



## Type P-NS

### Type ITC/PLTC Thermocouple Extension Cable

Single Pair - No Shield - 105°C Rating  
For Cable Tray Use



- A Solid Thermocouple Alloy Conductor
- B Okoseal Insulation
- C Twisted Pair
- D Rip Cord
- E Okoseal Jacket

#### Specifications

**Conductors:** Solid alloys per ANSI MC 96.1

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

**Conductor Identification:** Pigmented insulation on individual conductors.

**Assembly:** Pair assembled with left-hand lay.

**Jacket:** Color-coded, flame-retardant, low temperature Okoseal per UL Standard 13 and 2250. A rip cord is laid longitudinally under the jacket to facilitate removal.

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

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

#### Applications

Okonite Type P-NS (Pair/triad - No Shield) thermocouple extension cables are designed for use as instrumentation and process control cables on 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 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; for direct burial. Suitable Class I, Division 2, Class II, Division 2, or Class III, Division 2 hazardous locations.

#### Product Features

- Passes the UL 1581 & IEEE 383-1974 vertical tray flame tests.
- Sunlight resistant and oil resistant.
- UL listed for direct burial.
- Individual pair is color coded for simplified hook-up.
- Excellent weathering characteristics.
- OSHA Acceptable.
- Flexible, easy to handle and terminate.
- Twisted to reduce electromagnetic pick-up.
- Suitable for low temperature installation of -40°C.

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## Product Data Section 5: Sheet 17



**Conductors: 16 AWG**  
**Okoseal Insulation: 15 mils**

ASA/ISA Type	Catalog Number	Number of Pairs	Jacket Thickness (mils)	Nominal Cable O.D. - (In.)	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
EX	284-05-1401	1	35	.24	.04	35	40
JX	284-05-2401	1	35	.24	.04	35	40
KX	284-05-3401	1	35	.24	.04	35	40
TX	284-05-4401	1	35	.24	.04	35	40

ASA/ISA COLOR CODE AND LIMITS OF ERROR									
ASA/ISA Type	Positive Wire		Negative Wire		Outer Jacket Color	Temperature Range °C	Limits of Error		Nom. Loop Resistance Per 100' @ 20°C
	Alloy	Color	Alloy	Color			Standard	Special (1)	
EX	Chromel	Purple	Constantan	Red	Purple	0 to 200°C	± 1.7°C		27.8 ohms
JX	Iron	White	Constantan	Red	Black	0 to 200°C	± 2.2°C	± 1.1°C	13.9 ohms
KX	Chromel	Yellow	Alumel	Red	Yellow	0 to 200°C	± 2.2°C		23.6 ohms
TX	Copper	Blue	Constantan	Red	Blue	-60 to 100°C	± 1.0°C	± 0.5°C	12.0 ohms

**SX** available upon request.

(1) Special grade alloy conductors for JX and TX are available on special order.

† **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%.

ELECTRICAL SPECIFICATIONS Per UL Standard 13 and 2250	
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).....	2000 Megohms-1000 ft.