



# LOW SMOKE ZERO HALOGEN (LSZH) Thermocouple Extension Cable

**Overall Shield  
UL Listed 300 Volt LSZH Jacket /XLPE Insulated 194°F  
(90°C)**

### **Applications**

- Utility & Industrial Plants
- Petrochemical Plants
- Pharmaceutical Plants
- Thermcouple Circuits
- Highly Populated Facilities

### **Product Features**

- UL Listed Subject 13 PLTC
- Rated 90°C 300 Volt
- Flame Retardant (LSZH, LSOH)
- Available as Type ITC Sunlight Resistant (Optional)

### **Product Specifications**

Conductors: Solid or stranded thermocouple extension wire per ASTM E230 & ANSI MC96.1  
12 to 22 AWG (2.44 to .63MM)

Insulation: Nominal .016" (.40MM) flame retardant XLPE

Color Code: Per ASTM E230 & ANSI MC96.1, numbered on positive conductor (other colors available)

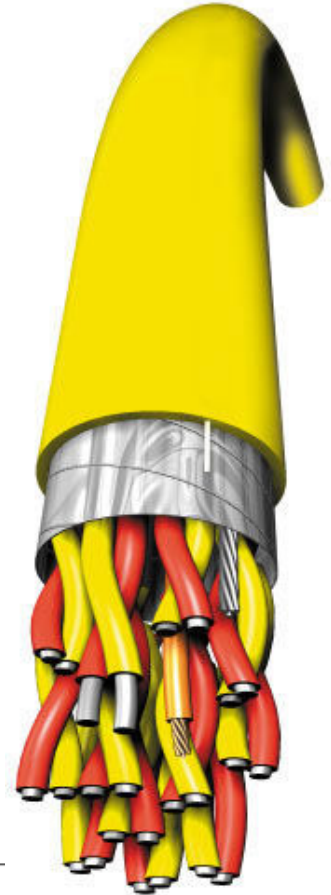
Construction: Twisted Pairs

Cable Shield: .002" (0.05MM) aluminum/polyester tape, 25% overlap

Cable Drain Wire: 20 AWG (.91MM) 7-strand tinned copper

Outer Jacket: Flame retardant LSOH with ripcord under jacket

(Optional) Communication Wire: 22 AWG (.61MM) 7 stand copper insulated with nominal .015" (.38 MM)



### **Ordering Code**

**U****X****L****3**/**A****L****V****T****W****K** - ( ) - ( ) ( ) - ( )

↑	↑	↑	↑
# of pairs	Wire Size AWG or Metric	Add (F) for Stranded Wire	Calibration Grade Designation Per Table 1

Wire Size	Number of Pairs	Insulation Thickness		Outer Diameter		Bend Radius		Pull Tension		Net Weight	
		Inches	MM	Inches	MM	Inches	MM	LB	KG	LB/MF	(KG/KM)
<b>16 AWG (1.29MM) Solid</b>	1	0.037	0.94	0.256	6.5	1.5	38	54	24	43	64
	4	0.053	1.35	0.471	12.0	2.8	71	172	78	144	215
	8	0.053	1.35	0.587	14.9	3.5	89	336	152	258	385
	12	0.064	1.63	0.708	18.0	4.2	107	500	227	357	532
	16	0.064	1.63	0.791	20.1	4.7	119	664	301	453	675
	20	0.064	1.63	0.825	21.0	5.0	127	828	376	541	807
	24	0.074	1.88	0.953	24.2	5.7	145	992	450	663	988
36	0.074	1.88	1.077	27.4	6.5	165	1484	673	934	1393	
<b>18 AWG (1.02MM) Solid</b>	1	0.037	0.94	0.234	5.9	1.4	36	34	15	34	51
	4	0.053	1.35	0.424	10.8	2.5	64	112	51	106	159
	8	0.053	1.35	0.525	13.3	3.2	81	216	98	173	257
	12	0.064	1.63	0.634	16.1	3.8	97	320	145	252	376
	16	0.064	1.63	0.706	17.9	4.2	107	424	192	316	471
	20	0.064	1.63	0.734	18.6	4.4	112	528	240	373	556
	24	0.064	1.63	0.828	21.0	5.0	127	632	287	440	657
36	0.074	1.88	0.956	24.3	5.7	145	944	428	636	948	
<b>20 AWG (0.81MM) Solid</b>	1	0.037	0.94	0.218	5.5	1.3	33	21	10	28	42
	4	0.042	1.07	0.369	9.4	2.2	56	72	33	77	114
	8	0.053	1.35	0.480	12.2	2.9	74	136	62	135	202
	12	0.053	1.35	0.557	14.1	3.3	84	200	91	182	272
	16	0.064	1.63	0.643	16.3	3.9	99	264	120	244	363
	20	0.064	1.63	0.669	17.0	4.0	102	328	149	284	424
	24	0.064	1.63	0.752	19.1	4.5	114	392	178	335	499
36	0.064	1.63	0.848	21.5	5.1	130	584	265	460	685	

The products referenced above represent the most popular constructions. Other constructions can be manufactured to meet individual specification and application requirements. Contact factory for additional information.

**Table 1.** Initial Calibration Tolerances Per ASTM E230 and ANSI MC96.1

Thermocouple Type	Temperature Range °F (°C)	Tolerance-Reference Junction 32°F (0°C)			
		Grade Designation	Standard Grade Limits °F (°C)	Grade Designation	Special Grade Limits °F (°C)
<b>Extension Wire</b>					
TX	32 (0) to 212 (100)	TX	±1.8 (1)	TTX	±0.9 (0.5)
JX	32 (0) to 400 (200)	JX	±4 (2.2)	JJX	±2 (1.1)
EX	32 (0) to 400 (200)	EX	±3.1 (1.7)	EEX	±1.8 (1)
KX or NX	32 (0) to 400 (200)	KX or NX	±4 (2.2)	KKX or NNX	±2 (1.1)
<b>Compensating Extension Wire</b>					
RX or SX	32 (0) to 400 (200)	RX or SX	±9 (5)		

**Electrical Characteristics**

Insulation passes 3000V ac spark test per UL Subject 13.

Completed cable passes a dielectric test of 2500 V dc for 10 seconds, conductor to conductor and conductor to shield, per UL Subject 13



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