

# Wire – TFFN Type



106100602440  
TFFN16WH

## Applications

Type TFFN (stranded) conductors are primarily used as fixture wire as specified by the National Electrical Code (NEC), at temperatures not to exceed 90°C in dry locations. Voltage rating is 600 volts.

TFFN wire is sold in 500 foot spools; certain sizes are also available in 2500 foot reels.

## Features

### Conductors

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8

### Insulation

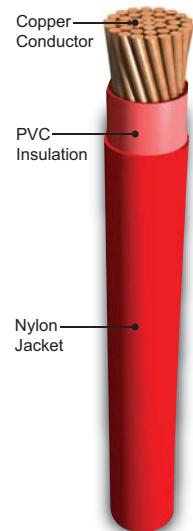
Color-coded Polyvinyl Chloride (PVC) heat- and moisture-resistant, flame-retardant compound per UL-1063 and UL-83

### Jacket

Tough, polyamide, nylon outer covering per UL-1063 and UL-83. Slick Nylon outer jacket for easy pulling.

## Ratings

VW-1 rated and rated "gasoline and oil resistant II"



TFFN  
Type

## Type TFFN Wire Specifications

| Size<br>(AWG or kcmil) | Number of<br>Strands | Cross-sectional<br>Area (mm <sup>2</sup> )<br>(According to NEC) | Insulation<br>Thickness<br>(inches) | Nylon Jacket<br>Thickness<br>(inches) | Overall Outside<br>Diameter |       | Allowable<br>Ampacities* | Approx.<br>Weight (lbs)<br>500'/2500' | Standard<br>Packaging<br>spool/reel |
|------------------------|----------------------|--|-------------------------------------|---------------------------------------|-----------------------------|-------|--------------------------|---------------------------------------|-------------------------------------|
|                        |                      |  |                                     |                                       | (inches)                    | (mm)  |                          |                                       |                                     |
| 18                     | 16                   | 3.548  | 0.015                               | 0.004                                 | 0.088                       | 2.24  | 6                        | 4/20                                  | 500' or 2500'                       |
| 16                     | 26                   | 4.645  | 0.015                               | 0.004                                 | 0.101                       | 2.545 | 8                        | 5.5/27.5                              |                                     |

*\*Note: Allowable ampacity shown above is per the 2005 National Electrical Code, Section 402, Table 402.5. The above data is approximate and subject to normal manufacturing tolerances.*

## Type TFFN Wire

| Part Number | Color      | Gauge  | Description                                  | Spool/Reel Length | Approx. Weight | Price  |
|-------------|------------|--------|--|-------------------|----------------|--------|
| TFFN18BK    | Black      | 18 AWG | Type TFFN copper wire, 16 strands, 600 Volts | 500'              | 4 lbs          | <-->   |
| TFFN18WH    | White      |        |  |                   |                | <-->   |
| TFFN18RD    | Red        |        |  |                   |                | <-->   |
| TFFN18BL    | Blue       |        |  |                   |                | <-->   |
| TFFN18GN    | Green      |        |  |                   |                | <-->   |
| TFFN18YL    | Yellow     |        |  |                   |                | <-->   |
| TFFN18OR    | Orange     |        |  |                   |                | <-->   |
| TFFN18BN    | Brown      |        |  |                   |                | <-->   |
| TFFN18PK    | Pink       |        |  |                   |                | <-->   |
| TFFN18PL    | Purple     |        |  |                   |                | <-->   |
| TFFN18GY    | Gray       |        |  |                   |                | <-->   |
| TFFN18TN    | Tan        |        |  |                   |                | <-->   |
| TFFN18BW    | Blue/White |        |  |                   |                | <-->   |
| TFFN16BK    | Black      |        |  |                   |                | 16 AWG |
| TFFN16WH    | White      | <-->   |  |                   |                |        |
| TFFN16RD    | Red        | <-->   |  |                   |                |        |
| TFFN16BL    | Blue       | <-->   |  |                   |                |        |
| TFFN16GN    | Green      | <-->   |  |                   |                |        |
| TFFN16YL    | Yellow     | <-->   |  |                   |                |        |
| TFFN16OR    | Orange     | <-->   |  |                   |                |        |
| TFFN16BN    | Brown      | <-->   |  |                   |                |        |
| TFFN16GY    | Gray       | <-->   |  |                   |                |        |
| TFFN16BW    | Blue/White | <-->   |  |                   |                |        |

# Wire – TFFN Type

| Type TFFN Wire    |            |        |  |                   |                |        |
|-------------------|------------|--------|--|-------------------|----------------|--------|
| Part Number       | Color      | Gauge  | Description                                  | Spool/Reel Length | Approx. Weight | Price  |
| <b>TFFN18BK25</b> | Black      | 18 AWG | Type TFFN copper wire, 16 strands, 600 Volts | 2500'             | 20 lbs         | <-->   |
| <b>TFFN18WH25</b> | White      |        |  |                   |                | <-->   |
| <b>TFFN18RD25</b> | Red        |        |  |                   |                | <-->   |
| <b>TFFN18BL25</b> | Blue       |        |  |                   |                | <-->   |
| <b>TFFN18GN25</b> | Green      |        |  |                   |                | <-->   |
| <b>TFFN18YL25</b> | Yellow     |        |  |                   |                | <-->   |
| <b>TFFN18OR25</b> | Orange     |        |  |                   |                | <-->   |
| <b>TFFN18BN25</b> | Brown      |        |  |                   |                | <-->   |
| <b>TFFN18PK25</b> | Pink       |        |  |                   |                | <-->   |
| <b>TFFN18PL25</b> | Purple     |        |  |                   |                | <-->   |
| <b>TFFN18GY25</b> | Gray       |        |  |                   |                | <-->   |
| <b>TFFN18TN25</b> | Tan        |        |  |                   |                | <-->   |
| <b>TFFN18BW25</b> | Blue/White |        |  |                   |                | <-->   |
| <b>TFFN16BK25</b> | Black      |        |  |                   |                | 16 AWG |
| <b>TFFN16WH25</b> | White      | <-->   |  |                   |                |        |
| <b>TFFN16RD25</b> | Red        | <-->   |  |                   |                |        |
| <b>TFFN16BL25</b> | Blue       | <-->   |  |                   |                |        |
| <b>TFFN16GN25</b> | Green      | <-->   |  |                   |                |        |
| <b>TFFN16YL25</b> | Yellow     | <-->   |  |                   |                |        |
| <b>TFFN16OR25</b> | Orange     | <-->   |  |                   |                |        |
| <b>TFFN16BN25</b> | Brown      | <-->   |  |                   |                |        |
| <b>TFFN16PK25</b> | Pink       | <-->   |  |                   |                |        |
| <b>TFFN16PL25</b> | Purple     | <-->   |  |                   |                |        |
| <b>TFFN16GY25</b> | Gray       | <-->   |  |                   |                |        |
| <b>TFFN16TN25</b> | Tan        | <-->   |  |                   |                |        |
| <b>TFFN16BW25</b> | Blue/White | <-->   |  |                   |                |        |

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# Wire – Gauge Conversion Tables

| <b>American Wire Gauge Conversion Chart*</b>  |                 |         |                 |
|---|-----------------|---------|-----------------|
| This cross reference shows equivalent nominal values. Actual cross sections may vary. |                 |         |                 |
| AWG   | mm <sup>2</sup> | AWG     | mm <sup>2</sup> |
| 30  | 0.05            | 6       | 16              |
| 28  | 0.08            | 4       | 25              |
| 26  | 0.14            | 2       | 35              |
| 24  | 0.25            | 1       | 50              |
| 22  | 0.34            | 1/0     | 55              |
| 21  | 0.38            | 2/0     | 70              |
| 20  | 0.50            | 3/0     | 95              |
| 18  | 0.75            | 4/0     | 120             |
| 17  | 1.00            | 300MCM  | 150             |
| 16  | 1.50            | 350MCM  | 185             |
| 14  | 2.50            | 500MCM  | 240             |
| 12  | 4               | 600MCM  | 300             |
| 10  | 6               | 750MCM  | 400             |
| 8   | 10              | 1000MCM | 500             |

**\*Note: Table shows commercially used equivalent values.**

You will find product MSDS information and a complete glossary of wire terminology on our Web site at <http://support.automationdirect.com/products/wire.html>