



Wire Armored Type P-OS

Type ITC/PLTC Armored Instrumentation Cable

Single Pair or Triads - Overall Shield

300 Volts - 105°C Rating

For Cable Tray Use



- A** Bare Stranded Copper Conductor
- B** Okoseal Insulation
- C** Twisted Pairs/Triads
- D** Tinned Stranded Copper Drain Wire
- E** Aluminum/Polyester Tape
- F** Rip Cord
- G** Black Okoseal Jacket
- H** Wire Armor
- J** Outer Black Okoseal Jacket

Specifications

Conductors: Bare soft annealed copper, Class B, 7-strand concentric per ASTM B-8.

Insulation: Flame-retardant Okoseal® (PVC) per UL 13 and UL 2250, 15 mils nominal thickness, 105°C temperature rating.

Conductor Identification: Pigmented black and white in pairs, black, red and white in triads.

Assembly: Pair or triad assembled with left-hand lay.

Cable Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a #18 AWG 7-strand tinned copper drain wire.

Inner Jacket: Black, flame-retardant, low temperature Okoseal per UL 13 and UL 2250. A rip cord is laid longitudinally under the jacket to facilitate removal.

Wire Armor: A serving of soft annealed galvanized steel wires applied with a left-hand lay and 90% minimum coverage.

Outer Jacket: Black, flame-retardant, low temperature Okoseal per UL 13 and UL 2250.

Classifications: UL Listed as ITC/PLTC — Instrument Tray Cable/Power Limited Tray Cable for use in accordance with Article 335 and Article 722 of the 2023 National Electrical Code.

These cables comply with UL 2250 for ITC and UL 13 for PLTC, CL2 and CL3.

Applications

Okonite® SWA Type P-OS (Pairs/triads - Overall Shield) instrumentation cables are designed for use as instrumentation, process control, in Class 2 or 3 Power-Limited circuits where shielding against external interference is required, indoors or outdoors, in wet or dry locations with conductor operating temperatures up to 105°C, in cable trays, in raceways, supported by a messenger wire; in Class I, Division 2, Class II, Division 2 or Class III, Division 1 hazardous locations. Also for use as Power Limited fire protective signaling cable (FPL) per NEC Article 760. For use on ITC

non class 2 or 3 circuits up to 150 volts and 5 amps (750VA).

The overall shield eliminates most of the static interference from the electric field radiated by power cables and other electrical equipment.

The wire armor provides excellent longitudinal strength for use as a messenger cable or for support in vertical drops (NEC Article 300.19) and provides physical protection against mechanical damage.

For dc service in wet locations X-Olene® insulation is recommended.

Product Features

- Passes UL 13 & IEEE 383-1974 flame test for use in cable tray.
- Sunlight & oil resistant.
- 100% shield coverage for reduced electromagnetic noise pick-up.
- Individual pair or triad is color coded for simplified hook-up.
- Good noise rejection.
- Excellent longitudinal strength.
- Excellent Cut-through resistance.
- Suitable for low temperature installation of -40°C.

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Single Pair or Triad - Overall Shield 300V - 105°C Rating
For Cable Tray Use



Product Data Section 5: Sheet 8

Conductors: 16 AWG
Okoseal Insulation: 15 mils

Catalog Number	Number of Pairs	Number of Triads	Inner Jacket Thickness - mils	Inner Jacket Nominal OD - Inches	Armor Wires No. x SWG	Armor Nominal O.D. - Inches	Outer Jacket - Inches	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
264-10-8401	1		35	.26	33 x 24	0.30	35	.39	.12	125	136
264-15-8401	1	1	35	.27	35 x 24	0.32	35	.41	.14	141	164

ELECTRICAL SPECIFICATIONS Per UL Standard 13 & 2250

Conductor Resistance, nominal.....ohms/1000 ft. @20°C 16 AWG.....	4.1
Insulation Test Voltage (spark test).....	5000 Volts ac
Dielectric Test Voltage	1500 Volts ac for 15 sec.
Insulation Resistance Constant @60°F, minimum (natural material typical value).....	2000 Megohms-1000 ft.
Loop Resistance, nominal (2 conductor).....ohms-1000 ft @20°C 16 AWG.....	8.2
Mutual Capacitance, Typical	76PF/ft.

† Cross-sectional area for calculation of cable tray fill in accordance with NEC Section 392.22.

Length Tolerance: Cut lengths of 1000 feet or longer are subject to a tolerance of ± 10%; less than 1000 feet ± 15%.

