

Hi-Flex Shielded Signal Cable

- Ideal for High Performance Data Transmission Applications
- Ultra Flexible for Confined Area and Continuous Motion
- Twisted Shielded Signal Pairs for Excellent EMI/RFI Protection

Cicoil's Hi-Flex Shielded Signal cables are ideal for the most demanding data transmission applications. Cicoil's patented extrusion process allows individually shielded pairs to be placed in a highly flexible flat profile, while exceeding electrical and signal requirements. These flat cable designs are an excellent alternative to bulky round and stiffer PVC or Teflon flat cable designs.



#### Cable

| Conductor | Amn Dating              | No. of Pairs | Dimensions [inches] |        | Part            |
|-----------|-------------------------|--------------|---------------------|--------|-----------------|
| Gauge     | Amp Rating <sup>1</sup> |              | Width               | Height | Number          |
| 28 AWG    | 5                       | 1            | 0.12                | 0.12   | 969M101-28-1TPS |
|           |                         | 2            | 0.21                | 0.12   | 969M101-28-2TPS |
|           |                         | 3            | 0.31                | 0.12   | 969M101-28-3TPS |
|           |                         | 5            | Ø0.21               | Ø0.21  | 969M101-28-5TPS |
|           | 6                       | 1            | 0.13                | 0.13   | 969M101-26-1TPS |
| 26 AWG    |                         | 2            | 0.23                | 0.13   | 969M101-26-2TPS |
|           |                         | 3            | 0.32                | 0.13   | 969M101-26-3TPS |
|           | 7                       | 1            | 0.14                | 0.14   | 969M101-24-1TPS |
| 24 AWG    |                         | 2            | 0.25                | 0.14   | 969M101-24-2TPS |
|           |                         | 3            | 0.36                | 0.14   | 969M101-24-3TPS |
| 22 AWG    | 8                       | 1            | 0.15                | 0.15   | 969M101-22-1TPS |
|           |                         | 2            | 0.27                | 0.15   | 969M101-22-2TPS |
|           |                         | 3            | 0.40                | 0.15   | 969M101-22-3TPS |
| 18 AWG    | 15                      | 1            | 0.21                | 0.21   | 969M101-18-1TPS |
|           |                         | 2            | 0.38                | 0.21   | 969M101-18-2TPS |
|           |                         | 3            | 0.56                | 0.21   | 969M101-18-3TPS |

#### Notes

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

Environmental

**Flectrical** 

#### Cable Assemblies



Please contact Cicoil for other connectors and length options.

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

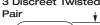
#### Notes

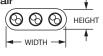
- 1. Append onto base cable Part Number for complete assembly. Example: 969M101-28-1TPS-CA003
- 2. Connector ratings may differ from cable ratings; refer to manufacturer specifications.

## **Dimensions**









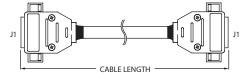
2 Discreet Twisted Pair



**5X TWISTED PAIR** 



## Assembly Dimensions



## Connectors

| Wire ( | Gauge | Signal (J1)  |
|--------|-------|--|
| 2      | 8     | 25-Pin - Amphenol, P/N L717-DB25P<br>Metallized Shell - TE, P/N 5748677-3    |
| 22-    | -26   | Gold Contacts - TE, P/N 745254-2<br>25-Pos D-SUB Housing - TE, P/N 5205208-1 |
| 1      | 8     | Gold Contacts - MOLEX, P/N 02-09-6110<br>9-Pos Housing - MOLEX, P/N 3092092  |

## Cable Specifications

All engineering values are nominal and subject to change.

## Mechanical

Conductors: Ultra flexible, finely stranded, tinned copper

Shielding: Ultra flexible, braided shields, with 90% nominal coverage

#### Minimum Bend Radius:

- 6x cable height for intermediate flex
- 10x cable height for continuous flex Flex Life: 10,000,000 cycles nominal

Outer Jacket Durometer Rating: 65 (Shore A)

Outer Jacket Dielectric Strength: 450 volts/mil (17.7 kv/mm)

Extreme Environments: Sunlight, UV Light, Alcohol, Chemical and Oil Resistant

See Electrical Rating Chart on Page 47

Temperature Rating: -65°C to +165°C

Moisture Rating: Submersible, Salt Water Resistant

Clean Room Rating: Class 1, Zero Particulates

# **Options**

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