

## 300V CU PVC/PVC Pairs POS

Type PLTC/ITC Instrumentation Cable 300 Volt Copper Conductors PVC Insulated Singles Overall Shield POS. PVC Jacket Heat, Moisture, and Sunlight Resistant RoHS rated for -30°C to 105°C



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Class B stranded bare copper per ASTM B-3 and B-8
- Insulation:** Twisted pair with Premium Grade Polyvinyl Chloride (PVC) .Color code: Black/White alpha-numeric print alternate and inverted. 1-ONE, 2-TWO
- Overall Drain Wire:** Tinned Copper
- Overall Shielded:** 100% coverage aluminum/polyester foil shield with a drain wire as shown in step 3
- Rip Cord:** Rip cord under jacket for ease of removal
- Jacket:** Black sunlight, and moisture resistant Polyvinyl Chloride (PVC)

### APPLICATIONS AND FEATURES:

Southwire's Instrumentation Cables Type PLTC per UL 13 and Type ITC per UL 2250 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 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 -30°C to 105°C and rated for class I Div II hazardous locations, and sun resistant. The jacket is black PVC with a nylon ripcord for easy removal.

### SPECIFICATIONS:

- UL 13 Standard for Power-Limited Circuit Cables
- UL 2250 Standard for Instrumentation Tray Cable
- IEEE 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- 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:

SOUTHWIRE® XX AWG XX PAIRS PVC/PVC TYPE PLTC/ITC E220129 V3 & V4 (UL) 105°C SUN RES FT4/IEEE 1202 SEQUENTIAL MARKING



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | [www.southwire.com](http://www.southwire.com)



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## 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
578873	18	1	0.045	15	35	0.234	32	1.4	6.669
591448	18	2	0.045	15	50	0.411	71	2.4	6.669
591450	18	4	0.045	15	50	0.446	103	2.6	6.669
591452	18	8	0.045	15	65	0.579	183	3.4	6.669
566928	16	1	0.056	15	35	0.255	42	1.5	4.181
596821	16	1	0.056	15	50	0.290	49	1.7	4.181
596822	16	2	0.056	15	50	0.409	86	2.4	4.181
596816	16	4	0.056	15	65	0.516	146	3.0	4.181
596817	16	8	0.056	15	75	0.662	260	3.9	4.181

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

## 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
578873	18	1	0.045	0.38	0.89	5.94	48	35.56	21.88
591448	18	2	0.045	0.38	1.27	10.44	106	60.96	21.88
591450	18	4	0.045	0.38	1.27	11.33	153	66.04	21.88
591452	18	8	0.045	0.38	1.65	14.71	272	86.36	21.88
566928	16	1	0.056	0.38	0.89	6.48	63	38.10	13.72
596821	16	1	0.056	0.38	1.27	7.37	73	43.18	13.72
596822	16	2	0.056	0.38	1.27	10.39	128	60.96	13.72
596816	16	4	0.056	0.38	1.65	13.11	217	76.20	13.72
596817	16	8	0.056	0.38	1.91	16.81	387	99.06	13.72

## Typical Electrical Specifications for Each Pair

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

