

**Factory  
Mutual  
System**

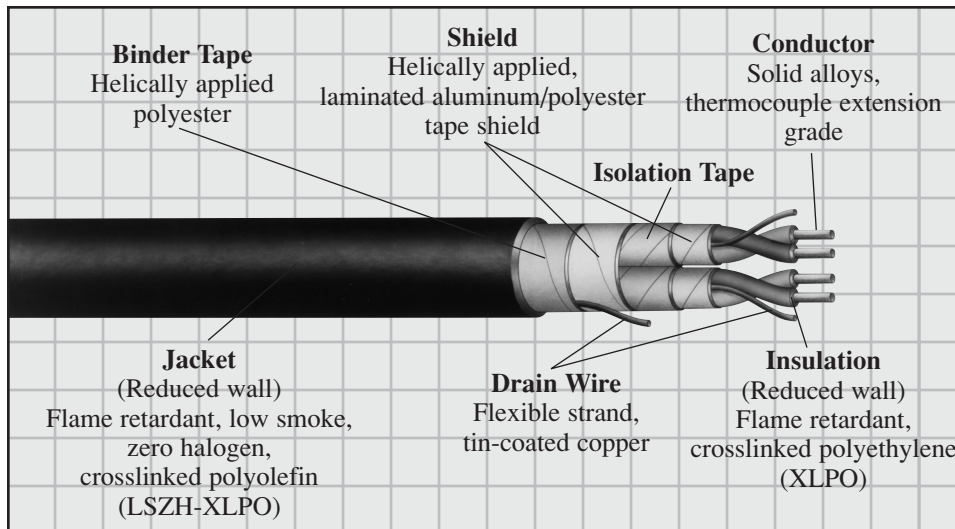
## X-Link® TC

### Thermocouple Extension Cable

Multi-Shielded Pairs  
With Overall Shield  
(XLPO/LSZH-XLPO)

90°C\*, 600 Volt  
NEC Type TC  
UL Listed

Spec. RSS-3-089



## Scope

X-Link® TC is the smallest thermoset, UL listed, 600 volt Type TC Thermocouple Extension cable available in the industry today. X-Link® TC is 30% to 40% smaller in diameter than standard 600 volt cable. It may be installed in metal trays, ducts, conduits, or in direct burial applications. It is ideal for applications in substations, cogeneration, waste/energy and industrial facilities. *Designed for use on critical circuits where complete isolation is required between pairs and from external interference.*

## Construction

### Conductor:

Solid alloys per ANSI MC 96.1 (Extension Grade, standard limits of error)

### Insulation:

20 mils of flame retardant crosslinked polyolefin meeting performance requirements of ICEA S-95-658 and UL 44 Class XL

### Pair Assembly:

Two insulated conductors twisted with a flexible strand, tin-coated copper drain wire, a helically applied aluminum/ polyester laminated tape shield and an isolation tape

### Cabling:

Required number of pairs cabled

### Circuit Identification:

Individual pair single conductors color coded to ANSI requirements by means of pigmented insulation with printed pair numbers on both singles for pair identification

### Fillers:

(Where required)

### Overall Shield System:

Helically applied aluminum/polyester laminated tape shield in continuous contact with a flexible strand, tin-coated copper drain wire

### Binder Tape:

Helically applied polyester

### Jacket:

Reduced wall, black, flame retardant, low smoke, zero halogen, crosslinked polyolefin jacket (Note: colored jackets are not available)

† 2C #16 and larger

\* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions.

## Features

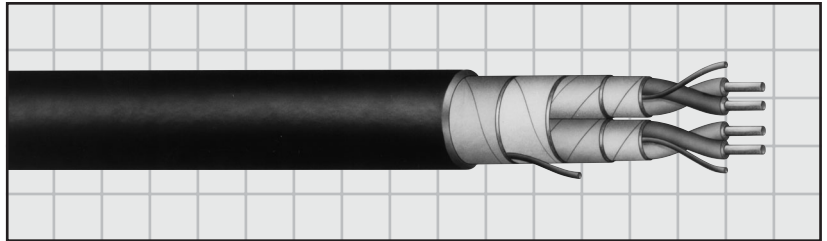
- Thermoset insulation and jacket for enhanced thermal stability
- Small diameter & light weight
- Economical
- More cables per tray or conduit
- 600 volt rating allows cables to be run in trays without separation (300 vs 600 volt)
- Flame retardant
- Flexible
- Heat, sunlight, oil and abrasion resistant
- Easily pulled (low friction jacket)
- Jackets have printed sequential footage markers for improved inventory control
- Jacket strippability facilitates termination
- Reduced halogen design
- Low smoke jacket
- Lead free jacket
- Superior insulation and jacket moisture resistance

## Performance Standards

- UL listed, Type TC (UL 1277) in accordance with the NEC
- UL listed sunlight resistance
- Factory Mutual Research Corp. group "1" fire rated per "Specification Test Standard for Cable Fire Propagation, Class 3972"†
- Passes IEEE-383 1974 70,000 BTU/hr vertical tray flame test and ICEA 70,000 BTU/hr vertical tray flame test (T-30-520)
- Single conductors pass UL VW-1 flame test
- Single conductors in accordance with performance requirements of ICEA S-95-658 and UL 44., Class XL
- Jacket exceeds the requirements of UL Class XL/90°C and ICEA Publication T-33-655, Type II
- UL approved for 90°C operation in both wet and dry locations
- Cable components are in compliance with the maximum leachable lead level required by the EPA in 40CFR, Part 261

# X-Link<sup>®</sup> TC Thermocouple Extension Cable

Multi-Shielded Pairs  
With Overall Shield  
(XLPO/LSZH-XLPO)  
90°C, 600 Volt  
NEC Type TC  
UL Listed



Spec. RSS-3-089

## 16 AWG Solid

Product Code*	Number of Pairs	Conductor Type*	Insulation Thickness		Insulated Conductor Diameter (Inch)	Drain Wire Size/ Stranding	Jacket Thickness (Mils)	Nominal Overall Diameter		Approximate Net Weight (Lbs/M')
			(Inch)	(mm)				(Inch)	(mm)	
I85-3084	2	JX	.020	.51	.09	18 AWG (16/s)	35	.43	10.92	85
I85-3088	3	JX	.020	.51	.09	18 AWG (16/s)	35	.46	11.68	115
I85-3092	4	JX	.020	.51	.09	18 AWG (16/s)	45	.55	13.97	175
I85-3096	5	JX	.020	.51	.09	18 AWG (16/s)	45	.59	14.99	205
I85-3100	7	JX	.020	.51	.09	18 AWG (16/s)	45	.65	16.51	265
I85-3104	9	JX	.020	.51	.09	18 AWG (16/s)	45	.75	19.05	335
I85-3108	12	JX	.020	.51	.09	18 AWG (16/s)	65	.89	22.61	465
I85-3112	15	JX	.020	.51	.09	18 AWG (16/s)	65	.98	24.89	560
I85-3116	19	JX	.020	.51	.09	18 AWG (16/s)	65	1.03	26.16	675
I85-3120	37	JX	.020	.51	.09	18 AWG (16/s)	65	1.38	35.05	1220

## 18 AWG Solid

I86-3084	2	JX	.020	.51	.08	20 AWG (10/s)	35	.39	9.91	65
I86-3088	3	JX	.020	.51	.08	20 AWG (10/s)	35	.42	10.67	85
I86-3092	4	JX	.020	.51	.08	20 AWG (10/s)	35	.47	11.94	120
I86-3096	5	JX	.020	.51	.08	20 AWG (10/s)	45	.54	13.72	155
I86-3100	7	JX	.020	.51	.08	20 AWG (10/s)	45	.58	14.73	195
I86-3104	9	JX	.020	.51	.08	20 AWG (10/s)	45	.68	17.27	245
I86-3108	12	JX	.020	.51	.08	20 AWG (10/s)	45	.76	19.30	310
I86-3112	15	JX	.020	.51	.08	20 AWG (10/s)	65	.89	22.61	415
I86-3116	19	JX	.020	.51	.08	20 AWG (10/s)	65	.93	23.62	495
I86-3120	37	JX	.020	.51	.08	20 AWG (10/s)	65	1.24	31.50	880

\* **Product Code Sequence:** Codes for other alloy combinations can be obtained by applying the following numbering sequence:

Type	Product Code
EX	Add "1" to above "JX" code
KX	Add "2" to above "JX" code
TX	Add "3" to above "JX" code

Example: I85-3085 = 2 PAIR 16 AWG Type "EX"