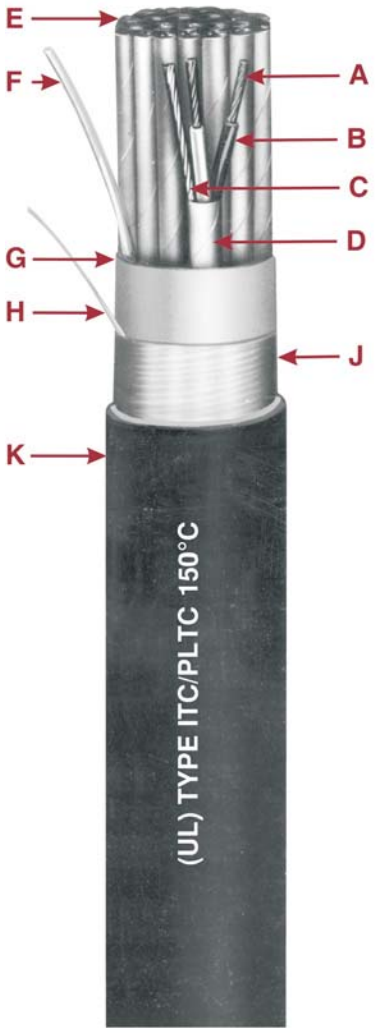
Okozel®-Okozel Type SP-OS

Type ITC/PLTC Instrumentation Cable

Multiple Shielded Pairs or Triads - Overall Shield
300 Volts - 150°C Rating
For Cable Tray Use



A Bare Stranded Copper Conductor
B Okozel Insulation
C Coated, Stranded Copper Group Drain Wire
D Aluminum-Polyester Isolated Group Shield
E Twisted, Shielded Pairs/Triads
F Communication Wire
G Polyester Tape
H Coated, Stranded Copper Drain Wire
J Aluminum-Nomex-Polyester Cable Shield
K Okozel Jacket

Specifications

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

Insulation: Flame-retardant, radiation-resistant Okozel, a modified ETFE fluoropolymer. Cable meets or exceeds requirements for UL Standards 13 and 2250.

Conductor Identification: Pigmented black and white in pairs, black, white and red in triads; white conductor numerically printed for group identification.

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

Communications Wire: 22 AWG, solid, bare copper conductor, 7 mils nominal Okozel insulation.

Assembly: Pairs or triads assembled with a 1 ½" - 2 ½" left-hand lay. Flame-retardant, non-wicking fillers included where required to provide a round cable, polyester tape overall.

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

Jacket: Flame-retardant, radiation, oil, fuel, and chemical-resistant Okozel. Cable meets or exceeds the requirements of UL 13 and UL 2250, NEMA HP-100 and is rated "non-burning" under ASTM D635.

Classification: UL Listed as ITC/PLTC - Instrument Tray Cable/Power Limited Tray Cable for use in accordance with Article 335 and 722 of the 2023 National Electrical Code.

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

Applications

Okonite Okozel Type SP-OS (Pair/triad - Individual and Overall Shield) instrumentation cables are recommended for use in fossil fueled generating stations where continuity of critical control circuits is of primary importance. Designed for use as instrumentation, process control, and computer cables in ITC non-classified or labeled circuits up to 150 volts and 5 amps (750VA) and in Class 2 or 3 Power-Limited circuits where maximum shielding against external interference is required, as well as shielding among groups, particularly where the cable may be subject to abnormallyt high current or voltage interference; indoors or outdoors; rated 150°C in dry locations and 75°C in wet locations; in cable trays; in raceways; supported by a messenger wire; under raised floors; for direct burial. Suitable 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 (FP) per NEC Article 760.

Okozel instrumentation cables are also recommended for high ambient temperature areas up to 150°C (302°F) in industrial applications or for cold weather installations in excess of -65°C (-85°F).

Product Features

- Individual pairs or triads are numbered and color coded for simplified hook-up.
- Individual pairs or triads are completely isolated.
- Maximum noise rejection.
- Communication wire included in each cable for voice communication during installation or instrument calibration.
- 100% shield coverage for reduced electrostatic noise.
- Twisted to reduce electromagnetic pick-up.
- Low surface friction provides easier installation.
- Smaller and lighter diameter permits more cables per tray.
- 150°C continuous operating temperature.
- Cold installation temperature in excess of -65°C.
- Exceptional abrasion resistance will not cut or tear.
- Flame-retardant and non-propagating. Passes IEEE 383 and UL Vertical Tray Flame Tests.
- Low smoke emission.
- Chemically inert - unaffected by typical acids, bases, solvents and cleaning agents, fuels and hydraulic fluids.
- High dielectric strength.
- Low dielectric constant.
- Special designs available that are qualified for nuclear generating stations at 90°C in accordance with IEEE Standards 383-74 and 323-74.

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Okozel Insulation: 9 mils

Catalog Number	Conductor Size-AWG (Strands)	Number of Pairs	Number of Triads	Jacket Thickness - (mils)	Nominal Cable O.D. - (in.)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
261-40-2202	20(7X)	2		15	0.32	51	62
261-40-2204		4		15	0.37	81	92
261-40-2206		6		15	0.45	114	137
261-40-2208		8		20	0.50	150	173
261-40-2212		12		20	0.61	213	237
261-40-2224		24		25	0.85	408	472
261-45-2202			2	15	0.35	63	74
261-45-2204			4	15	0.42	105	128
261-45-2206			6	20	0.51	156	179
261-45-2208			8	20	0.56	197	221
261-45-2212			12	20	0.69	284	323

ELECTRICAL SPECIFICATIONS
Per UL Standard 13

Conductor Resistance, maximum .....ohms/1000 ft. @20°C @25°C
20 AWG ..... 10.3. . . 10.5

Insulation Test Voltage (spark test)..... 5000 volts ac
Dielectric Test Voltage ..... 1500 volts ac for 15 sec.
Insulation Resistance Constant @60°F minimum
(natural material typical value).....50,000 Megohms-1000 ft.
Loop Resistance, maximum (2 cdr.).....ohms-1000 ft @20°C @25°C
20 AWG ..... 20.6. . . 21.0

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

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