



# COPPER INSTRUMENTATION CABLE

*Individual/Overall Shield*  
*UL Listed 300 Volt PVC Insulated 221°F (105°C)*

### Applications

- Petrochemical Plants
- Utilities and Industrial Plants
- Instrumentation Circuits
- For use in NEC Article 725
  - ...Class 1 Division 2 Hazardous
  - ...Locations
- Complies with NEC 725 for
  - ...use in Class 2 and Class 3
  - Circuits

### Product Features

- UL Listed Subject 13 PLTC
- Rated 105C 300 Volt
- Flame Retardant
- Passes IEEE 383 Flame Test
- Passes VW-1 Flame Test
- Sunlight Resistant
- Available as Type ITC
- CPE and TPE Constructions
  - ...are also available



### Product Specifications

Conductors: Solid or stranded, bare or tinned copper  
 12 to 22 AWG (2.44 to .61 MM)

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

Color Code: Pairs-black & white, numbered. Triads-black, white & red, numbered (other colors available)

Construction: Twisted pairs or triads

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

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

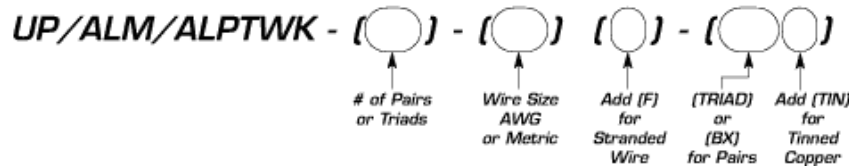
Communication Wire: 22 AWG (.61MM) 7-strand copper insulated with  
 nominal .015" (.38MM) orange PVC (4 pair/triad and larger)

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

Cable Drain Wire:  
 20 AWG (.91MM) 7-strand tinned copper

Outer Jacket:  
 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
16 AWG	2...	.053	(1.35)	.483	(12.3)	3.9	(98)	100	(45)	111	(165)
(1.47MM)	4...	.053	(1.35)	.559	(14.2)	4.5	(114)	192	(87)	169	(251)
7-Strand	8...	.064	(1.63)	.741	(18.8)	5.9	(151)	376	(171)	309	(460)
	10...	.064	(1.63)	.866	(22.0)	6.9	(176)	468	(213)	376	(560)

	12...	.064	(1.63)	.873	(22.2)	7.0	(178)	560	(255)	432	(643)
	16...	.074	(1.88)	.990	(25.1)	7.9	(201)	744	(338)	569	(847)
	20...	.074	(1.88)	1.072	(27.2)	8.6	(218)	928	(422)	688	(1023)
	24...	.074	(1.88)	1.190	(30.2)	9.5	(242)	1112	(505)	813	(1210)
	36...	.085	(2.16)	1.350	(34.3)	10.8	(274)	1664	(756)	1181	(1757)
	...4	.064	(1.63)	.638	(16.2)	5.1	(130)	274	(125)	233	(347)
	...8	.064	(1.63)	.809	(20.5)	6.5	(164)	540	(245)	409	(609)
	...12	.074	(1.88)	1.012	(25.7)	8.1	(206)	806	(366)	604	(899)
	...24	.085	(2.16)	1.410	(35.8)	11.3	(287)	1604	(729)	1143	(1700)
<b>18 AWG (1.2MM) 7-Strand</b>	2...	.053	(1.35)	.432	(11.0)	3.5	(88)	70	(32)	90	(134)
	4...	.053	(1.35)	.497	(12.6)	4.0	(101)	132	(60)	128	(191)
	8...	.064	(1.63)	.657	(16.7)	5.2	(134)	256	(116)	230	(343)
	10...	.064	(1.63)	.763	(19.4)	6.1	(155)	318	(145)	279	(415)
	12...	.064	(1.63)	.770	(19.6)	6.2	(156)	380	(173)	317	(471)
	16...	.064	(1.63)	.853	(21.7)	6.8	(173)	504	(229)	402	(597)
	20...	.074	(1.88)	.943	(23.9)	7.5	(192)	628	(285)	502	(747)
	24...	.074	(1.88)	1.044	(26.5)	8.4	(212)	752	(342)	590	(877)
	36...	.074	(1.88)	1.162	(29.5)	9.3	(236)	1124	(511)	822	(1223)
	...4	.053	(1.35)	.546	(13.9)	4.4	(111)	184	(84)	162	(241)
	...8	.064	(1.63)	.723	(18.4)	5.8	(147)	360	(164)	284	(423)
	...12	.064	(1.63)	.870	(22.1)	7.0	(177)	536	(244)	402	(598)
	...24	.074	(1.88)	1.214	(30.8)	9.7	(247)	1064	(484)	720	(1071)
<b>20 AWG (0.91MM) 7-Strand</b>	2...	.042	(1.07)	.372	(9.4)	3.0	(76)	50	(23)	65	(97)
	4...	.053	(1.35)	.451	(11.5)	3.6	(92)	92	(42)	105	(156)
	8...	.053	(1.35)	.572	(14.5)	4.6	(116)	176	(80)	173	(257)
	10...	.064	(1.63)	.687	(17.4)	5.5	(140)	218	(99)	220	(327)
	12...	.064	(1.63)	.693	(17.6)	5.6	(141)	260	(118)	251	(373)
	16...	.064	(1.63)	.766	(19.5)	6.1	(156)	344	(156)	313	(466)
	20...	.064	(1.63)	.827	(21.0)	6.6	(168)	428	(195)	375	(558)
	24...	.074	(1.88)	.936	(23.8)	7.5	(191)	512	(233)	453	(674)
	36...	.074	(1.88)	1.040	(26.4)	8.3	(211)	764	(347)	635	(945)
	...4	.053	(1.35)	.493	(12.5)	3.9	(100)	124	(56)	128	(191)
	...8	.064	(1.63)	.650	(16.5)	5.2	(132)	240	(109)	234	(348)
	...12	.064	(1.63)	.779	(19.8)	6.2	(158)	356	(162)	326	(485)
	...24	.074	(1.88)	1.082	(27.5)	8.6	(220)	704	(320)	610	(908)

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 3000 V ac spark test per UL Subject 13.  
Completed cable passes a dielectric test of 2500 V dc for 10 seconds, conductor to conductor to shield, per UL Subject 13.



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A Marmon Wire & Cable/Berkshire Hathaway Company