



## Okoseal-N<sup>®</sup> Type P-OS

### UL Type TC and cUL Type CIC Instrumentation Cable

Multiple Pairs or Triad - 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** Twisted Pair/Triad
- D** Stranded Tinned Copper Drain Wire
- E** Aluminum/Synthetic Polymer 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<sup>®</sup> (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; red conductor numerically printed for group identification.

**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 multiple pair or triad type P-OS 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 millivolts in circuits where shedding against external interference is required, but shielding against interference among groups is not required. 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. Type TC cables can be labeled Okomarine to be used in ABS and Coast Guard approved marine applications.

### 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 600V power and control cables in the same tray.
- Sunlight resistant & oil resistant.
- UL listed for direct burial (8/pr #16 AWG or larger).
- Individual pair or triads are numbered and color-coded for simplified hook-up.
- 100% shielded coverage for reduced electrostatic noise pick-up.
- Excellent weathering characteristics.
- Flexible, easy to handle and terminate.
- Suitable for low temperature installation 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 P-OS



# Product Data Section 5: Sheet 30

## UL Type TC and cUL TYPE CIC Instrumentation Cable

Single Pairs or Triads - 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')
264-60-3304	18 (7x)	4	45	0.48	0.18	118	141	
264-60-3308		8	50	0.63	0.31	214	238	
264-60-3310	18 (7x)	10	60	0.72	0.41	261	300	
264-60-3312		12	60	0.71	0.44	296	335	
264-60-3316		16	60	0.81	0.51	373	412	
264-60-3320		20	80	0.94	0.69	490	554	
264-60-3324	18 (7x)	24	80	0.96	0.79	565	629	
264-60-3336		36	80	1.12	0.98	786	866	
264-60-3350		50	80	1.31	1.35	1053	1159	
264-65-3304		18 (7x)	4	60	0.60	0.28	177	201
264-65-3312	12		80	0.97	0.74	461	525	
264-65-3316	18 (7x)	16	80	1.08	0.92	580	660	
264-65-3324		24	80	1.32	1.37	830	936	
264-65-3336		36	80	1.51	1.79	1156	1299	
264-60-4404		16 (7x)	4	60	0.57	0.25	169	193
264-60-4408	8		60	0.69	0.37	276	315	
264-60-4410	16 (7x)	10	60	0.80	0.50	337	376	
264-60-4412		12	60	0.82	0.53	386	425	
264-60-4416		16	80	0.95	0.71	527	591	
264-60-4420		20	80	1.05	0.87	636	700	
264-60-4424	16 (7x)	24	80	1.10	0.95	737	817	
264-60-4436		36	80	1.25	1.23	1037	1143	
264-60-4450		50	80	1.46	1.67	1398	1504	
264-65-4404		16 (7x)	4	60	0.66	0.34	226	265
264-65-4412	12		80	1.08	0.92	596	676	
264-65-4416	16 (7x)	16	80	1.20	1.13	754	834	
264-65-4424		24	80	1.48	1.72	1088	1231	
264-65-4436		36	80	1.69	2.24	1528	1671	
264-60-5504		14 (7x)	4	60	0.64	0.32	229	268
264-60-5508	8		60	0.77	0.47	385	424	
264-60-5510	14 (7x)	10	80	0.94	0.69	511	575	
264-60-5512		12	80	0.97	0.74	584	648	
264-60-5516 •		16	80	1.06	0.88	741	821	
264-60-5520 •		14 (7x)	20	80	1.18	1.09	900	980
264-60-5524 •	24		80	1.24	1.21	1050	1156	
264-60-5536 •	36		80	1.41	1.56	1496	1602	
264-60-5550 •	50		80	1.65	2.14	2027	2170	
264-65-5504	14 (7x)	4	60	0.74	0.43	311	350	
264-65-5512		12	80	1.21	1.15	837	943	
264-65-5516 •	14 (7x)	16	80	1.35	1.43	1069	1175	
264-65-5524 •		24	80	1.67	2.19	1557	1700	
264-65-5536 •		36	110	1.98	3.08	2331	2623	

ELECTRICAL SPECIFICATIONS Per UL Standard 1277	
Conductor Resistance, maximum ohms/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 Voltage.....2000 Volts ac for 1 minute	
Shield Isolation Test	
Pair to Cable Shield	... exceeds 100 Megohms/1000 ft.
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	5.14 .....5.56

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

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

Length Tolerance: Cutlengths of 1000 feet or longer are subject to a tolerance of ± 10%; less than 1000 feet ± 15%.