

## 300V CU PVC PAIRS PVC POS Instrumentation

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, oil 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, sun and oil 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



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**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Number of Pairs	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25° C
	AWG/ Kcmil	pair	mil	mil	inch	lb/1000ft	inch	Ω/1000ft
578873	18	1	15	52	0.258	38	1.03	6.66
591448	18	2	15	52	0.385	72	1.54	6.66
591450	18	4	15	52	0.44	107	1.76	6.66
591452	18	8	15	65	0.575	191	2.3	6.66
TBA	18	12	15	75	0.668	264	2.67	6.66
TBA	18	24	15	75	0.875	463	3.5	6.66
TBA	18	36	15	85	1.036	696	4.14	6.66
596821	16	1	15	52	0.282	49	1.13	4.18
596822	16	2	15	52	0.407	84	1.63	4.18
596816	16	4	15	65	0.516	154	2.06	4.18
596817	16	8	15	75	0.662	270	2.65	4.18
TBA	16	12	15	75	0.77	372	3.08	4.18
TBA	16	24	15	85	1.033	659	5.17	4.18
TBA	16	36	15	85	1.168	969	5.84	4.18

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	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	DC Resistance @ 25° C
	AWG/ Kcmil	pair	mm	mm	mm	lb/km	mm	Ω/km
578873	18	1	0.38	1.32	6.55	57	26.16	21.85
591448	18	2	0.38	1.32	9.78	107	39.12	21.85
591450	18	4	0.38	1.32	11.18	159	44.70	21.85
591452	18	8	0.38	1.65	14.60	284	58.42	21.85
TBA	18	12	0.38	1.91	16.97	393	67.82	21.85
TBA	18	24	0.38	1.91	22.22	689	88.90	21.85
TBA	18	36	0.38	2.16	26.31	1036	105.16	21.85
596821	16	1	0.38	1.32	7.16	73	28.70	13.71
596822	16	2	0.38	1.32	10.34	125	41.40	13.71
596816	16	4	0.38	1.65	13.11	229	52.32	13.71
596817	16	8	0.38	1.91	16.81	402	67.31	13.71
TBA	16	12	0.38	1.91	19.56	554	78.23	13.71
TBA	16	24	0.38	2.16	26.24	981	131.32	13.71
TBA	16	36	0.38	2.16	29.67	1442	148.34	13.71



## Typical Electrical Specifications for Each Pair

Size	Capacitance	Inductance
AWG	$\mu\text{F}/\text{ft}$	$\mu\text{H}/\text{ft}$
18	40.66	0.0957
16	48.51	0.0895

