



Okoseal-N® Type SP-OS

UL Type TC and cUL Type CIC Instrumentation Cable

Multiple Shielded Pairs or Triads - Overall Shield

600 Volts - 90°C Rating Wet or Dry

600/1000V Marine Shipboard Cable



- A** Stranded Bare Copper Conductor
- B** Okoseal Insulation with Nylon Jacket
- C** Tinned Stranded Copper Group Drain Wire
- D** Double Faced Aluminum/Synthetic Polymer Backed Tape
- E** Twisted, Shielded Pairs/Triads
- F** Double Faced Aluminum/Synthetic Polymer Backed Tape
- G** Stranded Tinned Copper Drain Wire
- H** Rip Cord
- J** Black Okoseal Jacket

Specifications

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

Insulation: Flame-retardant Okoseal® (PVC), 15 mils nominal thickness, nylon jacket, 4 mil nominal thickness, 90°C temperature rating, per UL 1277.

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

Group Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a 7-strand tinned copper drain wire, two sizes smaller than the conductor. All group shields are completely isolated from each other.

Assembly: Pairs or triads assembled with left-hand lay.

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

Jacket: Black, flame-retardant, low temperature Okoseal per UL 1277, 90°C temperature rating. A rip cord is laid longitudinally under the jacket to facilitate removal.

Classification: UL Listed as Type TC Article 336 of the National Electrical Code.

Applications

Okonite's Type SP-OS (Shielded pairs or triads - Overall Shield) instrumentation cables are designed for use on Class 1 Remote-Control Signaling circuits or where a 600V cable is desired, as instrumentation, process control, or computer cable transmitting signals at levels above 100 mili-volts in circuits where maximum noise protection is required. Protection from interference among groups as well as external sources is provided by individual group shields as well as an overall cable shield. For use indoors or outdoors; wet or dry locations; in raceways; supported by a messenger wire; for direct burial; in Class I, Division 2, Class II, Division 2 or Class III, Division 1 hazardous locations. Also for use as non power limited fire alarm circuit cable (NPLF) per NEC Article 760. As an option, type TC cables can be labeled Okomarine to be used in ABS and Coast Guard approved marine applications, on special order.

Product Features

- UL listed for cable tray use (all sizes).

- Passes the UL 1277 and IEEE 383-1974 vertical tray flame tests.
- Passes IEEE 1202/FT4 vertical tray flame test.
- May be combined with 600 volt power and control cables in the same tray.
- Sunlight resistant and oil resistant.
- UL listed for direct burial (8/pr #16 AWG and larger)
- Individual pairs or triads are numbered and color-coded for simplified hook-up.
- Individual pairs or triads are completely isolated.
- 100% shield coverage for reduced electromagnetic noise pick-up.
- Excellent weathering characteristics.
- Flexible, easy to handle and terminate.
- Suitable for installation at low temperatures to -40°C.
- CSA C22.2 No. 239 Type CIC.
- UL 1309 Oko-Marine.
- UL certified to IEEE 1580-Marine Shipboard Cable rated 600/1000V.

Okoseal-N Type SP-OS



Product Data Section 5: Sheet 31

UL Type TC and cUL Type CIC Instrumentation Cable

Single Pairs or Triads - Individual and Overall Shield

600V - 90°C Rating Wet or Dry

600/1000V Marine Shipboard Cable

Okoseal Insulation - 15 mils; Nylon Jacket - 4 mils

Catalog Number	Size AWG Strands	Number of Pairs	Number of Triads	Jacket Thickness- (mils)	Nominal Cable O.D. - (In.)	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
261-60-3302	18 (7x)	2	45	0.42	0.14	83	96	
261-60-3304		4	45	0.50	0.20	138	161	
261-60-3308		8	60	0.67	0.35	254	297	
261-60-3310	18 (7x)	10	60	0.77	0.46	316	355	
261-60-3312		12	80	0.81	0.51	395	459	
261-60-3316		16	80	0.93	0.67	496	559	
261-60-3320	18 (7x)	20	80	1.07	0.90	597	677	
261-60-3324		24	80	1.09	0.93	699	779	
261-60-3336		36	80	1.28	1.29	974	1080	
261-60-3350	18 (7x)	50	80	1.55	1.89	1307	1450	
261-65-3304		4	60	0.61	0.29	196	220	
261-65-3308			8	60	0.75	0.44	317	356
261-65-3312	12		80	0.95	0.71	516	580	
261-65-3316	16 (7x)	16	80	1.09	0.93	652	732	
261-65-3324		24	80	1.34	1.41	940	1046	
261-65-3336		36	80	1.53	1.84	1319	1462	
▲ 261-60-4402	16 (7x)	2	45	0.44	0.15	114	137	
▲ 261-60-4404		4	60	0.58	0.26	198	222	
▲ 261-60-4408		8	60	0.72	0.47	337	376	
261-60-4410	16 (7x)	10	60	0.81	0.52	452	516	
▲ 261-60-4412		12	80	0.91	0.65	515	579	
▲ 261-60-4416		16	80	1.04	0.85	639	692	
261-60-4420	16 (7x)	20	80	1.11	0.97	787	867	
▲ 261-60-4424		24	80	1.18	1.09	925	1031	
261-60-4436		36	80	1.40	1.54	1304	1410	
261-60-4450	16 (7x)	50	110	1.79	2.52	1866	2053	
261-65-4404		4	60	0.61	0.29	252	291	
▲ 261-65-4408			8	80	0.79	0.49	478	542
▲ 261-65-4412	12		80	1.00	0.79	674	754	
261-65-4416	16 (7x)	16	80	1.12	0.99	858	964	
261-65-4424		24	80	1.50	1.77	1245	1388	
261-65-4436		36	80	1.71	2.30	1761	1948	
261-60-5502	14 (7x)	2	45	0.51	0.21	147	163	
261-60-5504		4	60	0.68	0.36	272	311	
261-60-5508		8	80	0.91	0.65	511	575	
261-60-5510	14 (7x)	10	80	1.06	0.88	627	707	
261-60-5512		12	80	1.09	0.93	721	801	
261-60-5516 •		16	80	1.20	1.13	919	1025	
261-60-5520 •	14 (7x)	20	80	1.34	1.41	1120	1226	
261-60-5524 •		24	80	1.48	1.72	1322	1428	
261-60-5536 •		36	80	1.67	2.19	1886	2029	
261-60-5550 •	14 (7x)	50	110	2.02	3.20	2681	2973	
261-65-5504		4	60	0.75	0.44	351	390	
261-65-5512			12	80	1.23	1.19	954	1060
261-65-5516 •	14 (7x)	16	80	1.36	1.45	1225	1331	
261-65-5524 •		24	80	1.69	2.24	1794	1987	
261-65-5536 •		36	110	2.00	3.14	2683	2975	

ELECTRICAL SPECIFICATIONS Per UL Standard 1277			
Conductor Resistance, maximumohms/1000 ft.			
.....	@20°C	@25°C	
18 AWG	6.09	7.04	
16 AWG	4.34	4.43	
14 AWG	2.72	2.78	
Insulation Test Voltage (spark test)			
18 - 16 AWG	6000 VOLTS AC		
14 AWG	7500 VOLTS AC		
Dielectric Test Voltage2000 Volts ac for 1 minute			
Insulation Resistance Constant @ 60F, minimum (natural material typical value) 2000 ohms/1000 ft.			
Loop Resistance, maximum (2 conductor)ohms-1000 ft			
.....	@20°C	@25°C	
18 AWG.....	12.18	14.08	
16 AWG	8.68	8.86	
14 AWG	5.44	5.56	

• Contains 41-strand tinned copper overall drain wire, same size as conductor.

† 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%.

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

