

# INSTRUMENTATION

## 300 Volt and 600 Volt Cables



**LEAD FREE**  
**RoHS**

 **nexans**



**866-663-9267**

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# Instrumentation Cables

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## Introduction

Nexans is one of the largest wire and cable manufacturers in the world, and in North America. In North America we manufacture in locations across the United States and Canada. We design and produce a wide range of cables used in power, industrial, construction and communication applications.

With more than a century of experience as a leader in the industrial and power cable markets, Nexans is contracted by heavy industry and utilities worldwide to provide turnkey solutions for the bulk transmission of power - from generating station through the transmission and distribution systems to commercial, residential and industrial areas.

This catalog has been prepared for the convenience of those using electrical conductors in industrial, commercial and residential applications. The information included in the many tabulations will be of particular value to the architect, engineer, electrician, and layperson alike. For your convenience, we have referenced applicable Articles and Tables from both the 2008 NEC and the 2011 NEC.

Although we have listed the types of wires and cables suitable for most conditions, we are equipped to manufacture other types to suit special needs. We would be pleased to recommend the most suitable construction for any special condition that you may encounter.

The determination of the correct cable size and type, and the selection of methods of installation suitable for the type and location of particular circuits, should be made in accordance with local regulations. Any questions in this respect should be directed primarily to the local Electrical Inspection Authority.

We are pleased to note that all the cables in this catalog are LEAD FREE and RoHS compliant.

"Lead Free" indicates that the Nexans cable components have less than 300 ppm of lead, which is well below the 1000 ppm level indicated in RoHS (restriction of hazardous substances) regulations and below the level requiring labeling by California Proposition #65.

## 300 V, PVC Insulated, 105°C - Lead Free Unshielded Pairs or Triads with Overall Shield Shielded Pairs or Triads with Overall Shield Type PLTC – UL 13 Type ITC – UL 2250

### Applications

The 300 V Instrumentation Cables are dual listed as Type PLTC per UL 13 and Type ITC per UL 2250. These cables are suitable for installations as outlined in NEC 2008 and NEC 2011 Article 725 for Type PLTC cables and NEC 2008 and NEC 2011 Article 727 for Type ITC cables. They are also a suitable substitute for General purpose Class 2 (CL2) and Class 3 (CL3) wiring, as well as Dwelling unit Class 2 (CL2X) and Class 3 (CL3X) wiring as per NEC 2008 and NEC 2011 Article 725.

NEXANS Instrumentation Cable is Lead Free and RoHS compliant.

### Construction

**Conductor:** bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance to ASTM B8.

**Insulation:** polyvinyl chloride in accordance with UL 13 and UL 2250, flame retardant, 105°C temperature rating.

**Insulation Shield** (on shielded pair/triad constructions): aluminum foil/polyester shield helically wrapped to provide 100% coverage with a finned 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.

**Communication Wire:** Orange communication wire is provided for calibration on 4 pair/triad and higher.

**Overall cable shield:** aluminum foil/polyester shield helically wrapped to provide 100% coverage with a finned 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

- Conductor rated 105°C 300 V
- Meets UL 13: Power-Limited Circuit Cables, Type PLTC
- Meets UL 2250: Instrumentation Tray Cable, Type ITC
- Designated Type PLTC per NEC 2008 and NEC 2011 Article 725
- Designated Type ITC per NEC 2008 and NEC 2011 Article 727

### Product Features

- UL approved Type PLTC and ITC, 300 V
- UL approved insulated conductors
- Cables pass UL 1685 and IEEE 383 vertical fire tests at 70,000 BTU/hr
- Temperature rating 105°C dry

- Sunlight and moisture resistant jacket
- Lead Free
- For use within Class 1 Division 2 and Class 2 Division 2 Hazardous Locations, and Intrinsically Safe applications as permitted by NEC 2008 and NEC 2011 Articles 392, 501, 502, 504 and 505.\*
- As indicated in UL 13 and 2250: The overall jackets of these cables are a "gas/vapour tight continuous sheath" as discussed in NEC 2008 and NEC 2011 Article 501.15(E).\*
- For use under raised floors in control rooms when arranged in such a fashion as to prevent damage to the cables.
- In Class 2 and Class 3 Circuits, as defined in NEC 2008 and NEC 2011 Article 725 for Type PLTC cables.

### 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 welded and corrugated impervious aluminum sheath armor and an outer PVC jacket.
- Interlocked aluminum armor with or without an outer PVC jacket.
- Direct Burial listed cable (when ordered as ITC/DB)
- Conductors with alternate color / identification codes
- Alternate jacket colors

\* Use in hazardous locations: 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.

**300 V, PVC Insulated, 105°C, Overall Shield**
**Lead Free**
**Type PLTC**
**Type ITC**
**Unshielded Pairs with an Overall Shield (POS), 300 V**

Part Number	# of Pairs	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
669606	1	20 (7)	12	0.30	37	0.94	0.212	5.38	27	40	16	73
_____	2	20 (7)	12	0.30	37	0.94	0.264	6.71	49	73	33	145
671206	4	20 (7)	12	0.30	42	1.07	0.353	8.97	74	110	57	254
671219	8	20 (7)	12	0.30	52	1.32	0.485	12.32	133	198	106	472
_____	10	20 (7)	12	0.30	52	1.32	0.529	13.44	158	235	131	581
671180	12	20 (7)	12	0.30	52	1.32	0.570	14.48	182	271	163	726
671305	16	20 (7)	12	0.30	62	1.57	0.662	16.81	243	362	212	944
676494	20	20 (7)	12	0.30	62	1.57	0.726	18.44	291	433	261	1162
671313	24	20 (7)	12	0.30	62	1.57	0.783	19.89	338	503	318	1416
671339	36	20 (7)	12	0.30	72	1.83	0.951	24.16	495	737	473	2105
671347	50	20 (7)	12	0.30	72	1.83	1.095	27.81	658	979	653	2904
669614	1	18 (7)	15	0.38	37	0.94	0.230	5.84	34	51	26	115
669739	2	18 (7)	15	0.38	42	1.07	0.302	7.67	67	100	52	231
671123	4	18 (7)	15	0.38	52	1.32	0.413	10.49	105	156	91	404
669633	8	18 (7)	15	0.38	52	1.32	0.541	13.74	176	262	168	749
_____	10	18 (7)	15	0.38	52	1.32	0.592	15.04	211	314	207	922
671115	12	18 (7)	15	0.38	62	1.57	0.670	17.02	258	384	259	1153
676411	16	18 (7)	15	0.38	62	1.57	0.742	18.85	326	485	337	1499
_____	20	18 (7)	15	0.38	62	1.57	0.851	21.62	393	585	415	1845
671107	24	18 (7)	15	0.38	72	1.83	0.901	22.89	476	708	505	2248
671099	36	18 (7)	15	0.38	72	1.83	1.071	27.20	675	1005	752	3344
671065	50	18 (7)	15	0.38	72	1.83	1.236	31.39	901	1341	1037	4612
669580	1	16 (7)	15	0.38	37	0.94	0.254	6.45	47	70	41	184
671156	2	16 (7)	15	0.38	42	1.07	0.339	8.61	91	135	83	367
671198	4	16 (7)	15	0.38	52	1.32	0.464	11.79	142	211	144	643
671164	8	16 (7)	15	0.38	62	1.57	0.633	16.08	256	381	268	1194
_____	10	16 (7)	15	0.38	62	1.57	0.693	17.60	307	457	330	1469
671172	12	16 (7)	15	0.38	62	1.57	0.748	19.00	357	531	413	1836
672220	16	16 (7)	15	0.38	62	1.57	0.844	21.44	454	676	537	2387
_____	20	16 (7)	15	0.38	72	1.83	0.949	24.10	570	848	660	2938
671297	24	16 (7)	15	0.38	72	1.83	1.026	26.06	667	993	805	3581
671131	36	16 (7)	15	0.38	72	1.83	1.224	31.09	956	1423	1197	5325
671149	50	16 (7)	15	0.38	82	2.08	1.437	36.50	1314	1955	1651	7345

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**300 V, PVC Insulated, 105°C, Overall Shield**
**Lead Free**
**Type PLTC**
**Type ITC**
**Unshielded Triads with an Overall Shield (TOS), 300 V**

Part Number	# of Triads	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
669747	1	20 (7)	12	0.30	37	0.94	0.222	5.64	33	49	24	109
_____	2	20 (7)	12	0.30	42	1.07	0.357	9.07	70	104	41	181
_____	4	20 (7)	12	0.30	52	1.32	0.433	11.00	107	159	82	363
_____	8	20 (7)	12	0.30	52	1.32	0.556	14.12	181	269	163	726
_____	10	20 (7)	12	0.30	62	1.57	0.670	17.02	233	347	196	871
_____	12	20 (7)	12	0.30	62	1.57	0.690	17.53	266	396	237	1053
_____	16	20 (7)	12	0.30	62	1.57	0.765	19.43	336	500	318	1416
_____	20	20 (7)	12	0.30	62	1.57	0.849	21.56	406	604	392	1742
_____	24	20 (7)	12	0.30	72	1.83	0.963	24.46	496	738	473	2105
_____	36	20 (7)	12	0.30	72	1.83	1.099	27.91	698	1039	710	3158
_____	50	20 (7)	12	0.30	82	2.08	1.312	33.32	961	1430	979	4356
669622	1	18 (7)	15	0.38	37	0.94	0.242	6.15	42	63	39	173
_____	2	18 (7)	15	0.38	52	1.32	0.413	10.49	96	143	65	288
675256	4	18 (7)	15	0.38	52	1.32	0.476	12.09	141	210	130	576
675215	8	18 (7)	15	0.38	62	1.57	0.635	16.13	254	378	259	1153
_____	10	18 (7)	15	0.38	62	1.57	0.741	18.82	311	463	311	1384
_____	12	18 (7)	15	0.38	62	1.57	0.764	19.41	358	533	376	1672
_____	16	18 (7)	15	0.38	62	1.57	0.849	21.56	454	676	505	2248
_____	20	18 (7)	15	0.38	72	1.83	0.963	24.46	571	850	622	2767
_____	24	18 (7)	15	0.38	72	1.83	1.070	27.18	674	1003	752	3344
_____	36	18 (7)	15	0.38	72	1.83	1.224	31.09	958	1426	1128	5015
_____	50	18 (7)	15	0.38	82	2.08	1.462	37.13	1321	1966	1555	6918
669598	1	16 (7)	15	0.38	37	0.94	0.267	6.78	58	86	62	275
_____	2	16 (7)	15	0.38	52	1.32	0.460	11.68	126	188	103	459
687907	4	16 (7)	15	0.38	52	1.32	0.533	13.54	192	286	206	918
671321	8	16 (7)	15	0.38	62	1.57	0.713	18.11	352	524	413	1836
_____	10	16 (7)	15	0.38	62	1.57	0.836	21.23	432	643	495	2203
_____	12	16 (7)	15	0.38	62	1.57	0.863	21.92	500	744	599	2663
688093	16	16 (7)	15	0.38	72	1.83	0.981	24.92	661	984	805	3581
_____	20	16 (7)	15	0.38	72	1.83	1.089	27.66	807	1201	991	4407
_____	24	16 (7)	15	0.38	72	1.83	1.212	30.78	954	1420	1197	5325
_____	36	16 (7)	15	0.38	82	2.08	1.410	35.81	1396	2077	1796	7988
_____	50	16 (7)	15	0.38	92	2.34	1.681	42.70	1923	2862	2477	11017

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**300 V, PVC Insulated, 105°C, Individual and Overall Shield  
 Lead Free  
 Type PLTC  
 Type ITC**

**Shielded Pairs with an Overall Shield (SPOS), 300 V**

Part Number	# of Pairs	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
669705	2	20 (7)	12	0.30	42	1.07	0.349	8.86	66	98	38	169
669820	4	20 (7)	12	0.30	52	1.32	0.423	10.74	101	150	73	325
669697	8	20 (7)	12	0.30	52	1.32	0.543	13.79	170	253	137	609
_____	10	20 (7)	12	0.30	62	1.57	0.654	16.61	220	327	172	765
671263	12	20 (7)	12	0.30	62	1.57	0.674	17.12	250	372	209	930
671362	16	20 (7)	12	0.30	62	1.57	0.747	18.97	316	470	274	1219
_____	20	20 (7)	12	0.30	62	1.57	0.827	21.01	382	568	343	1526
671370	24	20 (7)	12	0.30	72	1.83	0.939	23.85	466	693	416	1850
671388	36	20 (7)	12	0.30	72	1.83	1.071	27.20	655	975	617	2745
671396	50	20 (7)	12	0.30	82	2.08	1.278	32.46	902	1342	859	3821
669671	2	18 (7)	15	0.38	52	1.32	0.382	9.70	84	125	60	267
669689	4	18 (7)	15	0.38	52	1.32	0.443	11.25	121	180	115	512
669721	8	18 (7)	15	0.38	62	1.57	0.577	14.66	211	314	217	965
_____	10	18 (7)	15	0.38	62	1.57	0.720	18.29	285	424	273	1214
669713	12	18 (7)	15	0.38	62	1.57	0.743	18.87	327	487	333	1481
671404	16	18 (7)	15	0.38	62	1.57	0.824	20.93	415	618	435	1935
_____	20	18 (7)	15	0.38	72	1.83	0.935	23.75	521	775	545	2424
671412	24	18 (7)	15	0.38	72	1.83	1.038	26.37	614	914	660	2936
671420	36	18 (7)	15	0.38	72	1.83	1.187	30.15	870	1295	980	4359
671081	50	18 (7)	15	0.38	82	2.08	1.417	35.99	1201	1787	1363	6063
671222	2	16 (7)	15	0.38	52	1.32	0.446	11.33	120	179	96	427
671230	4	16 (7)	15	0.38	52	1.32	0.516	13.11	174	259	183	814
671248	8	16 (7)	15	0.38	62	1.57	0.690	17.53	317	472	346	1539
_____	10	16 (7)	15	0.38	62	1.57	0.808	20.52	388	577	434	1931
671255	12	16 (7)	15	0.38	62	1.57	0.834	21.18	449	668	529	2353
671438	16	16 (7)	15	0.38	72	1.83	0.948	24.08	592	881	692	3078
_____	20	16 (7)	15	0.38	72	1.83	1.053	26.75	721	1073	868	3861
671446	24	16 (7)	15	0.38	72	1.83	1.171	29.74	852	1268	1051	4675
671453	36	16 (7)	15	0.38	82	2.08	1.362	34.59	1245	1853	1560	6939
671487	50	16 (7)	15	0.38	82	2.08	1.603	40.72	1684	2506	2170	9653

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**300 V, PVC Insulated, 105°C, Individual and Overall Shield  
 Lead Free  
 Type PLTC  
 Type ITC**

**Shielded Triads with an Overall Shield (STOS), 300 V**

Part Number	# of Triads	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
_____	2	20 (7)	12	0.30	42	1.07	0.357	9.07	77	115	46	204
693770	4	20 (7)	12	0.30	52	1.32	0.433	11.00	122	182	97	432
693788	8	20 (7)	12	0.30	52	1.32	0.556	14.12	212	315	194	863
_____	10	20 (7)	12	0.30	62	1.57	0.670	17.02	272	405	237	1054
693796	12	20 (7)	12	0.30	62	1.57	0.690	17.53	313	466	283	1259
693804	16	20 (7)	12	0.30	62	1.57	0.765	19.43	399	594	380	1690
_____	20	20 (7)	12	0.30	62	1.57	0.849	21.56	485	722	474	2108
_____	24	20 (7)	12	0.30	72	1.83	0.963	24.46	591	880	571	2540
_____	36	20 (7)	12	0.30	72	1.83	1.099	27.91	841	1252	854	3799
_____	50	20 (7)	12	0.30	82	2.08	1.275	32.39	1155	1719	1185	5271
_____	2	18 (7)	15	0.38	52	1.32	0.431	10.95	108	161	73	325
669495	4	18 (7)	15	0.38	52	1.32	0.476	12.09	160	238	154	685
676403	8	18 (7)	15	0.38	62	1.57	0.635	16.13	293	436	308	1371
_____	10	18 (7)	15	0.38	62	1.57	0.741	18.82	360	536	376	1674
671054	12	18 (7)	15	0.38	62	1.57	0.764	19.41	416	619	449	1998
_____	16	18 (7)	15	0.38	62	1.57	0.849	21.56	533	793	603	2684
_____	20	18 (7)	15	0.38	72	1.83	0.963	24.46	671	999	753	3348
671040	24	18 (7)	15	0.38	72	1.83	1.070	27.18	793	1180	907	4033
669929	36	18 (7)	15	0.38	72	1.83	1.224	31.09	1137	1692	1356	6032
_____	50	18 (7)	15	0.38	82	2.08	1.420	36.07	1565	2329	1882	8370
_____	2	16 (7)	15	0.38	52	1.32	0.460	11.68	146	217	116	517
671271	4	16 (7)	15	0.38	52	1.32	0.533	13.53	221	329	245	1091
671693	8	16 (7)	15	0.38	62	1.57	0.713	18.11	410	610	491	2182
_____	10	16 (7)	15	0.38	62	1.57	0.836	21.23	504	750	599	2665
672063	12	16 (7)	15	0.38	62	1.57	0.863	21.92	587	874	715	3181
_____	16	16 (7)	15	0.38	72	1.83	0.981	24.92	777	1156	960	4272
_____	20	16 (7)	15	0.38	72	1.83	1.089	27.66	953	1418	1198	5329
631846	24	16 (7)	15	0.38	72	1.83	1.212	30.78	1130	1682	1443	6420
_____	36	16 (7)	15	0.38	82	2.08	1.410	35.81	1660	2470	2159	9602
_____	50	16 (7)	15	0.38	82	2.08	1.613	40.97	2252	3351	2995	13323

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.



## 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

### Applications

The 600 V Instrumentation Cables are listed as Type TC per UL 1277. These cables are suitable for installations as outlined in NEC 2008 and NEC 2011 Article 336. 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 2008 and NEC 2011.

NEXANS Instrumentation Cable is Lead Free and RoHS Compliant.

### Construction

**Conductor:** bare, annealed copper conforming to ASTM B3 and Class B stranded in accordance to ASTM B8.

**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 : Fixture Wire for 18 AWG and 16 AWG, Type TFN rated 90°C 600 V conductors
- Meets UL 1277: Power and Control Tray Cables with Optional Fiber Members, Type TC
- Designated Type TC per NEC 2008 and NEC 2011 Article 336

### Product Features

- UL approved Type TC, 600 V
- UL approved insulated conductors
- Cables pass UL 1685 and IEEE 383 vertical fire tests at 70,000 BTU/hr
- Temperature rating 90°C dry, 75°C wet
- Sunlight and moisture resistant jacket
- Lead Free
- For use within Class 1 Division 2 and Class 2 Division 2 Hazardous Locations, and Intrinsically Safe applications as permitted by NEC 2008 and NEC 2011 Articles 392, 501, 502, 504 and 505.\*

- As indicated in UL 1277: The overall jackets of these cables are a "gas/vapour tight continuous sheath" as discussed in NEC 2008 and NEC 2011 Article 501.15(E).\*
- Cables are rated for Direct Burial applications
- For use in cable trays, raceways, conduit or for aerial applications where installed with a messenger
- Cables may be used in Class 1 Circuits, as defined in NEC 2008 and NEC 2011 Articles 336.10 and 725 for Type TC cables
- Cables may also be used as permitted for nonpower-limited fire alarm circuits as defined in NEC 2008 and NEC 2011 Articles 336.10 and 760.46
- The Nylon jacket over the PVC insulation provides excellent oil and gasoline protection

### 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 welded and corrugated impervious aluminum sheath armor and an outer PVC jacket.
- Interlocked aluminum armor with or without an outer PVC jacket
- Conductors with alternate color/identification codes
- Alternate jacket colors

\* Use in hazardous locations: 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.

**600 V, PVC/Nylon Insulated, 90°C**  
**Overall Shield**  
**Lead Free**  
**Type TC**

**Unshielded Pairs with an Overall Shield (POS), 600 V**

Part Number	# of Pairs	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
669101	1	18 (7)	15/4	.38/.10	47	1.19	0.270	6.86	42	63	13	58
631275	2	18 (7)	15/4	.38/.10	47	1.19	0.340	8.64	77	115	39	173
631283	4	18 (7)	15/4	.38/.10	47	1.19	0.442	11.23	114	170	78	346
697490	6	18 (7)	15/4	.38/.10	62	1.57	0.557	14.15	162	241	117	519
627489	8	18 (7)	15/4	.38/.10	62	1.57	0.617	15.67	208	310	156	692
_____	10	18 (7)	15/4	.38/.10	62	1.57	0.675	17.15	248	369	207	922
697672	12	18 (7)	15/4	.38/.10	62	1.57	0.728	18.49	286	426	246	1095
627208	16	18 (7)	15/4	.38/.10	62	1.57	0.821	20.85	361	537	324	1441
_____	20	18 (7)	15/4	.38/.10	82	2.08	0.943	23.95	469	698	415	1845
697276	24	18 (7)	15/4	.38/.10	82	2.08	1.018	25.86	544	810	492	2191
627190	36	18 (7)	15/4	.38/.10	82	2.08	1.209	30.71	765	1138	739	3286
631291	50	18 (7)	15/4	.38/.10	82	2.08	1.396	35.46	1017	1513	1037	4612
697391	1	16 (7)	15/4	.38/.10	47	1.19	0.294	7.47	55	82	21	92
631242	2	16 (7)	15/4	.38/.10	47	1.19	0.377	9.58	103	153	62	275
631440	4	16 (7)	15/4	.38/.10	47	1.19	0.494	12.55	152	226	124	551
631457	8	16 (7)	15/4	.38/.10	62	1.57	0.690	17.53	279	415	248	1102
_____	10	16 (7)	15/4	.38/.10	62	1.57	0.756	19.20	334	497	330	1469
631259	12	16 (7)	15/4	.38/.10	62	1.57	0.817	20.75	388	577	392	1744
697474	16	16 (7)	15/4	.38/.10	82	2.08	0.964	24.49	528	786	516	2295
669408	20	16 (7)	15/4	.38/.10	82	2.08	1.058	26.87	636	946	660	2938
697482	24	16 (7)	15/4	.38/.10	82	2.08	1.144	29.06	745	1109	784	3489
627216	36	16 (7)	15/4	.38/.10	82	2.08	1.354	34.39	1057	1573	1176	5233
631267	50	16 (7)	15/4	.38/.10	82	2.08	1.578	40.08	1417	2109	1651	7345
669226	1	14 (7)	15/4	.38/.10	47	1.19	0.313	7.95	73	106	33	147

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**600 V, PVC/Nylon Insulated, 90°C**  
**Overall Shield**  
**Lead Free**  
**Type TC**

**Unshielded Triads with an Overall Shield (TOS), 600 V**

Part Number	# of Triads	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
669119	1	18 (7)	15/4	.38/.10	47	1.19	0.283	7.19	51	76	26	115
_____	2	18 (7)	15/4	.38/.10	47	1.19	0.442	11.23	90	134	52	231
_____	4	18 (7)	15/4	.38/.10	47	1.19	0.513	13.03	153	228	117	519
_____	8	18 (7)	15/4	.38/.10	62	1.57	0.700	17.78	282	420	246	1095
_____	10	18 (7)	15/4	.38/.10	62	1.57	0.820	20.83	345	513	311	1384
_____	12	18 (7)	15/4	.38/.10	82	2.08	0.886	22.50	427	635	363	1614
_____	16	18 (7)	15/4	.38/.10	82	2.08	0.982	24.94	538	801	492	2191
_____	20	18 (7)	15/4	.38/.10	82	2.08	1.088	27.64	651	969	622	2767
676676	24	18 (7)	15/4	.38/.10	82	2.08	1.208	30.68	765	1138	739	3286
_____	36	18 (7)	15/4	.38/.10	82	2.08	1.382	35.10	1080	1607	1115	4958
_____	50	18 (7)	15/4	.38/.10	82	2.08	1.628	41.35	1451	2159	1555	6918
697888	1	16 (7)	15/4	.38/.10	47	1.19	0.309	7.85	68	101	41	184
_____	2	16 (7)	15/4	.38/.10	47	1.19	0.490	12.45	120	179	83	367
_____	4	16 (7)	15/4	.38/.10	62	1.57	0.601	15.27	222	330	186	826
_____	8	16 (7)	15/4	.38/.10	62	1.57	0.779	19.79	383	570	392	1744
_____	10	16 (7)	15/4	.38/.10	82	2.08	0.955	24.26	503	749	495	2203
_____	12	16 (7)	15/4	.38/.10	82	2.08	0.985	25.02	578	860	578	2571
_____	16	16 (7)	15/4	.38/.10	82	2.08	1.094	27.79	735	1094	784	3489
_____	20	16 (7)	15/4	.38/.10	82	2.08	1.214	30.84	893	1329	991	4407
_____	24	16 (7)	15/4	.38/.10	82	2.08	1.351	34.32	1055	1570	1176	5233
687228	36	16 (7)	15/4	.38/.10	82	2.08	1.549	39.34	1505	2240	1775	7896
_____	50	16 (7)	15/4	.38/.10	112	2.84	1.887	47.93	2142	3188	2477	11017
669085	1	14 (7)	15/4	.38/.10	47	1.19	0.336	8.53	91	135	66	293

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**600 V, PVC/Nylon Insulated, 90°C  
Individual and Overall Shield  
Lead Free  
Type TC**

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

Part Number	# of Pairs	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	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	55	246
631366	4	18 (7)	15/4	.38/.10	47	1.19	0.498	12.65	139	207	110	491
687780	6	18 (7)	15/4	.38/.10	60	1.52	0.595	15.11	194	288	157	700
631374	8	18 (7)	15/4	.38/.10	62	1.57	0.678	17.22	257	382	213	946
_____	10	18 (7)	15/4	.38/.10	62	1.57	0.794	20.17	314	467	273	1213
631382	12	18 (7)	15/4	.38/.10	62	1.57	0.819	20.80	359	534	328	1458
697532	16	18 (7)	15/4	.38/.10	82	2.08	0.951	24.16	490	729	430	1913
671735	20	18 (7)	15/4	.38/.10	82	2.08	1.053	26.75	592	881	545	2426
697540	24	18 (7)	15/4	.38/.10	82	2.08	1.169	29.69	695	1034	656	2917
697557	36	18 (7)	15/4	.38/.10	82	2.08	1.336	33.93	987	1469	975	4339
627919	50	18 (7)	15/4	.38/.10	82	2.08	1.572	39.93	1314	1955	1363	6064
631309	2	16 (7)	15/4	.38/.10	47	1.19	0.480	12.19	127	189	88	391
631317	3	16 (7)	15/4	.38/.10	47	1.19	0.514	13.06	145	216	121	540
631325	4	16 (7)	15/4	.38/.10	62	1.57	0.590	14.99	201	299	176	781
631333	6	16 (7)	15/4	.38/.10	62	1.57	0.694	17.63	270	402	251	1115
631341	8	16 (7)	15/4	.38/.10	62	1.57	0.763	19.38	344	512	338	1505
_____	10	16 (7)	15/4	.38/.10	82	2.08	0.937	23.80	455	677	434	1930
697508	12	16 (7)	15/4	.38/.10	82	2.08	0.966	24.54	521	775	522	2321
697516	16	16 (7)	15/4	.38/.10	82	2.08	1.072	27.23	660	982	684	3045
680405	20	16 (7)	15/4	.38/.10	82	2.08	1.190	30.23	801	1192	868	3860
697524	24	16 (7)	15/4	.38/.10	82	2.08	1.323	33.60	944	1405	1044	4642
680413	36	16 (7)	15/4	.38/.10	92	2.34	1.536	39.01	1370	2039	1552	6905
693564	50	16 (7)	15/4	.38/.10	112	2.84	1.849	46.96	1914	2848	2170	9651

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

**600 V, PVC/Nylon Insulated, 90°C  
Individual and Overall Shield  
Lead Free  
Type TC**

**Shielded Triads with an Overall Shield (STOS), 600 V**

Part Number	# of Triads	Cond. Size AWG	Insulation Thickness		Jacket Thickness		Nominal Diameter over Jacket		Approximate Net Cable Weight		Maximum Pulling Tension	
			mils	mm	mils	mm	inches	mm	lb/kft	kg/km	lbf	N
689547	2	18 (7)	15/4	.38/.10	47	1.19	0.453	11.51	117	170	68	303
631408	4	18 (7)	15/4	.38/.10	62	1.57	0.557	14.15	190	283	149	664
631416	8	18 (7)	15/4	.38/.10	62	1.57	0.718	18.24	327	487	303	1349
_____	10	18 (7)	15/4	.38/.10	82	2.08	0.882	22.40	432	643	376	1674
697565	12	18 (7)	15/4	.38/.10	82	2.08	0.909	23.09	495	737	444	1977
_____	16	18 (7)	15/4	.38/.10	82	2.08	1.008	25.60	628	935	599	2663
_____	20	18 (7)	15/4	.38/.10	82	2.08	1.118	28.40	762	1134	753	3348
631424	24	18 (7)	15/4	.38/.10	82	2.08	1.242	31.55	899	1338	902	4012
631432	36	18 (7)	15/4	.38/.10	82	2.08	1.421	36.09	1279	1903	1351	6010
_____	50	18 (7)	15/4	.38/.10	112	2.84	1.734	44.04	1826	2717	1882	8370
_____	2	16 (7)	15/4	.38/.10	47	1.19	0.509	12.93	156	232	108	483
631390	4	16 (7)	15/4	.38/.10	62	1.57	0.624	15.85	253	377	238	1057
627133	8	16 (7)	15/4	.38/.10	62	1.57	0.810	20.57	444	661	483	2148
_____	10	16 (7)	15/4	.38/.10	82	2.08	0.993	25.22	581	865	599	2665
627141	12	16 (7)	15/4	.38/.10	82	2.08	1.024	26.01	671	999	708	3147
688648	16	16 (7)	15/4	.38/.10	82	2.08	1.138	28.91	858	1277	953	4238
_____	20	16 (7)	15/4	.38/.10	82	2.08	1.265	32.13	1046	1557	1198	5329
683029	24	16 (7)	15/4	.38/.10	82	2.08	1.408	35.76	1238	1842	1436	6386
_____	36	16 (7)	15/4	.38/.10	82	2.08	1.615	41.02	1777	2644	2151	9568
_____	50	16 (7)	15/4	.38/.10	112	2.84	1.967	49.96	2523	3755	2995	13323

**Note:** Dimensions and weights shown are nominal values, subject to standard industry tolerances.

## Electrical Properties

### 300 V – Unshielded Pairs/Triads with an Overall Cable Shield

Conductor Size (AWG)	DC Resistance (ohms/kft @ 20 °C)	Capacitance			
		Pairs		Triads	
		Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)	Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)
20	10.50	48	95	51	102
18	6.64	49	98	52	104
16	4.18	53	107	56	112

### 300 V – Shielded Pairs/Triads with an Overall Cable Shield

Conductor Size (AWG)	DC Resistance (ohms/kft @ 20 °C)	Capacitance			
		Pairs		Triads	
		Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)	Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)
20	10.50	58	115	61	122
18	6.64	61	122	64	125
16	4.18	72	143	76	147

### 600 V – Unshielded Pairs/Triads with an Overall Cable Shield

Conductor Size (AWG)	DC Resistance (ohms/kft @ 20 °C)	Capacitance			
		Pairs		Triads	
		Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)	Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)
18	6.64	39	79	42	103
16	4.18	47	94	50	100
14	2.57	53	106	56	112

### 600 V – Shielded Pairs/Triads with an Overall Cable Shield

Conductor Size (AWG)	DC Resistance (ohms/kft @ 20 °C)	Capacitance			
		Pairs		Triads	
		Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)	Conductor–Conductor (pf/ft)	Conductor–Shield (pf/ft)
18	6.64	74	148	78	156
16	4.18	86	172	90	180

## Belden Cross-Reference by Part Number

Belden Part Number	Nexans Part Number	Description	Belden Part Number	Nexans Part Number	Description
1030A	669580	1pr 16AWG OS 300V	1466A	671123	4pr 18AWG OS 300V
1031A	669598	1tr 16AWG OS 300V	1467A	669633	8pr 18AWG OS 300V
1032A	669614	1pr 18AWG OS 300V	1468A	671115	12pr 18AWG OS 300V
1033A	669606	1pr 20AWG OS 300V	1471A	671107	24pr 18AWG OS 300V
1034A		1tr 16AWG NS 300V	1472A	671099	36pr 18AWG OS 300V
1035A	669937	1pr 16AWG NS 300V	1474A	669671	2pr 18AWG SPOS 300V
1036A	669622	1tr 18AWG OS 300V	1475A	669689	4pr 18AWG SPOS 300V
1037A	631317	3pr16AWG SPOS 600V	1476A	669721	8pr 18AWG SPOS 300V
1038A	627919	50pr18AWG SPOS 600V	1477A	669713	12pr 18AWG SPOS 300V
1039A	631325	4pr 16AWG SPOS 600V	1480A	671412	24pr 18AWG SPOS 300V
1040A	631333	6pr 16AWG SPOS 600V	1481A	671420	36pr 18AWG SPOS 300V
1041A	631341	8pr 16AWG SPOS 600V	1484A	671198	4pr 16AWG OS 300V
1042A	697508	12pr 16AWG SPOS 600V	1485A	671164	8pr 16AWG OS 300V
1043A	697516	16pr 16AWG SPOS 600V	1486A	671172	12pr 16AWG OS 300V
1044A	680405	20pr 16AWG SPOS 600V	1489A	671297	24pr 16AWG OS 300V
1045A	697524	24pr 16AWG SPOS 600V	1490A	671131	36pr 16AWG OS 300V
1046A	680413	36pr 16AWG SPOS 600V	1492A	671222	2pr 16AWG SPOS 300V
1047A	693564	50pr 16AWG SPOS 600V	1493A	671230	4pr 16AWG SPOS 300V
1048A	631358	2pr 18AWG SPOS 600V	1494A	671248	8pr 16AWG SPOS 300V
1049A	631366	4pr 18AWG SPOS 600V	1495A	671255	12pr 16AWG SPOS 300V
1050A	631374	8pr 18AWG SPOS 600V	1498A	671446	24pr 16AWG SPOS 300V
1051A	631382	12pr 18AWG SPOS 600V	1499A	671453	36pr 16AWG SPOS 300V
1052A	697532	16pr 18AWG SPOS 600V	3025A	669739	2pr 18AWG OS 300V
1053A	697540	24pr 18AWG SPOS 600V	3030A	675256	4tr 18AWG OS 300V
1054A	697557	36pr 18AWG SPOS 600V	3031A		4tr 18AWG STOS 300V
1055A	631309	2pr 16AWG SPOS 600V	3032A	675215	8tr 18AWG OS 300V
1056A	671206	4pr 20AWG OS 300V	3033A	676403	8tr 18AWGST OS 300V
1057A	671219	8pr 20AWG OS 300V	3034A	676411	16pr 18AWG OS 300V
1058A	671180	12pr 20AWG OS 300V	3035A	671404	16pr 18AWG SPOS 300V
1059A	671305	16pr 20AWG OS 300V	3036A		16tr 18AWG OS 300V
1060A	671313	24pr 20AWG OS 300V	3037A		16tr 18AWG STOS 300V
1061A	671339	36pr 20AWG OS 300V	3038A		24tr 18AWG OS 300V
1062A	671347	50pr 20AWG OS 300V	3039A	671040	24tr 18AWG STOS 300V
1063A	631275	2pr 18AWG OS 600V	3041A	671065	50pr 18AWG OS 300V
1064A	631283	4pr 18AWG OS 600V	3042A	671081	50pr 18AWG SPOS 300V
1065A	627489	8pr 18AWG OS 600V	3043A	671156	2pr 16AWG OS 300V
1066A	697672	12pr 18AWG OS 600V	3044A		2tr 16AWG OS 300V
1067A	627208	16pr 18AWGOS 600V	3045A		2tr 16AWG STOS 300V
1068A	697276	24pr 18AWG OS 600V	3046A		4tr 16AWG OS 300V
1069A	631242	2pr 16AWG OS 600V	3047A	671271	4tr 16AWG STOS 300V
1070A	631440	4pr 16AWG OS 600V	3048A	671321	8tr 16AWG OS 300V
1071A	631457	8pr 16AWG OS 600V	3049A	671693	8tr 16AWG STOS 300V
1072A	631259	12pr 16AWG OS 600V	3050A	671289	16pr 16AWG OS 300V
1073A	697474	16pr 16AWG OS 600V	3051A	671438	16pr 16AWG SPOS 300V
1074A	697482	24pr 16AWG OS 600V	3052A		16tr 16AWG OS 300V
1075A	669705	2pr 20AWG SPOS 300V	3053A		16tr 16AWG STOS 300V
1076A	669820	4pr 20AWG SPOS 300V	3054A		24tr 16AWG OS 300V
1077A	669697	8pr 20AWG SPOS 300V	3055A		24tr 16AWG STOS 300V

## Belden Cross-Reference by Part Number *(continued)*

Belden Part Number	Nexans Part Number	Description	Belden Part Number	Nexans Part Number	Description
1079A	671362	16pr 20AWG SPOS 300V	3057A	671487	50pr 16AWG SPOS 300V
1080A	671370	24pr 20AWG SPOS 300V	3064A		2tr 18AWG STOS 600V
1081A	671388	36pr 20AWG SPOS 300V	3066A		16tr 18AWG STOS 600V
1082A	671396	50pr 20AWG SPOS 300V	3068A	671054	12tr 18AWG STOS 300V
1083A		4tr 20AWG STOS 300V	3069A	672063	12tr 16AWG STOS 300V
1084A		8tr 20AWG STOS 300V	3080A	669226	1pr 14AWG OS 600V
1085A		12tr 20AWG STOS 300V	3081A	669085	1tr 14AWG OS 600V
1086A		24tr 20AWG STOS 300V	3088A	669101	1pr 18AWG OS 600V
1087A	627190	36pr 18AWG OS 600V	3089A	669119	1tr 18AWG OS 600V
1088A	631291	50pr 18AWG OS 600V	3090A	697391	1pr 16AWG OS 600V
1089A	627216	36pr 16AWG OS 600V	3091A	697888	1tr 16AWG OS 600V
1090A	631267	50pr 16AWG OS 600V			
1091A		20pr 20AWG SPOS 300V			
1092A		16tr 20AWG STOS 300V			
1093A	631408	4tr 18AWG STOS 600V			
1094A	631416	8tr 18AWG STOS 600V			
1095A	697565	12tr 18AWG STOS 600V			
1096A		24tr 18AWG STOS 600V			
1097A	631390	4tr 16AWG STOS 600V			
1098A	627133	8tr 16AWG STOS 600V			
1099A	627141	12tr 16AWG STOS 600V			
1100A		24tr 16AWG STOS 600V			

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## Belden Cross-Reference by Description

Description	300 Volt – OS Overall Shield		600 Volt – OS Overall Shield		300 Volt – SPOS /STOS Shielded Pairs/Triads Overall Shield		600 Volt – SPOS /STOS Shielded Pairs/Triads Overall Shield	
	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number
1pr 20AWG	1033A	669606						
1tr 20AWG	1526A	669747						
2pr 20AWG					1075A	669705		
4pr 20AWG	1056A	671206			1076A	669820		
4tr 20AWG					1083A			
8pr 20AWG	1057A	671219			1077A	669697		
12pr 20AWG	1058A	671180			1078A	671263		
8tr 20AWG					1084A			
16pr 20AWG	1059A	671305			1079A	671362		
12tr 20AWG					1085A			
20pr 20AWG					1091A			
24pr 20AWG	1060A	671313			1080A	671370		
16tr 20AWG					1092A			
36pr 20AWG	1061A	671339			1081A	671388		
24tr 20AWG					1086A			
50pr 20AWG	1062A	671347			1082A	671396		
	16	16 (7)	15/4	.38/.10	82	2.08	1.138	28.91
1pr 18AWG	1032A	669614	3088A	669101				
1tr 18AWG	1036A	669622	3089A	669119				
2pr 18AWG	3025A	669739	1063A	631275	1474A	669671	1048A	631358
2tr 18AWG							3064A	
4pr 18AWG	1466A	671123	1064A	631283	1475A	669689	1049A	631366
6pr 18AWG		675264		697490				687780
4tr 18AWG	3030A	675256			3031A		1093A	631408
8pr 18AWG	1467A	669633	1065A	627489	1476A	669721	1050A	631374
12pr 18AWG	1468A	671115	1066A	697672	1477A	669713	1051A	631382
8tr 18AWG	3032A	675215			3033A	676403	1094A	631416
16pr 18AWG	3034A	676411	1067A	627208	3035A	671404	1052A	697532
12tr 18AWG					3068A	671504	1095A	697565
24pr 18AWG	1471A	671107	1068A	697276	1480A	671412	1053A	697540
16tr 18AWG	3036A				3037A		3066A	
36pr 18AWG	1472A	671099	1087A	627190	1481A	671420	1054A	697557
24tr 18AWG	3038A				3039A	671040	1096A	
50pr 18AWG	3041 A	671065	1088A	631291	3042A	671081	1038A	627919

## Belden Cross-Reference by Description *(continued)*

Description	300 Volt – OS Overall Shield		600 Volt – OS Overall Shield		300 Volt – SPOS /STOS Shielded Pairs/Triads Overall Shield		600 Volt – SPOS /STOS Shielded Pairs/Triads Overall Shield	
	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number	Belden Part Number	Nexans Part Number
1pr 16AWGNS	1035A	669937						
1pr 16AWG	1030A	669580	3090A	697391				
1tr 16AWG NS	1034A							
1tr 16AWG	1031A	669598	3091A	697888				
2pr 16AWG	3043A	671156	1069A	631242	1492A	671222	1055A	631309
3pr 16AWG							1037A	631317
2tr 16AWG	3044A				3045A			
4pr 16AWG	1484A	671198	1070A	631440	1493A	671230	1039A	631325
6pr 16AWG						669754	1040A	631333
4tr 16AWG	3046A				3047A	671271	1097A	631390
8pr 16AWG	1485A	671164	1071A	631457	1494A	671248	1041A	631341
12pr 16AWG	1486A	671172	1072A	631259	1495A	671255	1042A	697508
8tr 16AWG	3048A	671321			3049A	671693	1098A	627133
16pr 16AWG	3050A	671289	1073A	697474	3051A	671438	1043A	697516
12tr 16AWG					3069A	672063	1099A	627141
20pr 16AWG							1044A	
24pr 16AWG	1489A	671297	1074A	697482	1498A	671446	1045A	697524
16tr 16AWG	3052A				3053A			
36pr 16AWG	1490A	671131	1089A	627216	1499A	671453	1046A	680413
24tr 16AWG	3054A				3055A		1100A	
50pr 16AWG	3056A	671149	1090A	631267	3057A	671487	1047A	
1pr 14AWG			3080A	669226				
1tr 14AWG			3081A	669085				

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## Product Data — 300 Volt

		<i>Reference Standard</i>	<i>Insulation</i>	<i>Jacket</i>
Temperature Rating (°C)		UL 2250 and UL 13	105	90
Mechanical Properties	Original Elongation (% minimum)	UL 2250 and UL 13	200	270
	Original Tensile Strength Air Oven Aging (psi minimum)	UL 2250 and UL 13	2800	2000
	Aged Elongation (% retention minimum)	UL 2250 and UL 13	65	60
	Aged Tensile Strength (% retention minimum)	UL 2250 and UL 13	>100	>100
Limiting Oxygen Index		ASTM D 2863	28	27
Cold Bend (no cracks)		UL 2250 and UL 13	@ -25°C	@ -25°C
Deformation		UL 2250 and UL 13	pass	pass
Insulation Resistance Constant (minimum at 15.6°C)		UL 2250 and UL 13	3000	N/A

## Product Data — 600 Volt

		<i>Reference Standard</i>	<i>Insulation</i>	<i>Jacket</i>
Temperature Rating (°C)		UL 1277	90	75
Mechanical Properties	Original Elongation (% minimum)	UL 1277 and 66	250	250
	Original Tensile Strength Air Oven Aging (psi minimum)	UL 1277, 66 and 1581	2800	2500
	Aged Elongation (% retention minimum)	UL 1277, 66 and 1581	70	70
	Aged Tensile Strength (% retention minimum)	UL 1277, 66 and 1581	>100	>100
Limiting Oxygen Index		ASTM D 2863	28	27
Cold Bend (no cracks)		UL 1277 and 66	@ -25°C	@ -25°C
Deformation		UL 1277 and 66	pass	pass
Insulation Resistance Constant (minimum at 15.6°C)		UL 1277 and 66	4000	N/A

## Copper Conductor Data

Size AWG	Stranding	Diameter		Size AWG	Stranding	Diameter	
		<i>inches</i>	<i>mm</i>			<i>inches</i>	<i>mm</i>
22	Solid	0.0253	0.645	22	7 × 0.0096"	0.0288	0.762
20	Solid	0.0320	0.813	20	7 × 0.0121"	0.0363	0.914
19	Solid	0.0359	0.912	19	7 × 0.0142"	0.0426	1.092
18	Solid	0.0403	1.024	18	7 × 0.0152"	0.0456	1.158
16	Solid	0.0508	1.290	16	7 × 0.0192"	0.0576	1.463
14	Solid	0.0641	1.626	14	7 × 0.0242"	0.0726	1.844
12	Solid	0.0808	2.052	12	7 × 0.0305"	0.0915	2.324



**WARNING**

**FLAMMABLE**

Non-metallic covering of electrical cables will burn and under certain conditions may transmit fire when ignited.

**TOXIC**

Burning non-metallic coverings may emit acid gases, which are highly toxic, and may generate dense smoke.

**CORROSIVE**

Emission of acid gases may corrode metal in the vicinity, such as sensitive instruments and reinforcing rod in concrete.

**NOTICE**

Nexans has endeavoured to ensure the accuracy of the data in this publication, however we cannot be liable for the consequences of errors or omissions. All data is subject to change without notice. The installer and/or user assumes all liability for the consequences of the installation and/or use of any of our products in contravention of any applicable law, regulation or code.



[www.nexans.us](http://www.nexans.us)

 **Nexans**

**U.S. Sales Office:**

25 Oakland Avenue, Chester, New York 10918

Tel: 1-866-663-9267 / (845) 469-2141

Fax: (845) 469-9935

**International Sales Office:**

140 Allstate Parkway

Markham, Ontario, Canada L3R 0Z7

Tel: (905) 944-4300 / Fax (905) 944-4330

