Type P-OS

Type ITC/PLTC Instrumentation Cable

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

A Bare Stranded Copper Conductor
B Okoseal Insulation
C Twisted Pair/Triad
D Tinned Stranded Copper Drain Wire
E Aluminum/Polyester Tape
F Rip Cord
G 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/synthetic polymer tape overlapped to provide 100% coverage, and a 7-strand tinned copper drain wire.

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.

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 type P-OS (Pair/Triad - Overall Shield) instrumentation cables are designed for use as instrumentation, process control, and computer cables in ITC non-classified or labeled circuits up to 150 volts and 5 amps (750VA) and in Class 2 or 3 Power-Limited circuits where shielding against external interference is required, but shielding against interference among groups is not 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. Suitable Class I, Division 2, Class II, Division 2, or Class III, Division 2 hazardous locations. Also for use as Power-Limited fire protective signaling cable (FPL) per NEC Code 760.

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

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

Product Features

- Passes the UL 1581 & IEEE 383-1974 vertical tray flame tests.
- Sunlight resistant and oil resistant.
- Individual pairs or triads are color coded for simplified hook-up.
- Good noise rejection.
- Excellent weathering characteristics.
- OSHA Acceptable.
- Flexible, easy to handle and terminate.
- Twisted with 100% shield coverage to reduce electromagnetic noise pick-up.
- Suitable for low temperature installation of -40°C.

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Okoseal Insulation 15 mils

Catalog Number	Conductor Size (AWG)	Number of Pairs	Number of Triads	Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal Cable O.D. - (In.)	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
264-10-1101	22	1		12	35	0.20	0.03	22	27
264-15-1101			1			0.21	0.03	26	31
264-10-2201	20	1		12		0.22	0.04	27	32
264-15-2201			1			0.23	0.04	33	38
▲ 264-10-3301	18	1		15		0.23	0.05	35	40
▲ 264-15-3301			1			0.24	0.05	43	48
▲ 264-10-4401	16	1		15		0.25	0.05	47	52
264-10-4901*		1				0.25	0.05	47	52
▲ 264-15-4401			1			0.26	0.06	58	59

* Tinned Copper Conductor

ELECTRICAL SPECIFICATIONS
Per UL Standard 13 & 2250

Conductor Resistance, nominal .....ohms/1000 ft. @20°C
- 22 AWG 16.5
- 20 AWG 10.3
- 18 AWG 6.5
- 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
- 22 AWG 33.0
- 20 AWG 20.8
- 18 AWG 13.0
- 16 AWG 8.2

Mutual Capacitance (PF/ft.)*
- #22 34
- #20 37
- #18 41
- #16 44

*Typical Value

▲ Authorized Stock Item: Available from our Customer Service Center.

† **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%.

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