



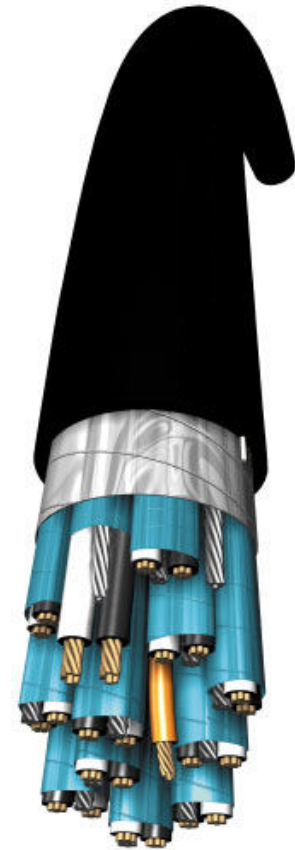
**COPPER INSTRUMENTATION CABLE**  
*Individual/Overall Shield*  
**UL Listed 600 Volt PVC/Nylon Insulated 194°F (90°C)**

**Applications**

- Petrochemical Plants
- Utilities and Industrial Plants
- Power and Control Circuits
- For use in NEC Article 501  
...Class 1 Division 2 Hazardous  
...Locations
- Complies with NEC 725 for  
...use in Class 1 Control Circuits
- For use in Accordance with  
...NEC 340

**Product Features**

- UL Listed Subject 1277 TC
- Rated 90C 600 Volt
- Flame Retardant
- Primaries Type TFN and THHN
- Passes IEEE 383 Flame Test
- Sunlight Resistant
- Direct Burial
- CPE and TPE Constructions  
...Are Also Available



**Product Specifications**

Conductors: Solid or stranded, bare or tinned copper  
 12 to 18 AWG (2.44 to 1.2MM)  
 (Thermocouple conductors are also available)

Insulation: Nominal .016" (.40MM) flame retardant PVC

Insulation Jacket: Nominal .0045" (.11MM) clear nylon

Color Code: Per customer request, pairs or triads numbered

Construction: Twisted pairs or triads

Individual Shield: .00135" (.03MM) aluminum/polyester tape,  
 25% overlap

Individual Drain Wire: 22 AWG (.61MM) 7-strand tinned copper

Communication Wire: 18 AWG (1.2MM) 7-strand copper insulated with  
 nominal  
 .016" (.40MM) orange PVC/.0045" (.11MM) clear  
 nylon

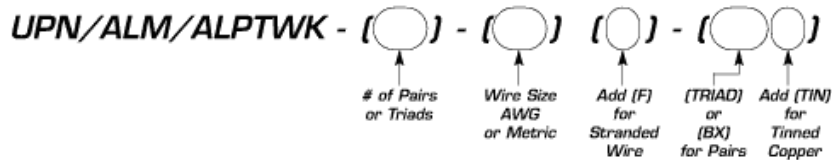
Cable Shield: (4 pair/triad and larger)

.002" (.05MM) aluminum/polyester tape,  
 Cable Drain Wire: 25% overlap

Outer Jacket: 20 AWG (.91MM) 7-strand tinned copper

Flame retardant PVC with ripcord under jacket

**Ordering Code**



**(Call for CSA Data)**

Wire Size	Numbers of Pairs/Triads	Outer Jacket Thickness		Outer Diameter		Bend Radius		Pull Tension		Net Weight	
		inches	(MM)	inches	(MM)	inches	(MM)	LB	KG	LB/MF	KG/KM
<b>14 AWG</b>	2....	.064	(1.63)	.587	(14.9)	4.7	(119)	149	(68)	147	(219)
<b>(1.80MM)</b>	4....	.064	(1.63)	.677	(17.2)	5.4	(138)	290	(131)	234	(348)
<b>7-Strand</b>	6....	.064	(1.63)	.808	(20.5)	6.5	(164)	431	(171)	326	(485)
	8....	.085	(2.15)	.919	(23.3)	7.4	(187)	572	(260)	446	(664)

12....	.085	(2.15)	1.076	(27.3)	8.6	(219)	854	(388)	622	(926)
16....	.085	(2.15)	1.199	(30.5)	9.6	(244)	1136	(516)	793	(1180)
20....	.085	(2.15)	1.330	(33.8)	10.6	(270)	1418	(645)	965	(1436)
24....	.085	(2.15)	1.444	(36.7)	11.6	(293)	1700	(773)	1134	(1688)
36....	.085	(2.15)	1.613	(41.0)	12.9	(328)	2546	(1157)	1610	(2396)
....4	.064	(1.63)	.746	(18.9)	6.0	(152)	420	(191)	300	(446)
....8	.085	(2.15)	1.013	(25.7)	8.1	(206)	832	(378)	576	(857)
....12	.085	(2.15)	1.223	(31.1)	9.8	(249)	1244	(565)	819	(1219)
....24	.120	(3.05)	1.756	(44.6)	14.0	(357)	2480	(1127)	1599	(2379)

<b>16 AWG (1.47MM) 7-Strand</b>	2....	.047	(1.19)	.500	(12.7)	4.0	(102)	100	(45)	101	(150)
	4....	.064	(1.63)	.613	(15.6)	4.9	(125)	192	(87)	180	(268)
	6....	.064	(1.63)	.728	(18.5)	5.8	(150)	284	(129)	248	(369)
	8....	.064	(1.63)	.789	(20.0)	6.3	(160)	376	(171)	308	(458)
	12....	.085	(2.15)	.969	(24.6)	7.8	(197)	560	(255)	468	(696)
	16....	.085	(2.15)	1.077	(27.4)	8.6	(219)	744	(338)	591	(879)
	20....	.085	(2.15)	1.193	(30.3)	9.5	(242)	928	(422)	715	(1064)
	24....	.085	(2.15)	1.293	(32.8)	10.3	(263)	1112	(505)	837	(1245)
	36....	.085	(2.15)	1.442	(36.6)	11.5	(293)	1664	(756)	1174	(1747)
	....4	.064	(1.63)	.674	(17.1)	5.4	(137)	274	(125)	225	(335)
	....8	.085	(2.15)	.914	(23.2)	7.3	(186)	540	(245)	428	(637)
	....12	.085	(2.15)	1.098	(27.9)	8.8	(223)	806	(366)	600	(893)
	....24	.085	(2.15)	1.505	(38.2)	12.0	(306)	1604	(729)	1091	(1623)

<b>18 AWG (1.2MM) 7-Strand</b>	2....	.047	(1.19)	.454	(11.5)	3.6	(92)	70	(32)	82	(122)
	4....	.064	(1.63)	.558	(14.2)	4.5	(113)	132	(60)	144	(214)
	6....	.064	(1.63)	.660	(16.7)	5.3	(134)	194	(88)	195	(290)
	8....	.064	(1.63)	.713	(18.1)	5.7	(145)	256	(116)	240	(357)
	12....	.085	(2.15)	.877	(22.3)	7.0	(178)	380	(173)	365	(543)
	16....	.085	(2.15)	.973	(24.7)	7.8	(198)	504	(229)	457	(680)
	20....	.085	(2.15)	1.075	(27.3)	8.6	(218)	628	(285)	550	(818)
	24....	.085	(2.15)	1.163	(29.5)	9.3	(236)	752	(342)	640	(952)
	36....	.085	(2.15)	1.293	(32.8)	10.3	(263)	1124	(511)	887	(1320)
	....4	.064	(1.63)	.612	(15.5)	4.9	(124)	184	(84)	175	(260)
	....8	.064	(1.63)	.786	(20.0)	6.3	(160)	360	(164)	297	(442)
	....12	.085	(2.15)	.991	(25.2)	7.9	(201)	536	(244)	456	(679)
	....24	.085	(2.15)	1.350	(34.3)	10.8	(274)	1064	(484)	814	(1211)

The products referenced above represent the most popular constructions. Other constructions can be manufactured to meet individual specification and application requirements. Contact factory for additional information.

**Electrical Characteristics**

Insulation passes 6000 V ac spark test per UL Subject 1277.  
 Completed cable passes a dielectric test of 3000 V dc for  
 60 seconds, conductor to conductor and conductor to shield, per UL Subject 1277.



**TE Wire & Cable LLC**  
 107 North Fifth Street  
 Saddle Brook, NJ 07663-6167  
 Toll Free: 888-483-9473  
 Tel: 201-845-9400  
 Fax: 201-291-1190



A Marmon Wire & Cable/Berkshire Hathaway Company