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## SynTex® 155

SynTex® 155 is a flexible low voltage lead-out cable consisting of one cable made of bare or tinned wires and coated with a multi-layer insulation. The multi-layer insulation consists up to 2.5 mm<sup>2</sup> of braided acetate silk with an additional polyester film which is counterwound with Nomex® paper. Finally, it is braided with a polyester filament yarn and coated with polyurethane.

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### Attributes

SynTex® 155 achieves thermal class F (155 °C) and provides excellent thermal resistance, even for short-term thermal overload, due to its textile insulation. In addition to its high abrasion resistance, this type of insulation also offers excellent dielectric strength. Cable skinning occurs mechanically. SynTex® 155 is halogen and silicone free. 0.25 - 2.50 mm<sup>2</sup> with acetate silk braiding, 4.00 - 95.00 mm<sup>2</sup> without braiding.

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### Application

SynTex® 155 is used as a connection cable in high-quality electric motor and transformer applications under permanent high thermal and mechanical stress. It also offers sufficient safety for applications with permanent high thermal stress in apparatus, machine and plant engineering.

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### Standards

- DIN VDE 0472

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### Delivery forms

Standard delivery form:

| Nominal cross section / mm <sup>2</sup> | Length / m | Format |
|-----------------------------------------|------------|--------|
| 0.25 - 4.00                             | 100        | rings  |
| 6.00 - 35.0                             | 50         | rings  |
| 50.0 - 95.0                             | 25         | rings  |

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### Conductor

Tinned copper wire DIN VDE 0472.

Semi-concentric cable made of bare or tinned wires. The dimensions specified in the technical datasheet are regarded as standard values. The actual cross sections may vary. The cables are manufactured according to European standards with a metric conductor cross section. Always observe relevant standards valid for divergent operating conditions when laying for greater limit current loads.

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## Color

White is the standard colour as well as plain red, green, blue and black.

0.25 - 6.00 mm<sup>2</sup> white also with yellow, green, red, blue, black, violet, or grey tracer.

All diameters up to 6 mm<sup>2</sup> also available in uni-colours. From 10 mm<sup>2</sup> also white is available.

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| Dimension             | Unit of measure |           |           |           |           |           |           |
|-----------------------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Nominal cross section | mm <sup>2</sup> | 0.25      | 0.50      | 0.75      | 1.00      | 1.50      | 2.50      |
| Strands x diameter    | mm              | 14 x 0.15 | 16 x 0.20 | 24 x 0.20 | 32 x 0.20 | 30 x 0.25 | 50 x 0.25 |
| Outer diameter        | mm              | 1.70      | 1.90      | 2.20      | 2.35      | 2.60      | 3.00      |
| Tolerance             | mm              | ±0.10     | ±0.10     | ±0.10     | ±0.10     | ±0.10     | ±0.10     |

| Dimension             | Unit of measure |           |           |           |            |            |            |
|-----------------------|-----------------|-----------|-----------|-----------|------------|------------|------------|
| Nominal cross section | mm <sup>2</sup> | 4.00      | 6.00      | 10.00     | 16.00      | 25.00      | 35.00      |
| Strands x diameter    | mm              | 56 x 0.30 | 84 x 0.30 | 80 x 0.40 | 126 x 0.40 | 196 x 0.40 | 280 x 0.40 |
| Outer diameter        | mm              | 4.00      | 4.90      | 5.80      | 7.00       | 8.50       | 10.20      |
| Tolerance             | mm              | ±0.15     | ±0.20     | ±0.20     | ±0.20      | 0.25       | ±0.25      |

| Dimension             | Unit of measure |       |       |       |
|-----------------------|-----------------|-------|-------|-------|
| Nominal cross section | mm <sup>2</sup> | 50.00 | 70.00 | 95.00 |

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| Dimension          | Unit of measure |            |            |            |
|--------------------|-----------------|------------|------------|------------|
| Strands x diameter | mm              | 399 x 0.40 | 560 x 0.40 | 483 x 0.50 |
| Outer diameter     | mm              | 11.70      | 14.00      | 16.00      |
| Tolerance          | mm              | ±0.30      | ±0.40      | ±0.40      |

| Mechanical  |                      |
|-------------|----------------------|
| Bend radius | ≥ 4 x outer diameter |

| Thermal           |                   |
|-------------------|-------------------|
| Thermal class     | F                 |
| Temperature range | -40 up to +155 °C |
| Thermal pressure  | appr. 20 %        |

| Electrical            | Unit of measure |                           |
|-----------------------|-----------------|---------------------------|
| Operating voltage     | V               | max. 800                  |
| Insulation resistance | Ω               | ≥ 200 MΩ x km             |
| Testing voltage       |                 | 4.0 kV (Sinus/50Hz/2 min) |

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