



Loxarmor Type P-OS

Type ITC/PLTC Armored Instrumentation Cable

Multiple Pairs 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 Communication Wire
- E Aluminum/Polyester Tape
- F Tinned Stranded Copper Drain Wire
- G Rip Cord
- H Inner Black Okoseal Jacket
- J Galvanized Steel Interlocking Loxarmor
- K 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 Standard 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.

Communications Wire: 22 AWG, solid, bare copper conductor, 12 mils nominal flame-retardant Okoseal insulation, 105°C temperature rating.

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/Polyester tape overlapped to provide 100% coverage, and a 7-strand tinned copper drain wire, same size as conductor.

Inner Jacket: Black, flame-retardant, low temperature Okoseal per UL Subject 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 727 and Article 725 of the National Electrical Code.

The Cables comply with UL 2250 and UL 13 for PLTC, CL2 and CL3.

Applications

Okonite Loxarmor Type P-OS (Pairs/triads - Overall Shield) instrumentation cables are designed for use as instrumentation, process control in ITC non-classified or labeled 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; or direct burial. Suitable in 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 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 IEEE 1202-1991 vertical tray flame test (2 pr #18 AWG and larger).
- 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.
- UL listed for direct burial (2 pr #20 AWG and larger).
- 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.
- OSHA Acceptable.
- Also available in aluminum.
- Suitable for low temperature installation of -40°C.

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Multiple Pairs or Triads - Overall Shield 300V - 105°C Rating
For Cable Tray Use

Product Data

Section 5: Sheet 11



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 - inches	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
264-10-5602	2	40	0.35	0.59	50	0.70	0.38	253	292		
264-10-5604	4	40	0.39	0.63	50	0.74	0.43	291	330		
264-10-5606	6	50	0.45	0.67	50	0.78	0.48	351	390		
264-10-5608	8	50	0.49	0.69	50	0.80	0.50	389	428		
264-10-5610	10	50	0.56	0.78	50	0.89	0.62	451	515		
264-10-5612	12	50	0.58	0.80	50	0.91	0.65	480	504		
264-10-5616	16	60	0.66	0.88	50	0.99	0.77	575	639		
264-10-5620	20	60	0.72	0.94	50	1.05	0.86	654	734		
264-10-5624	24	60	0.77	0.99	50	1.10	0.95	715	795		
264-10-5636	36	60	0.87	1.09	50	1.20	1.13	893	973		
264-10-5650	50	70	1.02	1.24	50	1.35	1.43	1147	1253		
264-15-5604	4	50	0.43	0.67	50	0.78	0.48	342	381		
264-15-5608	8	50	0.51	0.73	50	0.84	0.55	445	509		
264-15-5612	12	50	0.61	0.83	50	0.94	0.69	560	624		
264-15-5616	16	60	0.69	0.91	50	1.02	0.82	679	743		
264-15-5624	24	60	0.81	1.03	50	1.14	1.02	864	944		
264-15-5636	36	70	0.93	1.15	50	1.26	1.25	1133	1213		
264-10-5702	2	50	0.41	0.65	50	0.76	0.45	303	342		
264-10-5704	4	50	0.46	0.68	50	0.79	0.49	351	390		
264-10-5706	6	50	0.50	0.72	50	0.83	0.54	407	446		
264-10-5708	8	50	0.55	0.77	50	0.88	0.61	457	521		
264-10-5710	10	60	0.65	0.87	50	0.98	0.75	557	621		
264-10-5712	12	60	0.68	0.90	50	1.01	0.80	596	660		
264-10-5716	16	60	0.73	0.95	50	1.06	0.88	692	772		
264-10-5720	20	60	0.81	1.03	50	1.14	1.02	795	875		
264-10-5724	24	60	0.86	1.08	50	1.19	1.11	877	957		
264-10-5736	36	70	1.00	1.22	50	1.33	1.39	1145	1251		
264-10-5750	50	70	1.15	1.37	50	1.48	1.72	1451	1557		
264-15-5704	4	50	0.49	0.70	50	0.81	0.51	394	433		
264-15-5708	8	50	0.57	0.79	50	0.90	0.64	533	597		
264-15-5712	12	60	0.71	0.93	50	1.04	0.85	708	772		
264-15-5716	16	60	0.78	1.00	50	1.11	0.97	837	917		
264-15-5724	24	70	0.92	1.14	50	1.25	1.23	1112	1192		
264-15-5736	36	70	1.04	1.26	50	1.37	1.47	1449	1555		
264-10-5802	2	50	0.46	0.68	50	0.79	0.49	344	383		
264-10-5804	4	50	0.51	0.73	50	0.84	0.55	411	450		
264-10-5806	6	50	0.56	0.78	50	0.89	0.62	486	550		
264-10-5808	8	50	0.62	0.84	50	0.95	0.71	554	618		
264-10-5810	10	60	0.73	0.95	50	1.06	0.88	678	758		
264-10-5812	12	60	0.76	0.98	50	1.09	0.93	734	814		
264-10-5816	16	60	0.82	1.04	50	1.15	1.04	865	945		
264-10-5820	20	70	0.93	1.15	50	1.26	1.25	1030	1110		
264-10-5824	24	70	1.00	1.22	50	1.33	1.39	1146	1252		
264-10-5836	36	70	1.11	1.33	50	1.44	1.63	1487	1593		
264-10-5850	50	80	1.32	1.54	60	1.67	2.19	1982	2125		
264-15-5804	4	50	0.53	0.75	50	0.86	0.58	471	535		
264-15-5808	8	60	0.66	0.88	50	1.06	0.88	749	829		
264-15-5812	12	60	0.79	1.01	50	1.12	0.98	892	972		
264-15-5816	16	70	0.89	1.11	50	1.22	1.17	1095	1201		
264-15-5824	24	70	1.04	1.26	50	1.37	1.47	1446	1562		
264-15-5836	36	70	1.18	1.40	50	1.51	1.79	1925	2068		

ELECTRICAL SPECIFICATIONS	
Per UL Subject 13 & 2250	
Conductor Resistance, nominal	.....ohms/1000 ft. @20°C
20 AWG	..... 10.4
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.
Shield Isolation Test	
Pair to Cable Shield	..... exceeds 100M ohms/1000 ft.
Insulation Resistance Constant @60°F, minimum	
(natural material typical value).....2,000 Megohms-1000 ft.	
Loop Resistance, nominal (2 conductor).....ohms-1000 ft @20°C	
20 AWG	..... 20.8
18 AWG	..... 13.0
16 AWG	..... 8.2
Mutual Capacitance (PF/ft.)*	
#20	..... 37
#18	..... 41
#16	..... 44
*Typical Value	

† Cross-sectional area for calculation of cable tray fill in accordance with NEC Section 318-8

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%.