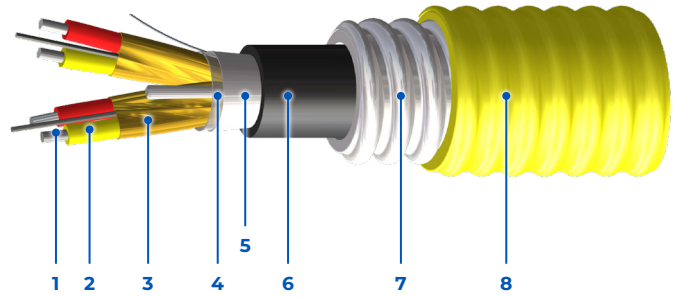


# UL Type PLTC / ITC Armored Thermocouple Extension, 300 V

Shawflex Thermocouple Extension cables offer advantages in cost and mechanical properties when used for connections between thermocouples and instruments.



- 1 – Thermocouple Alloys
- 2 – FR PVC insulated Thermocouple Alloy Wires
- 3 – Individual Aluminum/Mylar Shielded Pairs with Tin-coated Copper Drain Wire
- 4 – Polyester Separator Tape
- 5 – Overall Aluminum/Mylar Shield with Tin-coated Copper Drain Wire
- 6 – FR PVC Black Inner Protective Jacket
- 7 – Aluminum Interlocked Armor (AIA)
- 8 – FR PVC Yellow Outer Protective Jacket

## Standards:

PLTC / ITC-ER



## Product Construction

### Insulation:

- FR PVC rated: 60°C wet/ 105°C dry
- XLPE rated (optional)
- VW-1 rated (optional)

### Shielding (foil-free edge):

- ISOS (standard)
- OS (optional)

### Armor:

- Aluminum Interlocked Armor (AIA) (standard)
- Steel Interlocked Armor (SIA) (optional)
- Served Wire Armor (SWA) (optional)

### Jacket:

- FR PVC yellow (standard) dependent on requested thermocouple alloy rated: 90°C to -40°C
- Thermoset CPE (optional)
- Thermoplastic CPE (optional)
- Thermoplastic LSZH (optional)

### Available in:

- Composite constructions
- Custom insulation/ jacket colors
- PLTC/ITC-ER with CPE jackets
- Extension cables for type E, J, K, N, R, S and T thermocouple alloys

## Certification/Compliances

- UL 13, Power Limited Tray Cable (PLTC)
- UL 2250, Instrumentation Tray Cable (ITC)
- UL 83, Thermoplastic Insulated Wires and Cables
- IEEE 1202/383 (70,000 BTU/hr), Vertical Flame Test rated (optional)
- UL 1685 / FT4, Vertical Tray Flame Test rated (optional)
- ICEA T-30-520 (70,000 BTU/hr), Vertical Flame Test rated
- UV sunlight resistant "SUN RES" (all colors)
- -40°C cold bend rated
- Rated for use in hazardous locations:
  - Class I Zone 2 (Div 2)
  - Class II Zone 22 (Div 2)

## 300 V

Voltage

## UL Type PLTC / ITC

Thermocouple Extension

### Color Coding

- |               |            |         |               |
|---------------|------------|---------|---------------|
| • Type EX:    | (+) Purple | (-) Red | Purple jacket |
| • Type JX:    | (+) White  | (-) Red | Black jacket  |
| • Type KX:    | (+) Yellow | (-) Red | Yellow jacket |
| • Type NX:    | (+) Orange | (-) Red | Orange jacket |
| • Type RX/SX: | (+) Black  | (-) Red | Green jacket  |
| • Type TX:    | (+) Blue   | (-) Red | Blue jacket   |

# UL Type PLTC / ITC Armored Thermocouple Extension, 300 V

PART NUMBER	NUMBER OF PAIRS	CONDUCTOR SIZE (AWG/kcmil)	OD OVER INNER JACKET (in/mm)	NORMAL DIAMETERS		CABLE WEIGHT (lbs/1000ft) (kg/km)	MAX PULLING TENSION (PULLING EYE) (lb/kg)	MIN BEND RADIUS (PULL) (in/mm)
				OVER ARMOR (in/mm)	OVERALL CABLE (in/mm)			
7P621U160147700	1	16	0.257 / 6.5	0.497 / 12.6	0.609 / 15.5	155 / 230	41 / 19	11 / 278
7P622U160247700	2	16	0.389 / 9.9	0.629 / 16	0.741 / 18.8	238 / 354	82 / 37	13.3 / 339
7P622U160447700	4	16	0.472 / 12.0	0.712 / 18.1	0.824 / 20.9	312 / 465	165 / 75	14.8 / 377
7P622U160647700	6	16	0.561 / 14.2	0.801 / 20.3	0.913 / 23.2	395 / 587	247 / 112	16.4 / 417
7P622U160847700	8	16	0.607 / 15.4	0.847 / 21.5	0.959 / 24.4	457 / 680	330 / 150	17.3 / 438
7P622U161247700	12	16	0.756 / 19.2	0.996 / 25.3	1.108 / 28.1	617 / 919	494 / 224	19.9 / 506
7P622U162447700	24	16	1.059 / 26.9	1.299 / 33.0	1.411 / 35.8	1029 / 1531	989 / 449	25.4 / 645
7P621U180147700	1	18	0.235 / 6.0	0.475 / 12.1	0.587 / 14.9	141 / 210	26 / 12	10.6 / 268
7P622U180247700	2	18	0.353 / 9.0	0.593 / 15.1	0.705 / 17.9	210 / 312	52 / 24	12.7 / 322
7P622U180447700	4	18	0.428 / 10.9	0.668 / 17.0	0.780 / 19.8	268 / 399	104 / 47	14 / 357
7P622U180647700	6	18	0.505 / 12.8	0.745 / 18.9	0.857 / 21.8	331 / 493	156 / 71	15.4 / 392
7P622U180847700	8	18	0.546 / 13.9	0.786 / 20.0	0.898 / 22.8	378 / 562	208 / 94	16.2 / 410
7P622U181247700	12	18	0.679 / 17.2	0.919 / 23.3	1.031 / 26.2	501 / 745	312 / 142	18.5 / 471
7P622U182447700	24	18	0.946 / 24.0	1.186 / 30.1	1.298 / 33.0	813 / 1210	624 / 283	23.4 / 594