



Product: [U19142](#)

TC-ER XLPE/LSZH, 19 C #14 Str BC, XLPE Ins E2, Blk LSZH Jkt, 600V  
TC-ER 90C Dry/Wet SUN RES

### Product Description

UL Type TC (1277) XLPE/LSZH, 19 Conductor 14AWG (7x22) Bare Copper, XLPE Insulation E2 Color Code, Black LSZH Outer Jacket, 600V TC-ER 90C Dry/Wet SUN RES

### Technical Specifications

#### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc. |
|------------------------|--|

#### Physical Characteristics (Overall)

##### Conductor

| Element      | AWG | Stranding | Material         | No. of Conductors |
|--------------|-----|-----------|------------------|-------------------|
| Conductor(s) | 14  | 7x22      | BC - Bare Copper | 19                |

|                  |    |
|------------------|----|
| Conductor Count: | 19 |
|------------------|----|

##### Insulation

| Material                    | Nominal Diameter | Nominal Wall Thickness |
|-----------------------------|------------------|------------------------|
| XLP, XLPO, XLPE (Thermoset) | 0.133 in         | 0.031 in               |

##### Color Chart

| Number             | Color  |
|--------------------|--|
| 1                  | Black  |
| 2                  | Red  |
| 3                  | Blue   |
| 4                  | Orange                                       |
| 5                  | Yellow                                       |
| 6                  | Brown  |
| Conductors 7 - 11  | Same as 2 -6 except with Black Stripe        |
| Conductors 12 - 16 | Same as 1, 3-6 except with Red Stripe        |
| Conductors 17 - 19 | Same as 1 & 2, 4 - 6 except with Blue Stripe |

##### Outer Jacket

| Material  | Nominal Diameter | Nominal Wall Thickness |
|---|------------------|------------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 0.826 in         | 0.083 in               |

#### Electrical Characteristics

##### Conductor DCR

|                              |
|------------------------------|
| <b>Nominal Conductor DCR</b> |
| 2.52 Ohm/1000ft              |

##### Current

|                                     |
|-------------------------------------|
| <b>Max. Recommended Current [A]</b> |
| 12.5 Amps per Conductor at 30°C     |

## Voltage

| UL Description | UL Voltage Rating   | Voltage Rating [V]  |
|----------------|---------------------|---------------------|
| TC             | 600 V RMS (Type TC) | 600 V RMS (Type TC) |

## Temperature Range

|                              |                    |
|------------------------------|--------------------|
| UL Temp Rating:              | 90°C Dry, 90°C Wet |
| Operating Temperature Range: | -30°C To +90°C     |
| Wet Temp Range:              | -30°C To +90 °C    |

## Mechanical Characteristics

|                              |                |
|------------------------------|----------------|
| Bulk Cable Weight:           | 491 lbs/1000ft |
| Max. Pull Tension:           | 612 lbs        |
| Min. Bend Radius/Minor Axis: | 3.30 in        |

## Standards

|                      |               |
|----------------------|---------------|
| NEC/(UL) Compliance: | TC-ER, XHHW-2 |
|----------------------|---------------|

## Applicable Environmental and Other Programs

|  |                               |
|--|-------------------------------|
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/11/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |

## Suitability

|                                    |     |
|------------------------------------|-----|
| Suitability - Indoor:              | Yes |
| Suitability - Outdoor:             | Yes |
| Suitability - Sunlight Resistance: | Yes |

## Flammability, LS0H, Toxicity Testing

|                    |                     |
|--------------------|---------------------|
| UL Flammability:   | UL1685 UL Loading   |
| IEEE Flammability: | 1202                |
| UL voltage rating: | 600 V RMS (Type TC) |

## History

|                      |   |
|----------------------|---|
| Update and Revision: | Revision Number: 0.51 Revision Date: 01-10-2024 |
|----------------------|---|

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