



600V CU PVC-Nylon/PVC Pairs POS

Type TC Instrumentation Cable 600 Volt Copper Conductors PVC/Nylon Insulated Singles with Overall Shield POS. PVC Jacket Heat, Moisture, Oil and Sunlight Resistant RoHS rated for -25°C to 90°C



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B stranded bare copper per ASTM B3 and B8
2. **Insulation:** Premium Grade Polyvinyl Chloride (PVC) plus nylon. Black/White alpha-numeric print alternate and inverted. 1-ONE, 2-TWO
3. **Overall Drain Wire:** Tinned Copper. Sized two AWG sizes smaller than pair size. For #18 awg pair: Drain is 20 awg. For #16 awg pair: Drain is 18 awg.
4. **Binder:** Mylar binder
5. **Overall Shielded:** 100% coverage aluminum/polyester foil shield with a drain wire.
6. **Rip Cord:** Rip cord under jacket for ease of removal
7. **Jacket:** Black sunlight, oil and moisture resistant Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Tanner's Instrumentation Cables Type TC UL 1277 are suitable for installations as outlined in NEC Article 336 for process control and instrumentation, control circuits for operation and interconnection of protective and signaling devices and for general use in manufacturing, industrial and commercial distribution systems. Cables are constructed with 7-strand copper conductors insulated with nylon covered PVC. The paired conductors are colored black, white, and alpha-numeric printed. The overall assembly is covered with an aluminum polyester foil with 100% coverage and a tinned drain wire. The cable is suited for use in cable trays, raceways, conduit, aerial (when supported with a messenger) and direct burial. The cable is rated for -25°C to 90°C and rated for Class I Div II hazardous locations, sun and oil resistant. The jacket is black PVC with a nylon ripcord for easy removal. 1 Pair is not TC-ER Rated.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 66 Fixture Wire Type TFN
- UL 1277 Electrical Power and Control Tray Cables
- IEEE 383 Flame Test (70,000 btu)
- EPA 40 CFR, Part 26, Subpart C heavy metals per Table 1, TCLP method
- RoHS-2 (European Directive 2011/65/EU)
- NEC Article 336 Power and Control Tray Cable





SAMPLE PRINT LEGEND:

{SQFTG} XX AWG (X.XXmm²) X/PAIRS PVC/NYLON POS TYPE TC-ER (UL) 600V 90°C DRY 75°C WET DIR BUR SUN
RES MADE IN USA ROHS-2

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Number of Pairs	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25°C
	AWG/Kcmil	pair	inch	mil	mil	inch	lb/1000ft	inch	Ω/1000ft
24IP6-1801	18	1	0.045	15	45	0.264	38	1.5	6.669
24IP6-1802	18	2	0.045	20	45	0.379	65	2.4	6.669
24IP6-1804	18	4	0.045	20	45	0.433	95	2.5	6.669
24IP6-1808	18	8	0.045	15	60	0.604	194	3.6	6.669
24IP6-1812	18	12	0.045	20	60	0.710	269	4.3	6.669
24IP6-1824	18	24	0.045	20	80	1.005	496	6.0	6.669
24IP6-1836	18	36	0.045	20	80	1.145	692	6.8	6.669
24IP6-1601	16	1	0.056	15	45	0.292	49	1.7	4.181
24IP6-1602	16	2	0.056	15	45	0.423	86	2.5	4.181
24IP6-1603	16	3	0.056	15	45	0.453	145	2.7	4.181
24IP6-1608	16	8	0.056	20	60	0.651	244	3.9	4.181
24IP6-1612	16	12	0.056	15	80	0.829	400	4.9	4.181
24IP6-1616	16	16	0.056	20	80	0.913	475	5.4	4.181
24IP6-1624	16	24	0.056	20	80	1.119	677	6.7	4.181
24IP6-1636	16	36	0.056	20	80	1.278	957	7.6	4.181

All dimensions are nominal and subject to normal manufacturing tolerances

† 1 Pair is not TC-ER Rated.
! Tinned copper phase conductors





Table 2 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Number of Pairs	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25°C
	AWG/Kcmil	pair	inch	mm	mm	mm	lb/km	mm	Ω/km
24IP6-1801	18	1	0.045	0.38	1.14	6.71	57	38.10	21.88
24IP6-1802	18	2	0.045	0.51	1.14	9.63	97	60.96	21.88
24IP6-1804	18	4	0.045	0.51	1.14	11.00	141	63.50	21.88
24IP6-1808	18	8	0.045	0.38	1.52	15.34	289	91.44	21.88
24IP6-1812	18	12	0.045	0.51	1.52	18.03	400	109.22	21.88
24IP6-1824	18	24	0.045	0.51	2.03	25.53	738	152.40	21.88
24IP6-1836	18	36	0.045	0.51	2.03	29.08	1030	172.72	21.88
24IP6-1601	16	1	0.056	0.38	1.14	7.42	73	43.18	13.72
24IP6-1602	16	2	0.056	0.38	1.14	10.74	128	63.50	13.72
24IP6-1603	16	3	0.056	0.38	1.14	11.51	216	68.58	13.72
24IP6-1608	16	8	0.056	0.51	1.52	16.54	363	99.06	13.72
24IP6-1612	16	12	0.056	0.38	2.03	21.06	595	124.46	13.72
24IP6-1616	16	16	0.056	0.51	2.03	23.19	707	137.16	13.72
24IP6-1624	16	24	0.056	0.51	2.03	28.42	1007	170.18	13.72
24IP6-1636	16	36	0.056	0.51	2.03	32.46	1424	193.04	13.72

Typical Electrical Specifications for Each Pair

Size	Capacitance	Inductance
AWG	µF/ft	µH/ft
18	40.66	0.0957
16	48.51	0.0895

