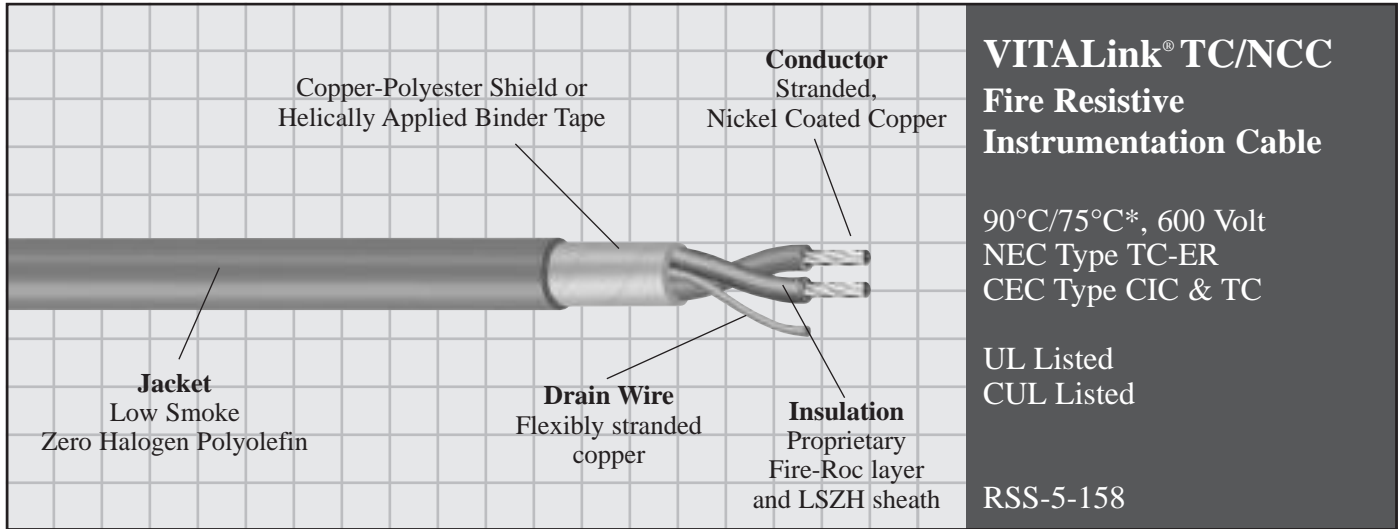


VITALink® TC/NCC

Fire Resistant Instrumentation Cable



VITALink® TC/NCC Fire Resistant Instrumentation Cable

90°C/75°C*, 600 Volt
 NEC Type TC-ER
 CEC Type CIC & TC

UL Listed
 CUL Listed

RSS-5-158

Scope

VITALink® TC/NCC is a unique cable which offers superior fire endurance capabilities along with the well-established benefits and features associated with NEC Type TC cable designs. This cable is suitable for use in circuits where the maintenance of circuit integrity is an

absolute necessity to allow the operation of systems or equipment vital to life or safety under emergency conditions. It has applications in the petroleum industry for MOV instrumentation, communication systems and other critical functions where fire survivability is essential.

Features

- Fire Rated
- Moisture Resistant
- Installs in steel raceway with steel fittings
- Low Smoke, Halogen free design
- Flexible for installation ease
- Easy stripability
- Available in long lengths
- No special tools, connectors, or procedures
- Easily pulled (low friction jacket)

* 90°C dry, 75°C wet per NEC

Performance Standards

- Insulation resistance is in excess of 10,000 ohms in 60 minute 2000°F flame test per Mil-W-25038 (Shake & Bake)
- Additional third party qualification for 30 minutes at 2000°F Rapid Rise Test witnessed by UL
- Passes IEC 331 flame test modified to 3 hours @ 2000°F
- UL Listed, NEC Type TC in accordance with UL Standard No. 1277
- Approved and marked with the "Sunlight Resistant" designation
- Singles tested per UL44/CSA 22.2 No. 38 Section 5.4 Long Term Insulation Resistance in Water Test
- Singles UL Type RFFH-3
- Approved and marked with the "FT-4" flame test designation
- CUL Listed as CEC Type CIC in accordance with CSA Standard C22.2 No. 239
- CUL Listed as CEC Type TC in accordance with CSA Standard C22.2 No. 230
- ABS Recognized for marine ship-board
- -ER meets the crush and impact requirement of Type MC cable and can be used per NEC 336.10 (7) for extended runs

Construction

Conductor:

Stranded, nickel coated copper

Insulation System:

Proprietary Low Smoke Zero Halogen thermoset Fire-Roc layer and thermoset low smoke zero halogen covering

Circuit Identification:

ICEA Method 3: Black insulation with printed numbers and color names - black and white for pairs - black, white and red for triads. In addition, legs other than black have colored stripe in the named color.

Optional Shielding:

Components and overall cable shields, if required, accomplished by copper polyester tape shield in contact with stranded copper drain wires.

Binder Tape:

Helically applied binder tape applied over unshielded and multi-pair or multi-triad cable cores.

Jacket:

Black Low-Smoke Zero Halogen Polyolefin (colors available on request)

VITALink® TC/NCC

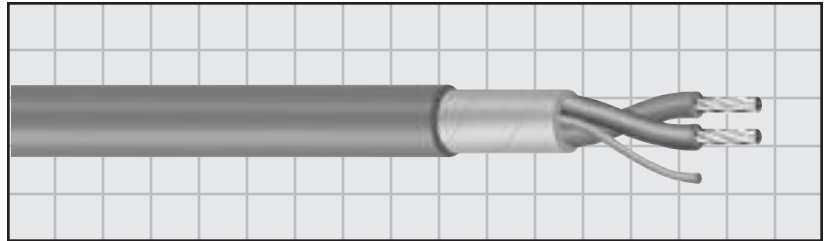
Fire Resistive Instrumentation Cable

90°C/75°C, 600 Volt

UL Listed. NEC Type TC-ER

CUL Listed. CEC Type CIC & TC

RSS-5-158



Size: 16 AWG 19/.0113" nickel-coated copper, .030" low-smoke zero-halogen thermoset Fire-Roc insulation and .015" black low-smoke zero-halogen thermoset conductor jacket (nominal diameter 0.150", 3.8 mm)

Product Code	Number of		Jacket Thickness		Nominal Diameter		Net Weight		Minimum Bending Radii ¹		Ampacity ²
	Pairs	Shields	(mils)	(mm)	(inch)	(mm)	(Lbs. per 1000 ft)	(kg/m)	(inch)	(cm)	
I49-0020	1	NS	45	1.14	0.39	10.0	67	0.100	1.75	4.4	13
I49-0021	1	SP	45	1.14	0.40	10.2	75	0.112	2.00	5.1	13
I49-0024	2	SP/OS	80	2.03	0.88	22.4	272	0.405	3.75	9.5	10
I49-0044	4	SP/OS	80	2.03	1.03	26.2	418	0.622	4.25	10.8	9
I49-0084	8	SP/OS	80	2.03	1.34	34.0	716	1.065	5.50	14.0	7
I49-0124	12	SP/OS	80	2.03	1.64	41.7	1012	1.506	6.75	17.1	4
I49-0244	24	SP/OS	110	2.79	2.36	59.9	2001	2.977	9.50	24.1	3
I49-0504	50	SP/OS	140	3.56	3.27	83.1	3981	5.924	13.25	33.7	3

Product Code	Number of		Jacket Thickness		Nominal Diameter		Net Weight		Minimum Bending Radii ¹		Ampacity ²
	Triads	Shields	(mils)	(mm)	(inch)	(mm)	(Lbs. per 1000 ft)	(kg/m)	(inch)	(cm)	
I49-0030	1	NS	45	1.14	0.51	13.0	116	0.173	2.25	5.7	13
I49-0031	1	ST	45	1.14	0.51	13.0	125	0.186	2.25	5.7	13

Shields: NS = not shielded. SP = shielded pair. ST = shielded triad. OS = overall shield.

Drain wires are 18 AWG 16/.010" tinned copper.

Maximum direct current resistance of each leg of one pair or triad cable is 6.39 Ohms/1000 feet at 20°C.

Note 1: Minimum Bending Radii are instructive for permanent training.

Note 2: Ampacity based on Table 310.16 of the National Electrical Code for 75°C conductor temperature and 30°C ambient, adjusted for NCC conductors and with adjustment factors from Table 310.15(b)(2)(a) for not more than three current carrying conductors.