

# Comtran's VITALink® 2 Hour Fire Resistive CIC & CI Free Air Cables *Your trusted solution for fire safety*



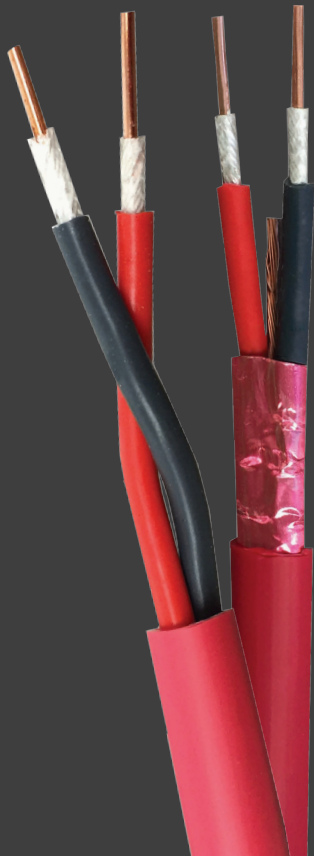
# When it comes to life and fire safety, trust the experts!

Comtran has been a trusted source in the security and fire alarm market for over 30 years. Relying on this history and experience helped us to develop the most comprehensive circuit integrity cables on the market. Our VITALink® 2 Hour Fire Resistive cables are the only dual listed CI/CIC cable, offering a versatile fire resistive solution for our customers.

The CI rating allows the cable to be installed in "free air," or without conduit, in riser and non-plenum airspace horizontal installations per NEC code.

The CIC (Circuit Integrity in Conduit) rating requires use of specified hardware and installation instructions. The cable must be installed as a complete system as outlined in UL system FHI7.40A or FHI7.40A.

With either installation, VITALink® CI/CIC cable will continue to operate for at least 2 hours in a fire, supporting critical life safety applications where evacuation times are beyond the capabilities of standard fire alarm cabling or when partial evacuation or relocation is required.



## When lives and safety are on the line, choose VITALink® 2 Hour Fire Resistive cable!

- Withstands heat up to 1850°F and ensures 2 hour signal protection
- Dual listed as CI/CIC - the same cable can be installed with or without conduit
- Available in shielded and unshielded constructions
- Solid or stranded bare copper conductors available
- Shielded & Unshielded cables can be used within the same conduit
- Approved for use in the United States (CI/CIC) and Canada (In Conduit only)
- Sunlight resistant and wet location rated
- Easy to install with a flexible construction
- No special tools or training required
- No termination kits, brass fittings, or stainless steel straps needed
- All required hardware components are commercially available off-the-shelf

### FEATURING:

- The best conduit fill in the industry
- The best vertical installation distance
- The best product spectrum
- The most listings and the best ratings

# About VITALink® Cable

## CONSTRUCTION:

- Conductors: 12-18 AWG Solid OFHC Copper and 12-16 AWG Stranded OFHC Copper
- Insulation: Proprietary Low Smoke, Zero Halogen Thermoset Fire-Roc™
- Core Assembly: Twisted Pair consisting of black and red wires
- Drain Wire: Stranded bare copper (Shielded constructions only)
- Shield: Copper/Polyester tape (Shielded constructions only)
- Jacket: Low Smoke, Zero Halogen Polyolefin Red (Sequential Footage Marker Provided Every 2 Feet)

## HARDWARE CERTIFIED (In Conduit only):

- ½ inch, ¾ inch, 1 inch, 1 ¼ inch, 1 ½ inch, and 2 inch EMT Conduit  
**Allied Tube & Conduit E-Z Pull® EMT, Columbia-MBF E-Z Pull® EMT, or Wheatland Tube FasTrak™ Plus EMT**
- ½ inch, ¾ inch, 1 inch, 1 ¼ inch, 1 ½ inch, and 2 inch Steel Compression Couplings  
**RACO or Thomas & Betts Corp.**
- Wiegmann NEMA 1 Enclosure/Pull Box
- Amtec wire mesh support grips when exceeding specified maximum vertical length
- Supports per Comtran Cable's installation instructions

## PART NUMBERS & CONDUIT FILL RATES (In Conduit only):

Applies to both vertical and horizontal installations

Part Number	Nom. Diameter (Inches)	Nom. Weight (Lbs./1000')	Nom. Cap. (pf/Ft.)	1/2" Max. Conduit Fill	3/4" Max. Conduit Fill	1" Max. Conduit Fill	1 1/4" Max. Conduit Fill	1 1/2" Max. Conduit Fill	2" Max. Conduit Fill
<b>Shielded</b>									
18/2 Solid (36397)	0.309"	49	17	1 Cable	2 Cables	4 Cables	7 Cables	7 Cables	7 Cables
16/2 Solid (35785)	0.330"	60	20	-	-	3 Cables	6 Cables	8 Cables	10 Cables
14/2 Solid (36316)	0.353"	64	25	-	-	3 Cables	5 Cables	6 Cables	10 Cables
<b>Unshielded</b>									
18/2 Solid (36337)	0.305"	41	17	1 Cable	2 Cables	4 Cables	7 Cables	7 Cables	7 Cables
16/2 Solid (35777)	0.321"	52	19	1 Cable	2 Cables	3 Cables	6 Cables	8 Cables	10 Cables
16/2 Stranded (36341)*	0.344"	54	19	1 Cable	1 Cable	3 Cables	5 Cables	7 Cables	10 Cables
14/2 Solid (36338)	0.352"	61	20	1 Cable	1 Cable	3 Cables	5 Cables	7 Cables	10 Cables
14/2 Stranded (36340)*	0.368"	65	20	1 Cable	1 Cable	2 Cables	4 Cables	6 Cables	10 Cables
12/2 Solid (36342)*	0.402"	90	22	1 Cable	1 Cable	2 Cables	4 Cables	6 Cables	10 Cables
12/2 Stranded (36339)*	0.416"	92	22	1 Cable	1 Cable	2 Cables	4 Cables	6 Cables	10 Cables

\*Non-stock item. Lead time and MOQ may be required.



VITALink® cables are proudly made in the USA

# Dual Rating: CI vs. CIC

Comtran's VITALink® cables are the most versatile on the market, with the only dual CI/CIC rating. All VITALink® cables are rated as both Circuit Integrity (CI) and Circuit Integrity in Conduit (CIC). The same cable can be installed either with or without conduit, depending on the application and code requirements.

## CIRCUIT INTEGRITY (CI):

As CI, also referred to as CI Free Air, VITALink® can be used in riser or horizontal (non-plenum) installations without conduit. The cable must be installed per the NEC code and meet all national and local code requirements. Since conduit is not required, there are no fill restrictions, which also saves money, space, time, and labor.

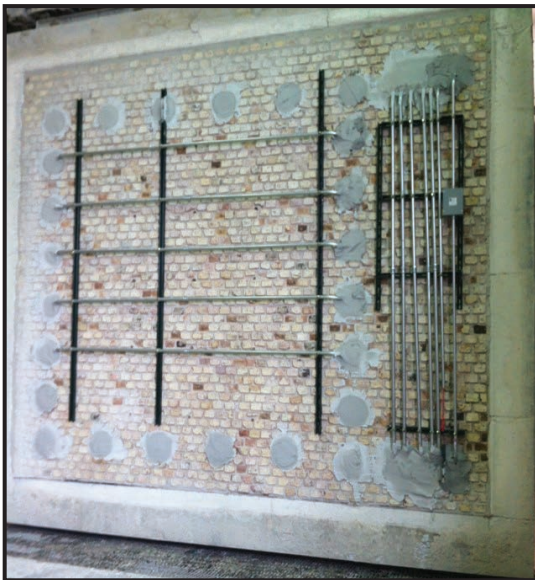
## CIRCUIT INTEGRITY IN CONDUIT (CIC):

As CIC, VITALink® cable must be installed as the UL approved FHIT.40A or FHIT7.40A system and in accordance with Comtran's installation instructions. This system requires use of specific hardware including conduit, couplings, pulling lubricant, pull boxes, and supports. In areas such as plenum airspace, VITALink® must be installed in conduit.

## TESTING:

Underwriters Laboratories Standard 2196 requires 5 out of 5 system tests to pass for a full 2 hours of burn time at temperatures up to 1850° F and then attack by water without loss of signal. Cable installed in a 90° curved conduit must pass the same testing in order to meet ULC-S139, the circuit integrity listing in Canada.

VITALink® also meets the survivability requirements in NFPA 70, NFPA 72, NFPA 130, and NFPA 502.



Before and after UL burn testing. When tested as CIC, VITALink® cables are pulled into conduit, secured to a wall, and terminated. The wall is connected to a furnace for 2 hours, while circuits are monitored closely for leakage current. After 2 hours, the wall is removed and exposed to a pressurized hose stream.

# Applications and Standards

## CRITICAL SYSTEMS SUPPORTED:

- EVAC - Emergency Voice-Alarm Communication and Smoke and Fire Alarm Systems
- Fireman's Telephone & Area of Refuge Communication Systems
- Visible Notification Appliances
- Fan/Damper Pressurization Systems
- Fuel Leak Detection Systems
- Fire Pump - Feeder/Controls
- Smoke Control & Management Equipment
- Command Center Critical Systems
- Pressurized Stairway Systems

## COMMON APPLICATIONS:

- Manufacturing, Commercial, and Industrial locations
- High-rise Buildings
- Universities and Stadiums
- Hotels and Airports
- Health Care Facilities
- Tunnels and Subways for Emergency Communications

## PERFORMANCE STANDARDS:

- UL Certified to ANSI/UL 2196 2-Hour fire rating for use in FHIT System 40A (See UL Fire Directory R27557)
- NEC Type FPLR-CI-LS, CMR-CI-LS, and PLTC-CI-LS
- c(UL) Listed CMR-LS
- CEC and CSA Listed FAS90 to C22.2 No. 208-14
- CAN/ULC-S139 Certified with Hose Stream Test for use in FHIT7 System 40A
- UL 1424 Listed FPLR-CI-LS for Power-Limited Fire Alarm Cables; 300V / 105°C
- UL 13 Listed PLTC-CI-LS for Power-Limited Circuit Cables; 300V / 105°C
- UL 444 Listed CMR-CI-LS for Communication Cable; 300V / 105°C
- Fire certified for power-limited system use at 72V phase-to-phase utilization voltage
- Sunlight Resistant
- For use in Wet Locations
- NYC Electrical Advisory Board approval #54502, April 2017
- California State Fire Marshal Approved



Protect critical systems and ensure occupants get to safety!



# Wire & Cable for Specialized Needs



Want to learn more?

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