

VITALink® 2000 Fire Resistive Instrumentation Cable

Scope

VITALink® 2000 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

the operation of systems or equipment vital to life or safety under emergency conditions.

It has applications in the petroleum industry

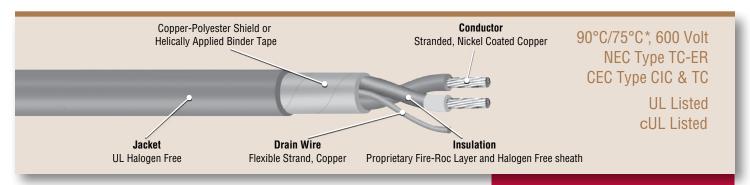
for MOV instrumentation, communication

systems and other critical functions where

fire survivability is essential.

* 90°C dry, 75°C wet per NEC

integrity is an absolute necessity to allow



Features

- Fire Rated
- Installed on steel tray with steel fittings
- Moisture Resistant
- Installs in steel raceway/conduit with steel fittings
- Halogen free design
- Flexible for installation ease
- Easy stripability
- Available in long lengths
- No special tools, connectors, or procedures
- Easily pulled (low friction jacket)
- VITALink 2000 Fire-Rated cable is patented: U.S. Patent #7538275 B2 5-26-2009

Performance Standards

- Passes API 2218 flame test per UL 1709 oven test at 2000°F for 60 minutes with heat flux of $65,000 \pm 5000$ BTU/h ft² (204 ± 16 kw/m²)
- UL Listed as NEC Type TC in accordance with UL Standard No. 1277
- Jacket Material UL Recognized Halogen Free "HF" per UL 2885
- Cables low smoke halogen free LSHF per ICEA S-73-532 and ICEA T-33-655
- Approved and marked with the "Sunlight Resistant" designation
- Singles UL Type RFHH-3
- Singles wet rated per UL44/CSA 22.2 No. 38 Section 5.4 Long Term Insulation Resistance in Water Test
- Approved and marked with "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 shipboard
- -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

Thermal Barrier: Inorganic layer

Insulation System: Proprietary Halogen Free thermoset Fire-Roc layer and thermoset halogen free 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.

Shield and Binder Tape: As required, shields are copper polyester laminated tape with flexibly stranded copper drain wire. Individual pairs or triads may be shielded or unshielded. Cables may have overall shields if required.

Jacket: Black Halogen Free (colors available on request)





Marmon Engineered Wire & Cable LLC

A Berkshire Hathaway Company

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Size: 16 AWG – 19/29 nickel-coated copper, 0.060" Insulation Thickness (nominal diameter 0.235", 5.97 mm)

600 Volt - Pairs

			Jacket Thickness		Nominal Diameter		Net Weight		Minimum Bending Radii ¹		Ampacity ²
Product Code	Pair No	Shields	(inch)	(mm)	(inch)	(mm)	(lbs./1000 ft.)	(kg/m)	(inch)	(cm)	(Amps)
VH02016-000	1	NS	.060	1.52	0.61	15.5	185	0.275	4.88	12.4	8
VH02016-110	1	SP	.060	1.52	0.62	15.7	193	0.287	4.96	12.6	8
VH04016-310	2	SP/OS	.080	2.03	1.07	27.2	465	0.692	8.56	21.7	6.4
VH08016-310	4	SP/OS	.080	2.03	1.24	31.5	585	0.870	9.92	25.2	5.6
VH16016-310	8	SP/OS	.080	2.03	1.65	41.9	1000	1.488	13.2	33.5	4
VH24016-310	12	SP/OS	.110	2.79	2.08	52.8	1625	2.418	16.64	42.3	3.6

Note: Insulated conductors for single pair cables will be Printed "1-BLACK", "2-WHITE" with White Stripe. Pairs in higher pair counts will be printed with the number corresponding to the pair number.

600 Volt - Triads

			Jacket Thickness Nominal Diameter		Net Weight		Minimum Bending Radii ¹		Ampacity ²		
Product Code	Triad No	Shields	(inch)	(mm)	(inch)	(mm)	(lbs./1000 ft.)	(kg/m)	(inch)	(cm)	(Amps)
VH03016-000	1	NS	.060	1.52	0.63	16.0	210	0.312	5.04	12.8	8
VH03016-110	1	ST	.060	1.52	0.65	16.5	226	0.336	5.2	13.2	8

Note: Insulated conductors for single triad cables will be printed "1-BLACK", "2-WHITE" with White Stripe, "3-RED" with Red Stripe. Triads in higher pair counts will be printed with the number corresponding to the triad number.

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

Drain wires are 16 AWG 26/0.010" bare copper.

Maximum direct current resistance of each leg of one pair or triad cable is 6.3896 Ohms/1000 feet at 20° C.





¹Minimum Bending Radii are instructive for permanent training.

²Ampacity based on API 14FZ for nickel-coated copper conductor (27% nickel), 75°C, 600V adjustment factors from NEC 2011 Table 310.15(b)(2)(a) for more than three current carrying conductors.