

## Instrumentation TC - 600 V - PVC/Nylon Insulated

Instrumentation TC - 600 V - PVC Insulated, PVC Jacketed

Part Number: Individual and Overall Shielded Pairs

600 V, PVC/Nylon Insulated, 90°C, Unshielded Pairs or Triads with Overall Shield, Shielded Pairs or Triads with Overall Shield - LEAD FREE, Type TC - UL 1277 - NEC ART 336

### Description

#### Applications

The 600 V Instrumentation Cables are listed as Type TC per UL 1277. These cables are suitable for installations as outlined in NEC ART 336.

NEXANS Instrumentation Cable is LEAD FREE and RoHS Compliant.

#### Construction

**Conductor:** bare, annealed copper conforming to ASTM B-3 and Class B stranded in accordance to ASTM B-8.

**Insulation:** PVC/Nylon Type TFN in accordance with UL 66, flame retardant, 90°C temperature rating.

**Insulation Shield (on shielded pair/triad constructions):** aluminum foil/polyester shield helically wrapped to provide 100% coverage with a tinned copper drain wire that is two gauge sizes smaller than the circuit conductors. These shields are electrically isolated from each other.

**Assembly:** pairs/triads are cabled in concentric layers. In the case of unshielded pairs/triads, they are cabled at staggered lengths to reduce crosstalk.

**Overall cable shield:** aluminum foil/polyester shield helically wrapped to provide 100% coverage with a tinned copper drain wire that is the same size as the circuit conductors, with the exception of single pair/triad constructions where the drain wire is two gauge sizes smaller than the circuit conductors.

**Jacket:** UL listed sunlight and moisture resistant, sequentially length marked, black, flame retardant polyvinyl chloride material. A Nylon ripcord is included for ease of jacket removal.

#### Conductor Identification

**Pairs:** black/white and number coded

**Triads:** black/white/red and number coded

#### Bending Radius

**Fixed Position:** 5 x cable overall diameter

**During Installation:** 8 x cable overall diameter

#### Specifications

- Meets UL 66, TFN rated 90°C 600 V conductors
- Meets UL requirements for Type TC
- Designated Type TC per NEC ART 336

### Standards

National UL 1277

**Contact**

LV Building Wire & Equipment Cables  
Phone: 866-663-9267  
USA.BuildingWire@nexans.com

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### Characteristics

#### Construction characteristics

Conductor material	Bare annealed copper
Outer sheath	PVC
Electrostatic shielding	Individual and Overall Shielded

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Part Number: Individual and Overall Shielded Pairs

### Instrumentation TC

600 V, PVC/Nylon Insulated, 90°C,  
 Individual and Overall Shield - LEAD FREE  
 UL 1277 - Type TC - NEC ART 336

Shielded Pairs with an Overall Shield (SPOS), 600 V

Part Number	# of Pairs	Conductor Size	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Pulling Tension	
		AWG	mils	mm	inches	mm	inches	mm	lb/kft	kg/km	lbf	N
631358	2	18 (7)	15/4	.38/.10	47	1.19	0.429	10.90	96	143	81	365
631366	4	18 (7)	15/4	.38/.10	47	1.19	0.498	12.65	139	207	149	663
687780	6	18 (7)	15/4	.38/.10	60	1.52	0.595	15.11	194	288	217	965
631374	8	18 (7)	15/4	.38/.10	62	1.57	0.678	17.22	257	382	285	1268
-----	10	18 (7)	15/4	.38/.10	62	1.57	0.794	20.17	314	467	353	1570
631382	12	18 (7)	15/4	.38/.10	62	1.57	0.819	20.80	359	534	421	1873
697532	16	18 (7)	15/4	.38/.10	82	2.08	0.951	24.16	490	729	558	2482
671735	20	18 (7)	15/4	.38/.10	82	2.08	1.053	26.75	592	881	694	3087
697540	24	18 (7)	15/4	.38/.10	82	2.08	1.169	29.69	695	1034	830	3692
697557	36	18 (7)	15/4	.38/.10	82	2.08	1.336	33.93	987	1469	1239	5511
627919	50	18 (7)	15/4	.38/.10	82	2.08	1.572	39.93	1314	1955	1716	7633
631309	2	16 (7)	15/4	.38/.10	47	1.19	0.480	12.19	127	189	129	574
631317	3	16 (7)	15/4	.38/.10	47	1.19	0.514	13.06	145	216	183	814
631325	4	16 (7)	15/4	.38/.10	62	1.57	0.590	14.99	201	299	237	1054
631333	6	16 (7)	15/4	.38/.10	62	1.57	0.694	17.63	270	402	350	1557
631341	8	16 (7)	15/4	.38/.10	62	1.57	0.763	19.38	344	512	454	2019
-----	10	16 (7)	15/4	.38/.10	82	2.08	0.937	23.80	455	677	537	2389
697508	12	16 (7)	15/4	.38/.10	82	2.08	0.966	24.54	521	775	671	2985
697516	16	16 (7)	15/4	.38/.10	82	2.08	1.072	27.23	660	982	888	3950
680405	20	16 (7)	15/4	.38/.10	82	2.08	1.190	30.23	801	1192	1105	4915
697524	24	16 (7)	15/4	.38/.10	82	2.08	1.323	33.60	944	1405	1322	5880
680413	36	16 (7)	15/4	.38/.10	92	2.34	1.536	39.01	1370	2039	1972	8771
693564	50	16 (7)	15/4	.38/.10	112	2.84	1.849	46.96	1914	2848	2731	12147

**Note: Specifications and weights shown are nominal and subject to standard industry tolerances.**

### Selling delivery information

#### Options

The following constructions can be provided on special orders:

- Tinned copper conductors
- When increased mechanical, chemical, or environmental protection is required, cables can be supplied with a continuously corrugated aluminum and an outer PVC jacket.
- Interlocked aluminum armor with or without an additional outer PVC jacket
- Conductors with alternate color / identification codes
- Alternate jacket colors

\* Use in Hazardous locations:

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