



Type P-OS

Type ITC/PLTC Instrumentation Cable

Multiple Pair or Triads - Overall Shield

300 Volts - 105°C Rating

For Cable Tray Use



- A Bare Stranded Copper Conductor
- B Okoseal Insulation
- C Twisted Pairs/Triads
- D Communication Wire
- E Aluminum/Polyester Tape
- F Tinned Stranded Copper Drain Wire
- G Rip Cord
- H Black Okoseal Jacket

Specifications

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

Insulation: Flame-retardant Okoseal® (PVC) per UL 13 and 2250, 15 mils nominal thickness, 105°C temperature rating.

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

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

Communications Wire: 22 AWG, solid, bare copper conductor, 12 mils nominal flame-retardant Okoseal insulation, 105°C rating.

Assembly: Pairs or triads assembled with left-hand lay. Flame-retardant, non-wicking fillers included where required to provide a round cable.

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 13 and 2250. A rip cord is laid longitudinally under the jacket to facilitate removal.

Classifications: UL Listed as ITC/PLTC - Instrument Tray Cable/Power Limited Tray Cable for use in accordance with Article 727 and Article 725 of the National Electrical Code.

Cables comply with UL 2250 and UL 13 for PLTC, CL2 and CL3.

Applications

Okonite® Type P-OS (Pairs/triads - Overall Shield) instrumentation cables are designed for use as instrumentation, process control 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 shielding against external interference is required, but shielding against interference among groups is not required; indoors or outdoors' in wet or dry locations with conductor operating temperatures up to 105°C; in cable trays; in raceways; supported by a messenger wire; under raised floors. 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 (FPL) per NEC Code 760.

The overall shield eliminates most of the static interference from the electric field radiated by power cables and other electrical equipment.

For dc service in wet locations X-Olene® insulation is recommended.

Product Features

- Passes the UL 1581 and IEEE 383-1974 vertical tray flame tests.
- Passes IEEE 1202 vertical tray flame test (8 Pr #18 and 4 Pr #16 & larger).
- Sunlight & oil resistant.
- Individual pairs or triads are numbered and color coded for simplified hook-up.
- Good external noise rejection
- Excellent weathering characteristics.
- OSHA Acceptable.
- Flexible, easy to handle, splice and terminate.
- 100% shield coverage for reduced electromagnetic noise pick-up.
- Communication wire included in each cable for voice communication during installation or instrument calibration.
- Suitable for low temperature installation of -40°C.

Type P-OS Type ITC/PLTC Instrumentation Cable

Multiple Pairs or Triads - Overall Shield 300V - 105°C Rating
For Cable Tray Use



Product Data Section 5: Sheet 9

Catalog Number	Strand Size (AWG)	Insulation Thickness (mils)	Number of Pairs	Number of Triads	Jacket Thickness-mils	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
264-10-2202	20(7X)	15	2	40	0.35	0.10	56	67	
264-10-2204			4	40	0.37	0.12	79	102	
264-10-2206			6	50	0.45	0.16	114	137	
264-10-2208			8	50	0.47	0.19	137	160	
264-10-2210			10	50	0.56	0.25	167	191	
264-10-2212			12	50	0.56	0.26	189	213	
264-10-2216			16	60	0.66	0.34	250	289	
264-10-2220			20	60	0.72	0.41	300	339	
264-10-2224			24	60	0.73	0.47	346	385	
264-10-2236			36	60	0.87	0.59	482	546	
264-10-2250			50	70	1.02	0.82	665	729	
264-15-2204			4	50	0.43	0.14	110	133	
264-15-2208			8	50	0.51	0.20	181	204	
264-15-2212			12	50	0.61	0.29	254	278	
264-15-2216			16	60	0.69	0.37	336	375	
264-15-2224			24	60	0.81	0.51	473	512	
264-15-2236			36	70	0.93	0.68	689	753	
264-10-3302			18(7X)	15	2	50	0.41	0.13	79	102
264-10-3304	4	50			0.44	0.17	113	136	
264-10-3306	6	50			0.50	0.20	148	171	
264-10-3308	8	50			0.52	0.24	182	206	
264-10-3310	10	60			0.65	0.33	235	274	
264-10-3312	12	60			0.65	0.36	267	306	
264-10-3316	16	60			0.73	0.42	334	373	
264-10-3320	20	60			0.81	0.51	404	443	
264-10-3324	24	60			0.82	0.58	469	533	
264-10-3336	36	70			0.95	0.79	680	744	
264-10-3350	50	70			1.11	1.03	913	993	
264-15-3304	4	50			0.49	0.19	145	175	
264-15-3308	8	50			0.57	0.25	244	310	
264-15-3312	12	60			0.71	0.39	361	435	
264-15-3316	16	60			0.78	0.48	459	498	
264-15-3324	24	70			0.92	0.66	671	735	
264-15-3336	36	70			1.04	0.85	956	1020	
264-10-4402	16(7X)	15			2	50	0.46	0.17	102	125
264-10-4404			4	50	0.49	0.21	150	173	
264-10-4406			6	50	0.56	0.25	201	225	
264-10-4408			8	50	0.59	0.30	250	274	
264-10-4410			10	60	0.73	0.42	321	360	
264-10-4412			12	60	0.73	0.46	369	408	
264-10-4416			16	60	0.82	0.53	467	506	
264-10-4420			20	70	0.93	0.68	585	649	
264-10-4424			24	70	0.95	0.79	681	745	
264-10-4436			36	70	1.11	0.97	966	1046	
264-10-4450			50	80	1.32	1.37	1333	1439	
264-15-4404			4	50	0.53	0.22	198	222	
264-15-4408			8	60	0.66	0.34	356	395	
264-15-4412			12	60	0.79	0.49	506	545	
264-15-4416			16	70	0.89	0.62	666	730	
264-15-4424			24	70	1.04	0.85	954	1018	
264-15-4436			36	70	1.18	1.09	1372	1452	

ELECTRICAL SPECIFICATIONS Per UL Standard 13 & 2250	
Conductor Resistance, nominal	.....ohms/1000 ft. @20°C
20 AWG	..... 10.4
18 AWG	..... 6.5
16 AWG	..... 4.1
Insulation Test Voltage (spark test)	.....5000 Volts ac
Dielectric Test Voltage	.....1500 Volts ac for 15 sec.
Shield Isolation Test	
Pair to Cable Shield	..... exceeds 100M ohms/1000 ft.
Insulation Resistance Constant @60°F, minimum (natural material typical value).....10,000 Megohms-1000 ft.	
Loop Resistance, nominal (2 conductor) ohms-1000 ft @20°C	
20 AWG	..... 20.8
18 AWG	..... 13.0
16 AWG	..... 8.2
Mutual Capacitance (PF/ft.)*	
20 AWG	..... 37
18 AWG	..... 41
16 AWG	..... 44
*Typical Value	

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

† Cross-sectional area for calculation of cable tray fill in accordance with NEC Section 318-8

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



THE OKONITE COMPANY

Ramsey, New Jersey 07446