



**Product:** [83950](#)

Type JX Thermocouple, 1 Pr #20 Str, FEP Ins Wht, Red, Blk FEP Jkt, 300V  
CL3P 200C PLTC SUN RES

[Request Sample](#)

Product Description

Type JX Thermocouple, 1 Pair 20AWG (7x28) Iron+Constantan, FEP Insulation Wht, Red Color Code, Black FEP Outer Jacket, CL3P 200C PLTC SUN RES

Technical Specifications

Product Overview

|                        |                                                                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | Industrial Control, Raceways Cable trays and ducts, Digital Control, Instruments (4-20ma, 0-10v, ...),low voltage digital control (24v, ...), encoders, control circuits, distributed control |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Construction Details

Conductor

| Element | No. of Elements | Size | Stranding | Material          |
|---------|-----------------|------|-----------|-------------------|
| Pair(s) | 1               | 20   | 7x28      | Iron & Constantan |

Insulation

| Material                             | Nom. Thickness    | Nom. Insulation Diameter | Color Code    |
|--------------------------------------|-------------------|--------------------------|---------------|
| FEP - Fluorinated Ethylene Propylene | 0.01 in (0.25 mm) | 0.052 in (1.3 mm)        | White and Red |

Outer Shield

| Shield Type | Material                      | Coverage | Drainwire Type   |
|-------------|-------------------------------|----------|------------------|
| Tape        | Tri-Laminate (Alum+Poly+Alum) | 100%     | 22 AWG (7x30) TC |

Outer Jacket

| Material                             | Nom. Thickness     | Nom. Diameter      |
|--------------------------------------|--------------------|--------------------|
| FEP - Fluorinated Ethylene Propylene | 0.012 in (0.30 mm) | 0.145 in (3.68 mm) |

Electrical Characteristics

Electricals

| Element    | Nom. Conductor DCR          |
|------------|-----------------------------|
| Iron       | 64 Ohm/1000ft               |
| Constantan | 272 Ohm/1000ft (892 Ohm/km) |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V             |

Mechanical Characteristics

Temperature

| UL Temperature | Operating       |
|----------------|-----------------|
| 200°C          | -70°C To +200°C |

Bend Radius

| Stationary Min.   | Installation Min. |
|-------------------|-------------------|
| 1.45 in (36.8 mm) | 1.45 in (36.8 mm) |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 66 lbs (30 kg) |
| Bulk Cable Weight: | 16 lbs/1000ft  |

Standards and Compliance

|                                  |                                                                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor, Outdoor, Sunlight Resistance                                                                                             |
| Flammability / Reaction to Fire: | NFPA 262, UL 910 (Plenum)                                                                                                        |
| NEC / UL Compliance:             | Article 725, CL3P, PLTC                                                                                                          |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                                                                                  |
| Other Standard Compliance(s):    | ISA MC 96.1-1982 Type JX                                                                                                         |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.592 Revision Date: 02-03-2025 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length   | UPC          | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 83950 010500  | Black | Reel       | 500 ft   | 612825205968 | C        |
| 83950 0101000 | Black | Reel       | 1,000 ft | 612825205951 | C        |
| 83950 0105000 | Black | Reel       | 5,000 ft | 612825205975 | C Z      |

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