

# SPECIFICATIONS

# DuraLife®-W FPL Shielded

## UL 2-Hour Fire Certified FIRE RESISTIVE ALARM CABLES

### FHIT & FHIT7.28B Electrical Circuit Integrity System



UL CERTIFIED TO UL 2196 & CAN/ULC-S139 / UL 1424 LISTED. FHIT & FHIT7 SYSTEMS NO. 28B. LOW SMOKE, ZERO HALOGEN DESIGN (LSOH). WET RATED.

Shielded - 18AWG, 16AWG, 14AWG; 2-conductor; Electrical Circuit Integrity System. NEC Type FPL; for use in electrical circuit protective systems.

## DURALIFE APPLICATIONS

- Hospitals and Healthcare Facilities
- High Rises
- Sports Arenas
- Critical or Federal Buildings
- Bridges, Tunnels and Transit

## COMPLIANCE:

- UL 1424 Listed FPL for Power-Limited Fire Alarm Circuits; 300V/90°C classified
- UL Certified to UL 2196 or CAN/ULC-S139 2-hour fire rating in FHIT & FHIT7 System 28B.
- CSA Std. C22.2 No. 208-14 Fire Alarm & Signal Cable.
- 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.
- Suitable for 2-hr. certified fire-resistive applications in EMT conduit.\*
- Fire certified for Power-Limited system use at 50V phase-to-phase utilization voltages
- UL Listed File No. E-241484. UL Fire Directory R-21213.
- Suitable for use in wet locations.

\* DuraLife® FPL products are not approved for use in RMC or IMC conduit systems

## HARDWARE SYSTEM CERTIFIED: (Refer to DuraLife®-W Installation Guide for Item Details)

- EMT Conduit --- Wheatland EMT or Allied/Columbia EMT
- EMT Couplings --- Hubbell-Raco or Halex
- Enclosure Compression Fittings --- Cooper Crouse-Hinds
- NEMA 1 Splice Enclosure/Pull Box --- Cooper B-Line Pull box size up to 12x12x4 for 16AWG and 14AWG. Splice box size must be 8x8x4.)
- Enclosure Set-screw Fittings --- Hubbell-Raco
- Copper Off-Set Fixed Lug Connector with set screw; --- Penn Union (16AWG - 14AWG)
- Mechanical Connector --- Ceramic Wire Nut; Proheat (18AWG, 16AWG, 14AWG)
- Pulling Lubricant --- Polywater J, LZ

\*Certified assemblies, no substitute of any kind can be made

## CONSTRUCTION:

- Oxygen-free bare copper (OFHC) conductors, solid and stranded; proprietary ceramifiable silicone rubber insulation; color-code black and red insulation on leads, aluminum/aramid shield, and 22AWG solid TC drain
- Low smoke - zero halogen FRPE outer jacket. Black jacket color available.
- Standard construction is 3 twists per foot.
- Patented



### Certifications & EMT Fill Listings

CERTIFICATIONS	18 AWG	16 AWG	14 AWG
Solid Conductor	✓	✓	✓
Stranded Conductor	-	-	✓
FILL RATES	18 AWG	16 AWG	14 AWG
¾" EMT Horizontal and Vertical	Up to 2 cables	1 cable	1 cable
1" EMT Horizontal and Vertical	-	Up to 2 cables	Up to 2 cables
1 ¼" EMT Horizontal	-	Up to 4 cables	Up to 4 cables
1 ¼" EMT Vertical	-	Up to 3 cables	Up to 3 cables
1 ½" EMT Horizontal	-	Up to 6 cables	Up to 6 cables
1 ½" EMT Vertical	-	Up to 4 cables	Up to 4 cables
2" EMT Horizontal	-	Up to 10 cables	-
2" EMT Vertical	-	Up to 8 cables	Up to 10 cables



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UL 2-Hour Fire Certified FIRE RESISTIVE ALARM CABLES  
FHIT & FHIT7.28B Electrical Circuit Integrity System

## PACKAGING:

Available on 1,000 ft. and 5,000 ft. standard length reels. Smaller reels available from distributors.

RADIX WIRE-II DURALIFE -W E241484 2/C 18 AWG FPL 90C / (UL) 2196/(ULC) CAN/S139 / CLASSIFIED 2 HR. FIRE RESISTIVE CABLE FOR USE IN FHIT AND FHIT7 ELECTRICAL CIRCUIT INTEGRITY SYSTEM 28B. SEE FIRE RESISTANCE DIRECTORY R21213. CSA LL13427 FAS90 300VFT1 (MONTH/YEAR)

RADIX P/N	#COND	AWG	NOMINAL INSUL THICKNESS (INCH)	NOMINAL JACKET THICKNESS (INCH)	NOMINAL O.D.	MIN. - MAX. SPEC. RANGE	NET WEIGHT (LBS PER MFT)	COPPER LBS/MFT	CAPACITANCE (pF/Ft.)	IMPEDANCE
CIS18A0102	2	18 SOLID	0.032"	0.035"	0.326"	+/-0.020"	51	9.8	19.2	94.7

RADIX WIRE-II DURALIFE -W E241484 2/C 16 AWG FPL 90C / (UL) 2196/(ULC) CAN/S139 / CLASSIFIED 2 HR. FIRE RESISTIVE CABLE FOR USE IN FHIT AND FHIT7 ELECTRICAL CIRCUIT INTEGRITY SYSTEM 28B. SEE FIRE RESISTANCE DIRECTORY R21213. CSA LL13427 FAS90 300VFT1 (MONTH/YEAR)

RADIX P/N	#COND	AWG	NOMINAL INSUL THICKNESS (INCH)	NOMINAL JACKET THICKNESS (INCH)	NOMINAL O.D.	MIN. - MAX. SPEC. RANGE	NET WEIGHT (LBS PER MFT)	COPPER LBS/MFT	CAPACITANCE (pF/Ft.)	IMPEDANCE
CIS16A0102	2	16 SOLID	0.032"	0.035"	0.340"	+/-0.020"	60	16.4	21.6	85.2

RADIX WIRE-II DURALIFE -W E241484 2/C 14 AWG FPL 90C / (UL) 2196/(ULC) CAN/S139 / CLASSIFIED 2 HR. FIRE RESISTIVE CABLE FOR USE IN FHIT AND FHIT7 ELECTRICAL CIRCUIT INTEGRITY SYSTEM 28B. SEE FIRE RESISTANCE DIRECTORY R21213. CSA LL13427 FAS90 300VFT1 (MONTH/YEAR)

RADIX P/N	#COND	AWG	NOMINAL INSUL THICKNESS (INCH)	NOMINAL JACKET THICKNESS (INCH)	NOMINAL O.D.	MIN. - MAX. SPEC. RANGE	NET WEIGHT (LBS PER MFT)	COPPER LBS/MFT	CAPACITANCE (pF/Ft.)	IMPEDANCE
CIS14A0702	2	14/7	0.032"	0.035"	0.380"	+/-0.020"	78	25.2	25.9	69.4
CIS14A0102	2	14 SOLID	0.032"	0.035"	0.365"	+/-0.020"	75	24.8	25.0	75.1

## CERTIFICATION LISTINGS:

**18AWG** solid OFHC; 2-conductor vertical straight-through w/ couplings in ¾" EMT conduit; 72" max. support spacing, pull box, 2 cables  
**18AWG** solid OFHC; 2-conductor horizontal straight-through w/ couplings in ¾" EMT conduit; 48" max. support spacing  
**18AWG** solid OFHC; 2-conductor horizontal straight-through w/ pull box in ¾" EMT conduit; 48" max. support spacing  
**18AWG** solid OFHC; 2-conductor horizontal w/ mechanical splice in ¾" EMT conduit; 48" max. support spacing  
**18AWG** solid OFHC; 2-conductor vertical w/ mechanical splice in ¾" EMT conduit; 72" max. support spacing

**16AWG** solid OFHC; 2-conductor vertical straight-through w/ couplings in 1" EMT conduit; 72" max. support spacing, pull box, 2 cables  
**16AWG** solid OFHC; 2-conductor horizontal straight-through w/ couplings in ¾" EMT conduit; 48" max. support spacing  
**16AWG** solid OFHC; 2-conductor horizontal straight-through w/ pull box in ¾" EMT conduit; 48" max. support spacing  
**16AWG** solid OFHC; 2-conductor horizontal w/ mechanical splice in ¾" EMT conduit; 48" max. support spacing

**14AWG** 7-strand OFHC; 2-conductor vertical straight-through w/ couplings in 1" EMT conduit; 72" max. support spacing, pull box, 2 cables  
**14AWG** 7-strand OFHC; 2-conductor horizontal straight-through w/ couplings in ¾" EMT conduit; 48" max. support spacing  
**14AWG** 7-strand OFHC; 2-conductor horizontal straight-through w/ pull box in ¾" EMT conduit; 48" max. support spacing  
**14AWG** 7-strand OFHC; 2-conductor horizontal w/ mechanical splice in ¾" EMT conduit; 48" max. support spacing

**14AWG** solid OFHC; 2-conductor vertical straight-through w/ couplings in 1" EMT conduit; 72" max. support spacing, pull box, 2 cables  
**14AWG** solid OFHC; 2-conductor horizontal straight-through w/ couplings in ¾" EMT conduit; 48" max. support spacing  
**14AWG** solid OFHC; 2-conductor horizontal straight-through w/ pull box in ¾" EMT conduit; 48" max. support spacing  
**14AWG** solid OFHC; 2-conductor horizontal w/ mechanical splice in ¾" EMT conduit; 48" max. support spacing

Note: 18AWG, 16AWG, and 14AWG cables may be installed within the same raceway when not exceeding the number of cables associated with the 14AWG installation.

All dimensions listed above are nominal  
 Information included in this catalog is intended as a guideline only. for applications that require tight tolerances. Please contact the Radix factory for dimensional verification. Information herein is believed to be accurate as of publication date; however, if an error exists it is unintentional and Radix Wire is not responsible for any claim traceable to such error.



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