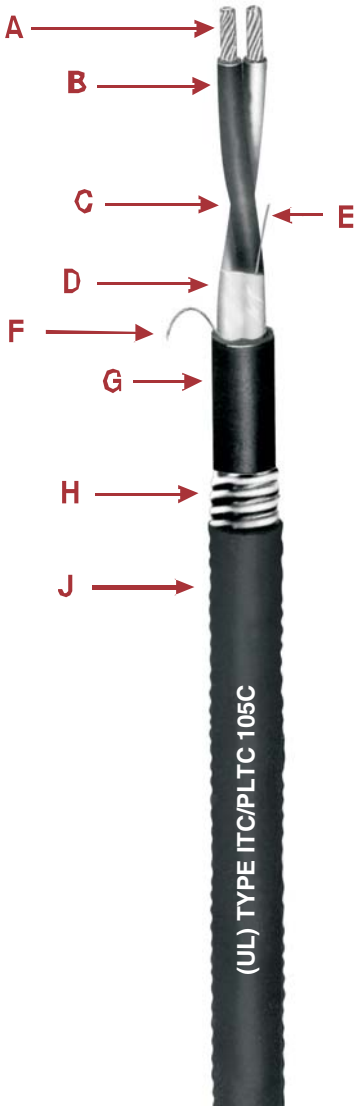
Loxarmor Type P-OS

Type ITC/PLTC Armored 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 Aluminum/Polyester Tape
E Tinned Stranded Copper Drain Wire
F Rip Cord
G Inner Black Okoseal Jacket
H Galvanized Steel Interlocking Loxarmor
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; white conductor numerically printed for group identification.

Assembly: Pairs or triads assembled with left-hand lay. Flame-retardant, non-wicking fillers included where required to provide a round cable.

Cable Shield: Aluminum/synthetic polymer 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.

Loxarmor Sheath: An interlocking, galvanized steel armor provides mechanical protection against cut-through and crushing. All four sides of the steel tape are galvanized to prevent corrosion.

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 Loxarmor Type P-OS (Pair/triad - Overall Shield) instrumentation cables are designed for use as instrumentation, process control 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; under raised floors. Suitable 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. The Loxarmor (interlocked steel) sheath provides physical protection against mechanical damage. It may be installed in both exposed and concealed work, secured to supports not greater than 6 feet apart.

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 13 & IEEE 383-1974 vertical tray flame tests.
- Passes the 210,000 BTU/hr vertical tray flame test per ICEA T-29-520 and the 210,000 BTU/hr corner configuration test.
- UL listed as sunlight resistant.
- Complete pre-packaged, factory-tested wiring system color coded.
- Loxarmor cables are quality control inspected to meet or exceed applicable UL Standards.
- Loxarmor enclosure permits installation in cable tray containing light and power cables without a barrier separator.
- Excellent noise rejection.
- Impervious, continuous sheath excludes moisture, gases and liquids.
- Excellent compression and impact resistance.
- Lower installed system cost than conduit or EMT systems.
- Also available in aluminum Loxarmor.
- Suitable for low temperature installation of -40°C.

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For Cable Tray Use

Catalog Number	Strand Size (AWG)	Number of Pairs	Number of Triads	Inner Jacket Thickness-mils	Nominal Core O.D. - Inches	Loxarmor O.D. - Inches	Outer Jacket - mils	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
264-10-5801	16(7X)	1		35	.26	.50	50	.61	.29	212	236
264-15-5801			1	35	.27	.51	50	.62	.30	241	280

ELECTRICAL SPECIFICATIONS
Per UL Subject 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.
Shield Isolation Test
Pair to Cable Shield .. exceeds 100 Megohms/1000 ft.
Insulation Resistance Constant @60°F, minimum
(natural material typical value).....2,000 Ohms-1000 ft.
Loop Resistance, nominal (2 conductor).....ohms-1000 ft @20°C
16 AWG..... 8.2
Mutual Capacitance (PF/ft.)*
#16 44
*Typical Value

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

Aluminum Loxarmor available on special order.

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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