

ULTROL® 60+ Thermocouple Extension Cable

Individually Shielded Pairs, Overall Shield



Class 1E Nuclear
600 V, 90°C, VW-1



SAFETY
RELATED



RADIATION-
RESISTANT



FLAME-
RETARDANT



MOISTURE
RESISTANT



UV/SUNLIGHT-
RESISTANT



CROSS-
LINKED



OIL-
RESISTANT

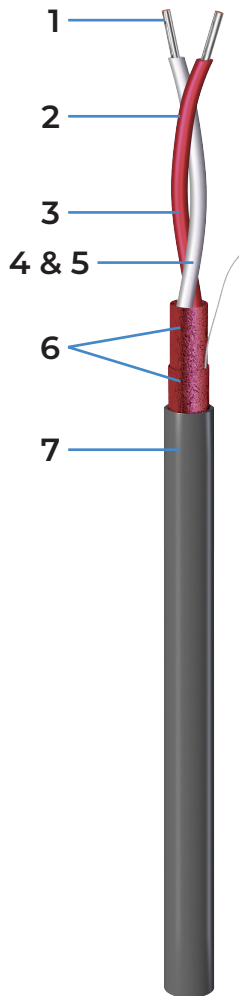


CUT-
THROUGH



COLD
BEND

Product Construction



1. Conductor:

- 18AWG and 16AWG annealed, stranded 7/W thermocouple extension grade alloys calibrated to standard limits of error per ANSI-MC96.1, latest edition

2. Insulation:

- Flame-retardant, heat-, moisture- and radiation-resistant, thermoset ULTROL® 60+ Cross-linked Polyethylene (FR-XLPE)

3. Conductor Components:

- Insulated single conductors are matched and twisted into pairs

4. Color Code:

- Negative conductor is red; positive conductor is color coded per ANSI-MC96.1as follows:

Type	Pos. Cond.	Overall Jacket
JX	White	Black
EX	Purple	Black
KX	Yellow	Black
TX	Blue	Black

5. Cable Core:

- Conductor components are cables with non-hygroscopic fillers and an overall binder tape as necessary

6. Shields:

- Individually shielded: pairs are 100% shielded, helically applied with a copper/polyester tape in contact with a stranded tinned copper drain wire and an overall polyester electrical isolation tape
- Overall shield: copper/polyester tape in contact with a stranded tinned copper drain wire

7. Jacket:

- Flame-retardant, moisture-, oil-, sunlight and radiation-resistant thermoset, ULTROL® 60+ Cross-linked Polyolefin (XLPO) — Black

Print:

- PRYSMIAN (WC) ULTROL® 60+ XX/ PR XXAWG TYPE EX OR JX OR KX OR TX FR-XLPE XLPO SHIELDED 600V 90C DAY/ MONTH/YEAR TRACEABILITY NUMBER SEQUENTIAL FOOTAGE

Applications:

- ULTROL® 60+ thermocouple extension cable is a 600 V individual shielded pairs with an overall shield, thermoset, Class 1E rated construction specifically designed for safety-related or non-safety-related applications in nuclear generating stations
- Designed for use on critical circuits where total isolation is required between pairs and from external interference
- May be installed in trays, conduit or ducts

Features:

- Rated at 90 °C wet or dry
- Fully traceable
- Qualified for 60-year service life
- Gamma and beta radiation resistant (up to 350 megarads)
- Submergence operability
- Long-term thermal endurance and superior electricals
- Excellent mechanical cut-through properties
- Long-term moisture and radiation stability
- Free stripping for ease of termination
- Meets cold bend and impact test at -40°C

Industry Compliances:

- Class 1E Qualified in accordance with IEEE 323-1974/2003 and IEEE 383-1974/2003/2015
- ICEA S-73-532
- ANSI MC96.1

Flame Test Compliances:

- IEEE 383:1974
- IEEE 383:2003
- ICEA T-29-520
- IEEE 1202/FT4-1991, Aged & Unaged
- VW-1

Other:

- Quality assurance program in accordance with NRC 10CFR50 Appendix B
- ANSI N45.2
- ASME NQA-1
- NIAC
- NUPIC

Packaging:

- Material to be shipped on non-returnable wooden reels

Options:

- Other sizes and pair counts are available
- Special Limits of Error conductors are available



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Conductor Type	Conductor Size (AWG)	No. Of Pairs	Min. Avg. Insulation Thickness (Inches)	Drain Wire Size (AWG)	Min. Avg. Jacket Thickness (Inches)
JX, EX, KX, TX	18 and 16	1 - 12	.025	18 and 20	.045

