



Okoseal-N[®] Type P-OS

Type TC Instrumentation Cable

Single Pair or Triad - Overall Shield
600 Volts - 90°C Rating Wet or Dry



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

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

Assembly: Pair or triad 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 Standard 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 single 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 milli-volts in circuits where shielding against external interference is required, but shielding against interference among groups is not required. For use indoors or outdoors; wet or dry locations; in cable trays; in raceways; supported by a messenger wire; in Class I, Division 2, Class II, Division 2 or Class III, Division 2 hazardous locations. Also for use as non power limited fire protective signaling cable (NPLF) per NEC Code 760. Type TC cables can be labeled Okomarine to be used in ABS and Coast Guard approved marine applications.

Type TC is authorized for use in Class I & II, Division 2 hazardous locations.

Product Features

- Passes the UL 1277 & IEEE 383-1974 vertical tray flame tests.
- May be combined with 600V power and control cables in the same tray.
- Sunlight resistant & oil resistant
- Individual pairs or triads are color coded for simplified hook-up.
- Good noise rejection.
- Excellent weathering characteristics.
- May be used in approved marine applications.
- Flexible, easy to handle and terminate.
- Twisted with 100% shield coverage to reduce electromagnetic pick-up.
- OSHA Acceptable.
- Suitable for installation in low temperature installations to -40°C.

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Product Data Section 5: Sheet 29

Okoseal Insulation: 15 mils
Nylon Jacket: 4 mils

Catalog Number	Size AWG	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')
▲ 264-60-3301	18	1	45	0.27	0.06	48	53	
264-65-3301	18	1		0.29	0.07	54	59	
▲ 264-60-4401	16	1		0.29	0.07	56	61	
▲ 264-65-4401	16	1		0.31	0.08	69	80	
▲ 264-60-5501	14	1		0.32	0.09	75	86	
264-65-5501	14	1		0.34	0.10	94	105	

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

18-16 AWG 1500 volts ac for 1 minute
14 AWG 2000 volts ac for 1 minute

Shield Isolation Test

Pair to Cable Shield ... exceeds 100 Megohms/1000 ft.

Insulation Resistance Constant @ 60°F minimum
(natural material typical value) 2000 Ohms-1000 ft.

Loop Resistance, nominal (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

† **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.

Mutual Capacitance	18 AWG 49 pF/ft
	16 AWG 56 pF/ft
	14 AWG 64 pF/ft
L/R ratio	18 AWG 14 micro Henry/ohm
	16 AWG 21 micro Henry/ohm
	14 AWG 31 micro Henry/ohm
Inductance	18 AWG 0.19 micro Henry/ft
	16 AWG 0.18 micro Henry/ft
	14 AWG 0.17 micro Henry/ft

