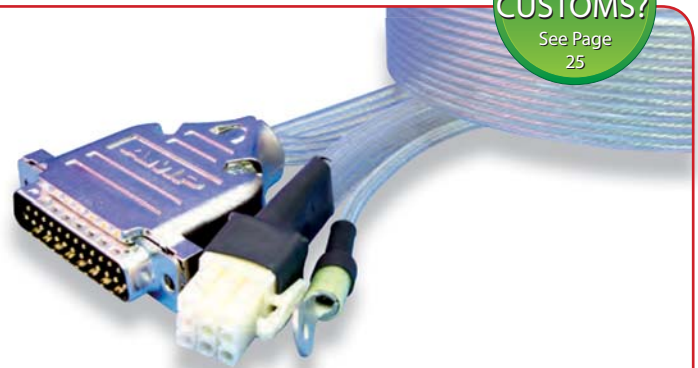


# Hi-Flex Unshielded Cable

- Ideal for High Performance Power & Control Applications
- Ultra Flexible Cable for Confined Area and Continuous Motion
- 4 AWG - 28 AWG Conductors Available in 2 - 12 Conductors

Cicoil's line of Hi-Flex Unshielded Cables provides the advantages of all Cicoil flexible cables in a standard, low-cost package. Ultra-flexible, finely stranded wire conductors are used for maximum flexibility and long life in dynamic, flexing applications. Cicoil's patented extrusion process encapsulates the wire conductors in a crystal clear, flexible, yet extremely durable Flexx-Sil™ insulation.



**NEED  
CUSTOMS?**  
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 **UL** MEETS 94V-0   
  **SP**   
  **CE**   
  **RoHS** COMPLIANT   
  **REACH** COMPLIANT   
  **FAA** FLAME TESTED

**Applications**  
 Aerospace, Festoon Systems, Robotics,  
 Medical, Oil Drilling, Packaging

## Cable

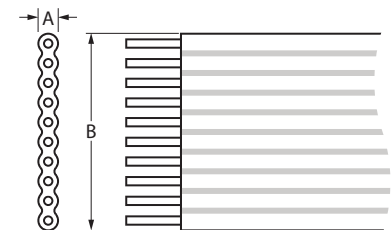
| Amp Rating <sup>1</sup> | Volts DC | Conductor Gauge | No. of Conductors | Dimensions [inches] |        | Part Number   |
|-------------------------|----------|-----------------|-------------------|---------------------|--------|---------------|
|                         |          |                 |                   | Width               | Height |               |
| 5                       | 12K      | 28 AWG          | 2                 | 0.13                | 0.08   | 969M101-28-2  |
|                         |          |                 | 3                 | 0.18                | 0.08   | 969M101-28-3  |
|                         |          |                 | 4                 | 0.23                | 0.08   | 969M101-28-4  |
|                         |          |                 | 6                 | 0.33                | 0.08   | 969M101-28-6  |
|                         |          |                 | 8                 | 0.43                | 0.08   | 969M101-28-8  |
|                         |          |                 | 10                | 0.53                | 0.08   | 969M101-28-10 |
| 6                       | 12K      | 26 AWG          | 2                 | 0.14                | 0.09   | 969M101-26-2  |
|                         |          |                 | 3                 | 0.19                | 0.09   | 969M101-26-3  |
|                         |          |                 | 4                 | 0.25                | 0.09   | 969M101-26-4  |
|                         |          |                 | 6                 | 0.35                | 0.09   | 969M101-26-6  |
|                         |          |                 | 8                 | 0.46                | 0.09   | 969M101-26-8  |
|                         |          |                 | 10                | 0.57                | 0.09   | 969M101-26-10 |
| 8                       | 12K      | 24 AWG          | 2                 | 0.15                | 0.10   | 969M101-24-2  |
|                         |          |                 | 3                 | 0.21                | 0.10   | 969M101-24-3  |
|                         |          |                 | 4                 | 0.27                | 0.10   | 969M101-24-4  |
|                         |          |                 | 6                 | 0.38                | 0.10   | 969M101-24-6  |
|                         |          |                 | 8                 | 0.5                 | 0.10   | 969M101-24-8  |
|                         |          |                 | 10                | 0.62                | 0.10   | 969M101-24-10 |
| 11                      | 18K      | 22 AWG          | 12                | 0.74                | 0.10   | 969M101-24-12 |
|                         |          |                 | 2                 | 0.18                | 0.11   | 969M101-22-2  |
|                         |          |                 | 3                 | 0.25                | 0.11   | 969M101-22-3  |
|                         |          |                 | 4                 | 0.32                | 0.11   | 969M101-22-4  |
|                         |          |                 | 6                 | 0.45                | 0.11   | 969M101-22-6  |
|                         |          |                 | 8                 | 0.59                | 0.11   | 969M101-22-8  |
|                         |          |                 | 10                | 0.73                | 0.11   | 969M101-22-10 |
|                         |          |                 | 12                | 0.87                | 0.11   | 969M101-22-12 |

### Note

1. Amp rating is the maximum value for each conductor at room temperature of 70°F (21 °C). Amp rating decreases as temperature increases.

## Dimensions

### 2-12 Conductors



### Cable Assemblies - 22-28 AWG



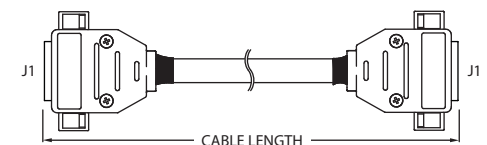
Please contact Cicoil for other connectors and length options.

| Cable Length (feet) | Part Number Addition |
|---------------------|----------------------|
| 3                   | -CA003               |
| 6                   | -CA006               |
| 12                  | -CA012               |

### Notes

1. Append onto base cable Part Number for complete assembly. Example: 969M101-28-2-CA003
2. Connector ratings may differ from cable ratings; refer to manufacturer specifications.

### Assembly Dimensions



### Connectors for 28 AWG

- Signal (J1): 25-Pos D-SUB - Amphenol, P/N L717-DB25P Metallized Shell - TE, P/N 5748677-3

### Connectors for 22-26 AWG

- Signal (J1): Gold Contacts - TE, P/N 745254-2  
 25-Pos D-SUB Housing - TE, P/N 5205208-1

## Cable (continued)

| Amp Rating <sup>1</sup> | Volts DC | Conductor Gauge | No. of Conductors | Dimensions [inches] |        | Part Number   |
|-------------------------|----------|-----------------|-------------------|---------------------|--------|---------------|
|                         |          |                 |                   | Width               | Height |               |
| 13                      | 18K      | 20 AWG          | 2                 | 0.2                 | 0.12   | 969M101-20-2  |
|                         |          |                 | 3                 | 0.28                | 0.12   | 969M101-20-3  |
|                         |          |                 | 4                 | 0.36                | 0.12   | 969M101-20-4  |
|                         |          |                 | 6                 | 0.51                | 0.12   | 969M101-20-6  |
|                         |          |                 | 8                 | 0.67                | 0.12   | 969M101-20-8  |
|                         |          |                 | 10                | 0.83                | 0.12   | 969M101-20-10 |
|                         |          |                 | 12                | 0.99                | 0.12   | 969M101-20-12 |
| 20                      | 20K      | 18 AWG          | 2                 | 0.24                | 0.14   | 969M101-18-2  |
|                         |          |                 | 3                 | 0.33                | 0.14   | 969M101-18-3  |
|                         |          |                 | 4                 | 0.43                | 0.14   | 969M101-18-4  |
|                         |          |                 | 6                 | 0.62                | 0.14   | 969M101-18-6  |
|                         |          |                 | 8                 | 0.81                | 0.14   | 969M101-18-8  |
|                         |          |                 | 10                | 1.00                | 0.14   | 969M101-18-10 |
|                         |          |                 | 12                | 1.19                | 0.14   | 969M101-18-12 |
| 26                      | 20K      | 16 AWG          | 2                 | 0.26                | 0.15   | 969M101-16-2  |
|                         |          |                 | 3                 | 0.37                | 0.15   | 969M101-16-3  |
|                         |          |                 | 4                 | 0.48                | 0.15   | 969M101-16-4  |
|                         |          |                 | 6                 | 0.70                | 0.15   | 969M101-16-6  |
|                         |          |                 | 8                 | 0.92                | 0.15   | 969M101-16-8  |
|                         |          |                 | 10                | 1.14                | 0.15   | 969M101-16-10 |
|                         |          |                 | 12                | 1.36                | 0.15   | 969M101-16-12 |
| 27                      | 20K      | 14 AWG          | 3                 | 0.47                | 0.19   | 969M101-14-3  |
|                         |          |                 | 4                 | 0.61                | 0.19   | 969M101-14-4  |
|                         |          |                 | 8                 | 1.16                | 0.19   | 969M101-14-8  |
| 36                      | 20K      | 12 AWG          | 3                 | 0.58                | 0.24   | 969M101-12-3  |
|                         |          |                 | 4                 | 0.75                | 0.24   | 969M101-12-4  |
| 47                      | 20K      | 10 AWG          | 4                 | 0.92                | 0.29   | 969M101-10-4  |
| 65                      | 20K      | 8 AWG           | 4                 | 1.17                | 0.35   | 969M101-8-4   |
| 95                      | 20K      | 6 AWG           | 4                 | 1.47                | 0.40   | 969M101-6-4   |
| 125                     | 20K      | 4 AWG           | 4                 | 1.64                | 0.47   | 969M101-4-4   |

### Note

1. Amp rating is the maximum value for each conductor at room temperature of 70°F (21°C). Amp rating decreases as temperature increases.

## Cable Assemblies – 4-20 AWG



Please contact Cicoil for other connectors and length options.

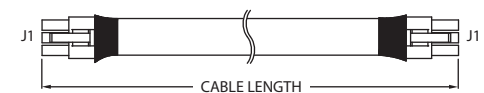


| Cable Length (feet) | Part Number Addition |
|---------------------|----------------------|
| 3                   | -CA003               |
| 6                   | -CA006               |
| 12                  | -CA012               |

### Notes

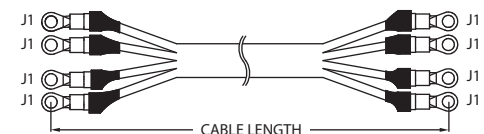
- Append onto base cable Part Number for complete assembly.  
Example: 969M101-20-2-CA003
- Connector ratings may differ from cable ratings; refer to manufacturer specifications.

### Assembly Dimensions



### Connectors for 14-20 AWG

- Signal (J1): Gold Contacts - MOLEX, P/N 02-09-6110
- 15-Pos Housing - MOLEX, P/N 19-09-2159



### Connectors for 4-12 AWG

- Signal (J1): Ring Lugs - Typical

## Cable Specifications

All engineering values are nominal and subject to change.

| Mechanical                                                                                                       | Environmental                                                                        |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Conductors:</b> Ultra flexible, finely stranded, tinned copper                                                | <b>Temperature Rating:</b> -65°C to +165°C                                           |
| <b>Minimum Bend Radius:</b><br>- 6x cable height for intermediate flex<br>- 10x cable height for continuous flex | <b>Moisture Rating:</b> Submersible, Salt Water Resistant                            |
| <b>Outer Jacket Durometer Rating:</b> 65 (Shore A)                                                               | <b>Clean Room Rating:</b> Class 1, Zero Particulates                                 |
|                                                                                                                  | <b>Extreme Environments:</b> Sunlight, UV Light, Alcohol, Chemical and Oil Resistant |
|                                                                                                                  | Electrical                                                                           |
|                                                                                                                  | <b>Outer Jacket Dielectric Strength:</b> 450 volts/mil (17.7 kv/mm)                  |
|                                                                                                                  | See Electrical Rating Chart on Page 47                                               |

## Options

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