

## 300 VOLT INSTRUMENTATION TFFN/PVC PAIRS, POS, TYPE PLTC/ITC

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



Image not to scale. See Table 1 for Dimensions

### CONSTRUCTION:

1. **Conductors:** Class B stranded bare copper per ASTM B-3 and B-8
2. **Insulation:** Premium Grade Polyvinyl Chloride (PVC) .Color code: Black/White alpha-numeric print alternate and inverted. 1-ONE, 2-TWO
3. **Twisted Pair:** Black/White pairs
4. **Binder:** Mylar binder
5. **Overall Drain Wire:** Tinned Copper
6. **Overall Shielded:** 100% coverage aluminum/polyester foil shield with a drain wire as shown in step 5
7. **Rip Cord:** Rip cord under jacket for ease of removal
8. **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 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 -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 Standard 13 Type PLTC
- UL Standard 2250 Type ITC
- Passes IEEE 383 Flame Test (70,000 btu)
- Passes FT4/IEEE 1202 Flame Test
- NEC Article 336
- EPA 40 CFR, Part 26, Subpart C, heavy metals per Table 1, TCLP method
- RoHS-2 (European Directive 2011/65/EU)

### SAMPLE PRINT LEGEND:

SOUTHWIRE® XX AWG XX PAIRS PVC/PVC TYPE PLTC/ITC E176494 (UL) 105°C SUN AND OIL RES FT4/IEEE 1202 SEQUENTIAL MARKING



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**Table 1 – Measurements and Electrical**

Stock Code	Cond Size AWG	No. of Pairs.	Insulation Thickness		Jacket Thickness		Nominal OD (8)		Nominal Weight		DC Resistance		Min Bend Radius	
			mils	mm	mils	mm	Inches	mm	Lbs/MFT	kg/km	Ω/MFT	Ω/km	Inches	mm
578873	18	1	15	0.38	52	1.32	0.258	6.55	38	57	6.66	21.84	1.03	26.21
TBA	18	2	15	0.38	52	1.32	0.385	9.78	72	107	6.66	21.84	1.54	39.12
TBA	18	4	15	0.38	52	1.32	0.44	11.18	107	159	6.66	21.84	1.76	44.70
TBA	18	8	15	0.38	65	1.65	0.575	14.61	191	284	6.66	21.84	2.30	58.42
TBA	18	12	15	0.38	75	1.91	0.668	16.97	264	393	6.66	21.84	2.67	67.87
TBA	18	24	15	0.38	75	1.91	0.875	22.23	463	689	6.66	21.84	3.50	88.90
TBA	18	36	15	0.38	85	2.16	1.036	26.31	696	1036	6.66	21.84	4.14	105.26
596821	16	1	15	0.38	52	1.32	0.282	7.16	49	73	4.18	13.71	1.13	28.65
TBA	16	2	15	0.38	52	1.32	0.407	10.34	84	125	4.18	13.71	1.63	41.35
TBA	16	4	15	0.38	65	1.65	0.516	13.11	154	229	4.18	13.71	2.06	52.43
TBA	16	8	15	0.38	75	1.91	0.662	16.81	270	402	4.18	13.71	2.65	67.26
TBA	16	12	15	0.38	75	1.91	0.77	19.56	372	554	4.18	13.71	3.08	78.23
TBA	16	24	15	0.38	85	2.16	1.033	26.24	659	981	4.18	13.71	5.17	131.19
TBA	16	36	15	0.38	85	2.16	1.168	29.67	969	1442	4.18	13.71	5.84	148.34

All dimensions are nominal and subject to normal manufacturing tolerances

Typical Electrical Specifications for Each Pair		
Size	Capacitance	Inductance
18 AWG	40.66 pF/ft.	0.0957 μ Henry/ft.
16 AWG	48.51 pF/ft.	0.0895 μ Henry/ft.