



**Product:** [8451](#) 

Audio & Instrumentation, 1 Pair 22 AWG, TC, O/A Foil, CM

## Product Description

1 Pair 22 AWG stranded (7x30) TC conductors, polypropylene insulation, paper wrap, twisted pair, overall Beldfoil® shield (100% coverage), 22 AWG stranded TC drain wire, PVC jacket.

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | for use with automatic stripping equipments; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, ...); line level audio; computer communication; panel wiring |
|------------------------|--|

### Construction Details

#### Conductor

| Element      | No. of Elements | Size   | Stranding | Material           |
|--------------|-----------------|--------|-----------|--------------------|
| Conductor(s) | 1               | 22 AWG | 7x30      | TC - Tinned Copper |

#### Insulation

| Element      | Material           | Nom. Thickness     | Nom. Insulation Diameter | Color Code  |
|--------------|--------------------|--------------------|--------------------------|-------------|
| Conductor(s) | PP - Polypropylene | 0.009 in (0.23 mm) | 0.046 in (1.2 mm)        | Black & Red |

#### Outer Shield

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

#### Outer Jacket

| Material                 | Nom. Thickness     | Nom. Diameter      |
|--------------------------|--------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.020 in (0.51 mm) | 0.138 in (3.51 mm) |

Overall Cable Diameter (Nominal): 0.138 in (3.51 mm)

### Electrical Characteristics

#### Electricals

| Element | Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Capacitance Cond-to-Other (Conds + Shield) | Nom. Characteristic Impedence | Nom. Inductance Cond-Grnd | Nom. Delay | Nom. Inductance        | Nom. Velocity of Prop. | Max. Current                   |
|---------|--------------------|-------------------------------|---|-------------------------------|---------------------------|------------|------------------------|------------------------|--------------------------------|
| Pair(s) | 17.8 Ohm/1000ft    | 34 pF/ft (110 pF/m)           | 67 pF/ft (220 pF/m)                             | 45 Ohm                        | 0.1725 µH/ft              | 1.5 ns/ft  | 0.17 µH/ft (0.56 µH/m) | 66%                    | 2.9 Amps per Conductor at 25°C |

Nom Outer Shield DCR@Cond DCR1-cn: 14.1 Ohm/1000ft (46.3 Ohm/km)

#### Voltage

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

### Mechanical Characteristics

#### Temperature

| Operating      |
|----------------|
| -20°C To +75°C |

## Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 1.4 in (36 mm)  | 1.4 in (36 mm)    |

|                    |                |
|--------------------|----------------|
| Max. Pull Tension: | 27 lbs (12 kg) |
| Bulk Cable Weight: | 13 lbs/1000ft  |

## Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor - Riser, Indoor  |
| Flammability / Reaction to Fire: | UL 1666 Riser, FT4, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca   |
| NEC / UL Compliance:             | Article 800, CMR  |
| CEC / C(UL) Compliance:          | CMG   |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark   |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)   |

## Product Notes

|        |  |
|--------|--|
| Notes: | Unique paper separator facilitates jacket stripping. |
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## History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.562 Revision Date: 09-07-2025 |
|----------------------|--|

## Part Numbers

### Variants

| Item #        | Color | Putup Type   | Length    | UPC          | Footnote |
|---------------|-------|--------------|-----------|--------------|----------|
| 8451 010100   | Black | Reel         | 100 ft    | 612825207726 |          |
| 8451 010500   | Black | Reel         | 500 ft    | 612825207764 |          |
| 8451 010U500  | Black | UnReel       | 500 ft    | 612825427414 |          |
| 8451 0101000  | Black | Reel         | 1,000 ft  | 612825207733 | C        |
| 8451 010U1000 | Black | UnReel       | 1,000 ft  | 612825207702 |          |
| 8451 010Z1000 | Black | ReelTuff Box | 1,000 ft  | 612825208129 |          |
| 8451 01015000 | Black | Reel         | 5,000 ft  | 612825207757 |          |
| 8451 0105000  | Black | Reel         | 5,000 ft  | 612825207696 |          |
| 8451 01010000 | Black | Reel         | 10,000 ft | 612825207740 |          |
| 8451 008500   | Gray  | Reel         | 500 ft    | 612825207658 |          |
| 8451 008U500  | Gray  | UnReel       | 500 ft    | 612825427407 |          |
| 8451 0081000  | Gray  | Reel         | 1,000 ft  | 612825207689 | C        |
| 8451 008U1000 | Gray  | UnReel       | 1,000 ft  | 612825207665 |          |
| 8451 008Z1000 | Gray  | ReelTuff Box | 1,000 ft  | 612825207719 |          |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

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