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

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		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		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		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	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		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		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		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	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		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 •		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 •		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 •			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, maximum .....ohms/1000 ft.

	@20°C	@25°C
18 AWG	6.51	6.64
16 AWG	4.10	4.18
14 AWG	2.57	2.62

Insulation Test Voltage (spark test)
18 - 16 AWG ..... 6000 VOLTS AC
14 AWG ..... 7500 VOLTS AC
Dielectric Test Voltage .....2000 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	13.02	13.28
16 AWG	8.20	8.36
14 AWG	5.14	5.24

• 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.

THE OKONITE COMPANY
Ramsey, New Jersey 07446