Oxygen-free bare copper (OFHC), solid and/or stranded
- **Insulation:** Proprietary ceramifiable silicone rubber
- **Assembly:** Numerically printed black/red paired leads
- **Jacket:** Red low smoke/zero halogen FRPE (black jacket available/special order)

APPLICATIONS:

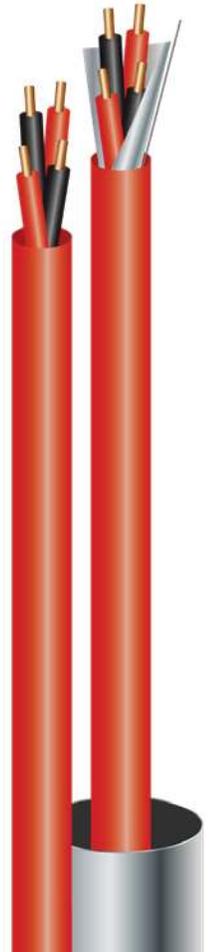
- Hospitals & Healthcare Facilities
- High Rise & Mix use buildings
- Universities & College Campuses
- Stadiums, Casinos, places of assembly
- Government Facilities

CRITICAL SYSTEMS:

- Fire Alarm and EVAC Systems
- Smoke evacuation and control
- Fan & Pressurization systems
- Strobes & notification appliances
- Area of Refuge Systems
- Emergency lighting

COMPLIANCE & PERFORMANCE FEATURES:

- UL 1424 Listed FPLR/FPLR-CI (dual-rated) for Power-Limited Fire Alarm Circuits. Riser Rated. 300V/105°C classified.
- UL Certified to UL 2196 2-hour fire rating in FHIT 28D
- UL Certified 2-hour fire rating as FPLR-CI for Free Air installed per NEC code
- Fire alarm circuit integrity, emergency systems, and healthcare facilities (NEC Articles 760, 700 & 517)
- Meets National Fire Protection Code (NFPA 70 & 72) fire alarm survivability circuit requirements
- Compliance tested to UL 1424 as suitable for use in applications requiring wet rating
- Tested for Sunlight Resistance in compliance with UL 2556 requirements
- Suitable for 2-hour certified fire-resistive applications in EMT or IMC conduit systems
- UL Listed File No. E-241484. UL Fire Directory R-21213.
- Splice Allowance



SPECIFICATIONS

DuraLife® II Dual Rated CIC/CI Multi-Conductor FPLR/FPLR-CI Shielded/Unshielded Fire Resistive Cables

HARDWARE CERTIFIED: (Refer to DuraLife® II Multi-Conductor Installation Guide for additional details)

- **EMT/IMC Conduit:** Wheatland/Western Tube
- **EMT/IMC Conduit:** Allied/Columbia (EMT: E-Z Pull Brand)
- **EMT Compression Couplings:** Hubbell-Raco or Halex
- **NEMA 1 Splice Enclosure/Pull Box:** Eaton/Cooper
- **Pulling Lubricant:** Polywater LZ
- **Box Fitting Connectors:**
 - » Compression - Cooper Crouse-Hinds (EMT); Hubbell-Raco (EMT/IMC)
 - » Set Screw - Hubbell-Raco (EMT/IMC)
- **Splice Connector:** 3M Butt-Type Crimp Terminals
- **Splice Tapes - 1":** 3M Silicone; St. Gobain Fiberglass Tape

NON-SHIELED: RADIX WIRE-II DURALIFE-II™ E241484 #/C #AWG FPLR/FPLR-CI / 300V/105C / (UL) 2196 2-HR FIRE RESISTIVE CABLE FOR USE IN FHIT ELECTRIC CIRCUIT INTEGRITY SYSTEM #28D. SEE UL FIRE RESISTANCE DIRECTORY R21213 // Sun Res Wet (MONTH/YEAR) (XXXX FT)

RADIX P/N	AWG/COND.	SOLID OR STRANDED	NOMINAL O.D. (INCH)	COND. RESISTANCE (OHMS/FT)	NOM. CAP. (pF/FT) (per pair)	EMT/IMC UNSHIELDED MAX CABLE FILL ALLOWANCE (for in-conduit installations per FHIT 28D)				
						¾"	1"	1 ¼"	1 ½"	2"
CTU18A0104	18/4C	Solid	.366	6.48	14.4	1	2	4	6	10
CTU18A0106	18/6C	Solid	.444	6.48	14.4	1	1	3	4	7
CTU18A0108	18/8C	Solid	.518	6.48	14.4	X	1	2	3	5
CTU16A0104	16/4C	Solid	.405	3.99	15.3	1	2	3	4	8
CTU16A0106	16/6C	Solid	.485	3.99	15.3	X	1	2	3	5
CTU16A0108	16/8C	Solid	.575	3.99	15.3	X	1	1	2	4
CTU14A0104	14/4C	Solid	.431	2.57	17.1	1	1	3	4	7
CTU14A0106	14/6C	Solid	.523	2.57	17.1	X	1	2	3	5
CTU14A0108	14/8C	Solid	.629	2.57	17.1	X	X	1	2	3
CTU12A0704	12/4C	7-Strand	.483	1.64	17.6	X	1	2	3	5
CTU12A0706	12/6C	7-Strand	.633	1.64	17.6	X	X	1	2	3
CTU12A0708	12/8C	7-Strand	.708	1.64	17.6	X	X	1	1	2

*14AWG 7-Stranded Unshielded available

SHIELED: RADIX WIRE-II DURALIFE-II™ E241484 #/C #AWG FPLR/FPLR-CI / SHLD./ 300V/105C / (UL) 2196 2-HR FIRE RESISTIVE CABLE FOR USE IN FHIT ELECTRIC CIRCUIT INTEGRITY SYSTEM #28D. SEE UL FIRE RESISTANCE DIRECTORY R21213 // Sun Res Wet (MONTH/YEAR) (XXXX FT)

RADIX P/N	#COND	SOLID OR STRANDED	NOMINAL O.D. (INCH)	COND. RESISTANCE (OHMS/FT)	NOM. CAP. (pF/FT) (per pair)	EMT/IMC SHIELED MAX CABLE FILL ALLOWANCE (for in-conduit installations per FHIT 28D)				
						¾"	1"	1 ¼"	1 ½"	2"
CTS18A0104	18/4C	Solid	.389	6.48	18.4	1	2	4	5	5
CTS18A0106	18/6C	Solid	.472	6.48	18.4	1	1	2	3	3
CTS18A0108	18/8C	Solid	.551	6.48	18.4	X	1	1	2	2
CTS16A0104	16/4C	Solid	.411	3.99	19.1	1	2	3	5	8
CTS16A0106	16/6C	Solid	.492	3.99	19.1	X	1	2	3	5
CTS16A0108	16/8C	Solid	.583	3.99	19.1	X	1	1	2	4
CTS14A0104	14/4C	Solid	.463	2.57	21.4	1	1	2	4	6
CTS14A0106	14/6C	Solid	.562	2.57	21.4	X	1	1	2	4
CTS14A0108	14/8C	Solid	.676	2.57	21.4	X	X	1	1	3

SPECIFICATIONS



UL 2196 2-HR CERTIFIED / UL 1424 LISTED.
LOW SMOKE / PLENUM RATED CONSTRUCTION

Shielded & Unshielded - 18 AWG, 16AWG, 14AWG, 12AWG; 2-conductor.
NEC Type FPLP-CI; Circuit-Integrity Cables; Horizontal and Vertical Applications Certified

CERTIFICATION LISTING:

All Constructions; Free-Air application with installation requirements per NEC Article 760.24 (2017). Low smoke. PVC insulation and jacketing. Splice allowed w/standard type-4S utility box. See Radix DuraLife® FPLP-CI Splice and Application Guide for splicing instructions.

COMPLIANCE:

- UL 1424 Listed FPLP for Power-Limited Fire Alarm Circuits; 300V/75°C classified.
- UL Certified to UL 2196 2-hour fire rating
- Fire alarm circuit integrity, emergency systems, and healthcare facilities (NEC Articles 760, 700 & 517).
- Meets NFPA 262 for plenum rating
- Meets UL 444 for "Communication Cables"
- Meets National Fire Protection Code (NFPA 72) fire alarm survivability circuit requirements.
- Suitable for 2-hr. certified fire-resistive free-air applications
- Fire-resistive certified for Power-Limited system use at 50V phase-to-phase utilization voltages.
- UL Listed File No. E-241484; E-494543.



UNSHIELDED PRINT: RADIX WIRE-II DURALIFE™ E241484 2/C # AWG FPLP-CI/CMP-CI E494543 75C / (UL) 2196 CLASSIFIED 2 HOUR CERTIFIED (MONTH/YEAR) CI - NYC certified fire alarm cable (XXXX FEET)

RADIX P/N	#COND	AWG	SOLID OR STRANDED	NOMINAL O.D (INCH).	NET WEIGHT (LBS/ MFT)	RESISTANCE (OHMS/MFT)	NOMINAL CAPACITANCE (pF/FT)
CFU18A0102	2	18	Solid	.280"	41	6.48	11.17
CFU16A0102	2	16	Solid	.308"	45	3.99	12.39
CFU14A0102	2	14	Solid	.320"	50	2.57	14.28
CFU14A0702	2	14	Stranded	.330"	52	2.60	14.76
CFU12A0702	2	12	Stranded	.368"	61	1.64	15.93

SHIELDED PRINT: RADIX WIRE-II DURALIFE™ E241484 2/C # AWG FPLP-CI/CMP-CI/SHLD./ E494543 75C / (UL) 2196 CLASSIFIED 2 HOUR CERTIFIED (MONTH/YEAR) CI - NYC certified fire alarm cable (XXXX FEET)

RADIX P/N	#COND	AWG	SOLID OR STRANDED	NOMINAL O.D (INCH).	NET WEIGHT (LBS/ MFT)	RESISTANCE (OHMS/MFT)	NOMINAL CAPACITANCE (pF/FT)
CFS18A0102	2	18	Solid	.325"	42	6.48	13.40
CFS16A0102	2	16	Solid	.330"	46	3.99	14.86
CFS14A0102	2	14	Solid	.345"	51	2.57	17.14
CFS14A0702	2	14	Stranded	.355"	54	2.60	17.71
CFS12A0702	2	12	Stranded	.375"	63	1.64	19.11



DuraLife-brand cables are 2-hour certified under the UL 2196 standard for fire-resistive cables, meet the mandatory NFPA 72: National Fire Alarm and Signaling Code pathway survivability circuit requirements, and are commonly found in fire alarm circuit integrity (NEC Article 760), emergency systems (NEC Articles 700 & 708) and health care facilities (NEC Article 517) applications in high-rises, hospitals, bridges, tunnels and transit, and other critical facilities.

SELECTION GUIDE

	DuraLife® II FPLR Dual-Rated CI/CIC	DuraLife® FPLP-CI	DuraLife® II Multi-Conductor FPLR Dual-Rated CI/CIC
Installation Method	In conduit per FHIT 28C or Free Air per NEC 760.24	NEC Article 760.24	In conduit per FHIT 28D or Free Air per NEC 760.24
2 Hour Fire Rating	UL 2196 Certified	UL 2196 Certified	UL 2196 Certified
Voltage Rating	300 Volts	300 Volts	300 Volts
Installation Usage	Ducts or Plenums, Risers or General Purpose (in conduit)	Plenums, Risers, or General Purpose (without conduit)	Ducts or Plenums (in conduit), Risers or General Purpose
Constructions	18 AWG to 14 AWG Shielded and 18 AWG to 12 AWG Unshielded - 2/C	18 AWG to 12 AWG Shielded and Unshielded - 2/C	18 AWG to 14 AWG Shielded and 18 AWG to 12 AWG Unshielded - 4/C, 6/C, 8/C
Plenum	With Conduit	NFPA 262	With Conduit
2 Hour Rated Splice	Horizontal and Vertical	Horizontal	Horizontal and Vertical
Twists per Foot	3	3	3
Standard Lengths	1000 & 5000 ft.	1000 & 5000 ft.	1000 & 5000 ft.

