

## ULTREX® VN Unshielded Tray Cable

ULTREX® VN Unshielded Tray Cable 14 AWG

Part Number: ULTREX® VN Unshielded Tray Cable 14 AWG

Type THHN/THWN-2: UL Type TC, 600 V, rated 90°C wet and dry - LEAD FREE - Exposed Run (ER) Rated\*\*

### Description

#### Applications

Nexans 600 V Ultrex VN Tray Cables are listed as type TC under UL 1277 Electrical Power and Control Cables. THHN/THWN-2 cables #14 and larger meet UL 83 Thermoplastic-Insulated Wires and Cables. These cables may be installed in wet or dry locations; in cable trays, raceways and open air; and are suitable for exposure to weather, direct burial and for Class I, Div. 2 (also Zone 2) and Class II, Div. 2 hazardous locations per NEC.

\*\*Cables with three or more conductors are UL listed for exposed runs (ER) when installed in accordance with NEC Article 336.10(7).

#### Construction

##### Conductor:

Bare, annealed copper conforming to ASTM B3 and B8, from #14 AWG to 500 kcmil. Compressed copper for #14 AWG through 500 kcmil.

##### Insulation:

Flame-retardant PVC/Nylon type THHN/THWN-2 per UL 83 for sizes #14 AWG to 500 kcmil.

##### Assembly:

Insulated conductors in non-shielded cables with 3 or more conductors are cabled into concentric layers. Fillers are inserted into interstices and a binder tape of synthetic material is used to assemble the core in a tight circular configuration. Two-conductor cables are supplied in a flat/parallel configuration.

##### Jacket:

UL listed sunlight and moisture resistant, black, flame retardant polyvinyl chloride (PVC) material meeting the requirements of UL 1277. A nylon ripcord is included for ease of jacket removal. Jacket surface is printed with required UL / NEC code information and sequential footgauge markings.

##### Conductor Identification:

#14 AWG to #10 AWG: color coded per Method #1-E2 per ICEA S-73-532

See details in Conductor Identification Charts.



### Standards

National ICEA S-73-532; UL 1277; UL 83

### Characteristics

#### Dimensional characteristics

Conductor cross-section (AWG)

14

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Unshielded Ultrex VN Tray Cable - UL Type TC, 600 V, 90°C wet and dry rated - LEAD FREE

Multiconductor 14 AWG Type THHN/THWN-2 - Insulation Thickness: 15 mils / .38mm PVC, 4 mils / .10mm Nylon

Part Number	# of Conductors	Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Ampacity (1, 3, 4) amps
		mils	mm	inches	mm	lb/kft	kg/km	
696815	2 Flat	45	1.14	.205 x .315	5.21 x 8.00	58	86	25.0
696823	3	45	1.14	0.336	8.52	77	114	25.0
696831	4	45	1.14	0.364	9.25	91	135	20.0/25.0(2)
696849	5	45	1.14	0.397	10.09	117	174	20.0
667055	6	45	1.14	0.431	10.95	137	204	20.0
696807	7	45	1.14	0.431	10.95	152	226	17.5
676700	8	45	1.14	0.466	11.84	175	260	17.5
696856	9	45	1.14	0.502	12.76	195	290	17.5
696864	10	60	1.52	0.566	14.38	232	345	12.5
-----	11	60	1.52	0.574	14.58	250	372	12.5
696872	12	60	1.52	0.591	15.01	266	396	12.5
-----	13	60	1.52	0.601	15.27	287	427	12.5
-----	14	60	1.52	0.620	15.76	307	457	12.5
-----	15	60	1.52	0.636	16.16	326	485	12.5
631002	16	60	1.52	0.653	16.59	343	510	12.5
696880	19	60	1.52	0.687	17.45	396	589	12.5
696898	20	60	1.52	0.707	17.97	417	620	12.5
696906	25	60	1.52	0.792	20.12	518	771	11.3
627299	30	80	2.03	0.886	22.51	638	949	11.3
696914	37	80	2.03	0.953	24.21	774	1152	10.0
-----	40	80	2.03	0.988	25.10	833	1240	10.0
-----	45	80	2.03	1.045	26.54	928	1381	8.8
697326	50	80	2.03	1.083	27.51	972	1446	8.8

**Bend Radius: 5 x overall diameter installed / 8 x overall diameter during installation pull-in.**

**Notes:**

Dimensions and weights shown are nominal values. They are subject to standard industry tolerances.

Cables with different conductor counts are also available.

(1) Ampacities are in accordance with NEC Table 310.16 for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for cables having more than three conductors have been derated per NEC Table 310.15 (B)(2)(a).

(2) Where the 4th conductor is the neutral of a balanced 3 phase system.

(3) For load diversity of 50%, refer to NEC Table B.310.11.

(4) For correction factors to different ambient temperatures and ampacities for different conductor temperature ratings see NEC Table 310.16.

NEC Article 240.4(D) requires that overcurrent protection not exceed 15 amperes for 14 AWG copper conductors. Exceptions to this may be covered in NEC 240.4(E) through (G).

### Selling delivery information

#### OPTIONS

The following constructions can be provided on special orders:

- \* Dow Construction
- \* DuPont Construction
- \* Composite Cable Construction
- \* Insulated Green Ground
- \* Different conductor identification methods

## **ULTREX® VN Unshielded Tray Cable**

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\* Use in Hazardous locations:

Please note that no investigation of these cables has been performed regarding the transmission of gases or vapors through the core. When these cables are used in hazardous locations they should be sealed properly as required by the NEC.



March 17, 2008

To whom it may concern:

Dear Sir or Madam:

Pursuant to your request for information regarding our compliance with RoHS regulations (EU Directive 2002/95/EC), we have completed an analysis of our products in reference to the six substances listed below.

<u>Substance</u>	<u>Limit</u>
1. Lead	< 1000 ppm
2. Mercury	< 1000 ppm
3. Cadmium	< 100 ppm
4. Chromium VI	< 1000 ppm
5. Polybrominated biphenyls (PBB)	< 1000 ppm
6. Polybrominated diphenyl ethers (PBDE)	< 1000 ppm

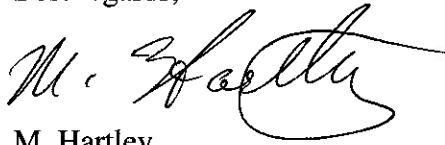
We certify that none of these substances are intentionally added to our product(s) listed below, nor do we believe them to be present in this product(s) at levels in excess of the RoHS limits.

The information contained here is accurate to the best of our knowledge and belief. Please note, however, that we do not test for the listed materials and therefore do not represent, warrant or guarantee the accuracy or completeness of the information presented herein. Furthermore ultimate compliance of the product with RoHS regulations is contingent on no further modification of the product, in those instances where Nexans' products are incorporated into another product, and on good manufacturing processes.

Nexans' Product(s):

Ultrex® VN Tray Cable

Best regards,

A handwritten signature in black ink, appearing to read 'M. Hartley', with a large, stylized flourish at the end.

M. Hartley  
Director Product Engineering & Quality

RoHS\_certification\_ltr2\_rev3