

## Flexibility

Twice as flexible as competitive flat cables, making them ideal for linear motion and tight-space applications.

## Durability

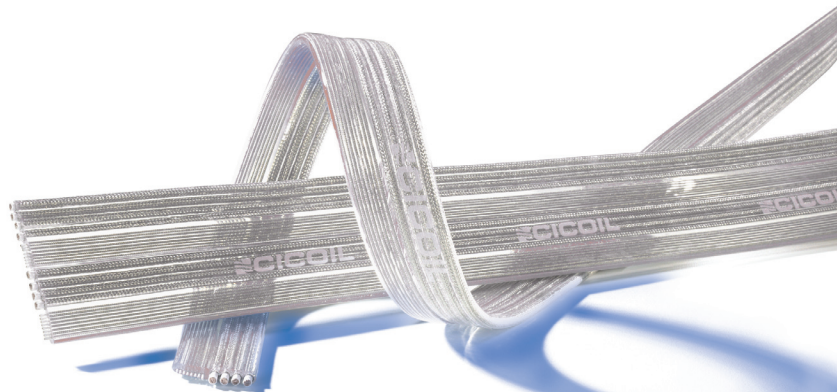
All wires are fully encapsulated in 'glass-clear' silicone, in a solid, one-piece construction, creating a highly durable cable package. The cable will not deform, break or wear for the lifetime of the product, even in high flex applications.

## Extreme Environments

Cicoil cables perform in temperatures from -65°C to 260°C, and during exposure to water, steam, and chemicals. They are also ideal for vacuum or clean room environments.

## Availability

Standard cables are in stock for immediate delivery. Custom designs, including cable assemblies with standard connectors, are also available with minimum lead times.



For High Performance Motion Applications

Power and Signal Wires in one Cable, for 1, 2 or 3 Servo Axes

High-Flex, Shielded Wires

Available in Stock for  
1KW, 2KW, and 3KW Servo Motors

## Specifications

### Electrical

**Inductance:** .0118 µh/ft

**Velocity of Propagation:** 69.5%

**Conductor Resistance:** 3.6 Ω/1,000 ft.

**Impedance:** 10.5 Ω

**Capacitance:** 139.72 pF/Ft

**Insulation Resistance:** 200 megΩ @ 500Vdc

**Dielectric Strength:** 450 volts/mil (17.7KV/mm)

**Dielectric Constant:** 2.8-3.0

### Environmental

**Temperature Rating:** -65°C to 260°C

**Moisture Rating:** Submersible

**Vacuum Rating:** 5 x 10<sup>-5</sup> torr<sup>①</sup>

**Outgassing:** 0.24 %TML, 0.02 %CVCM<sup>②</sup>

**Radiation:** 10<sup>7</sup> Roentgens (exposure)

**Acid Resistance:** Good

**Ozone Resistance:** Outstanding

**Oil Resistance:** Good

**Flame Resistance:** Good

**Water/Steam Resistance:** Excellent (Including salt and DIW)

**Alcohol Resistance:** Good

**Toxins:** Halogen-free

### Mechanical

**Life Expectancy:** 10,000,000 cycles, min.<sup>③</sup>

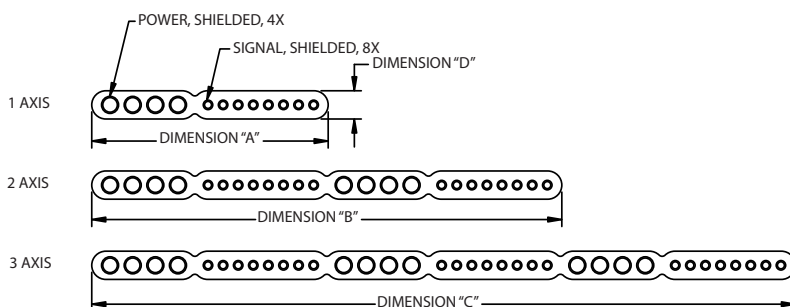
### Approvals

NASA 1124 (Outgassing for Spacecraft Materials)

UL Recognized—File #E324413, CE

### Notes

- Cicoil cable can exceed this rating when specified
- Cicoil outgassed cables are NASA rated for space applications (NASA Outgassing spec 1124)
- Continuous flexing applications



|              | DIMENSIONS (inches) |        |        |      | WIRE GAUGE |            |                  |
|--------------|---------------------|--------|--------|------|------------|------------|------------------|
| POWER RATING | 1 AXIS              | 2 AXIS | 3 AXIS | D    | POWER AWG  | SIGNAL AWG | MIN. BEND RADIUS |
| 1KW          | .846                | 1.682  | 2.518  | .101 | 22         | 28         | 1"               |
| 2KW          | .950                | 1.890  | 2.830  | .137 | 18         | 28         | 1.4"             |
| 3KW          | 1.098               | 2.186  | 3.274  | .194 | 14         | 28         | 2"               |

Select basic Part Number based on Power Rating and Number of Axes required. Replace "XXX" with length in Feet.

**Example:** MC-2000-2-075; 2KW Cable with 2 Axes; 75 feet.

| ORDER INFORMATION |             |                |               |
|-------------------|-------------|----------------|---------------|
| POWER RATING      | NO. OF AXES | WIDTH [Inches] | PART NUMBER   |
| 1KW               | 1           | 0.85           | MC-1000-1-XXX |
|                   | 2           | 1.68           | MC-1000-2-XXX |
|                   | 3           | 2.52           | MC-1000-3-XXX |
| 2KW               | 1           | 0.95           | MC-2000-1-XXX |
|                   | 2           | 1.89           | MC-2000-2-XXX |
|                   | 3           | 2.83           | MC-2000-3-XXX |
| 3KW               | 1           | 1.10           | MC-3000-1-XXX |
|                   | 2           | 2.19           | MC-3000-2-XXX |
|                   | 3           | 3.27           | MC-3000-3-XXX |

XXX = Length in feet

Specifications are nominal

Specifications and Pricing are subject to change