Hi-Flex Motor Power Cable

NEED CUSTOMS? See Page 25

- Ideal for Hi-Flex Servo Power Applications
- Rated for More Than 10 Million Flexing Cycles
- 4 Power Conductors in Shielded and Unshielded Versions

Cicoil's line of Hi-Flex Motor Cables provides the advantages of all Cicoil flexible flat 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. Shielded conductors add tinned copper braiding over PFA insulation. Cicoil's patented extrusion process encapsulates the wire conductors in a crystal clear, flexible, yet extremely durable insulation.



UL MEETS 94V-0 · RoHS COMPLIANT · REACH COMPLIANT · FAA FLAME TESTED

Applications
Linear, Servo and Stepper Motors, AC and Variable Frequency Drives

Cable

	Amp Rating[1]	Volts DC	Conductor Gauge	Dimensions [inches] Width	Height	Part Number
Non-Shielded	7	12,000	24 AWG	0.27	0.09	969M101-24-4-MC
	8	18,000	22 AWG	0.32	0.11	969M101-22-4-MC
	10	18,000	20 AWG	0.36	0.12	969M101-20-4-MC
	15	20,000	18 AWG	0.43	0.14	969M101-18-4-MC
	19	20,000	16 AWG	0.48	0.15	969M101-16-4-MC
	27	20,000	14 AWG	0.61	0.19	969M101-14-4-MC
	36	20,000	12 AWG	0.75	0.24	969M101-12-4-MC
	47	20,000	10 AWG	0.92	0.29	969M101-10-4-MC
	65	20,000	8 AWG	1.26	0.35	969M101-8-4-MC
	95	20,000	6 AWG	1.47	0.40	969M101-6-4-MC
	125	20,000	4 AWG	1.77	0.47	969M101-4-4-MC
Shielded	7	12,000	24 AWG	0.36	0.12	969M101-24-4-SMC
	8	18,000	22 AWG	0.41	0.13	969M101-22-4-SMC
	10	18,000	20 AWG	0.45	0.14	969M101-20-4-SMC
	15	20,000	18 AWG	0.52	0.16	969M101-18-4-SMC
	19	20,000	16 AWG	0.57	0.17	969M101-16-4-SMC
	27	20,000	14 AWG	0.70	0.21	969M101-14-4-SMC
	36	20,000	12 AWG	0.84	0.26	969M101-12-4-SMC
	47	20,000	10 AWG	1.01	0.31	969M101-10-4-SMC

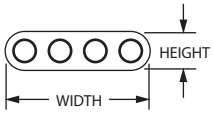
Notes

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

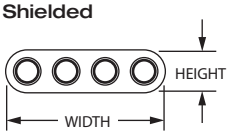
Wire Gauge	Power Connector (P1)
22-24	Tin Contacts - TE, P/N 770902-1; 9-Pos Housing - TE, P/N 172169-1
16-20	Tin Contacts - TE, P/N 171639-1; 9-Pos Housing - TE, P/N 172169-1
14	Gold Contacts - MOLEX, P/N 02-09-6110; 9-Pos Housing - MOLEX, P/N 3092092
4-10	Ring Lugs - Typical

Dimensions

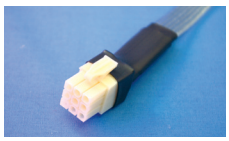
Non-Shielded



Shielded



Cable Assemblies



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: 969M101-24-4-MC-CA003
2. Connector ratings may differ from cable ratings; refer to manufacturer specifications.

Assembly Dimensions



Connectors

• See Table to the left

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)

Environmental

Temperature Rating: -65°C to +165°C
Moisture Rating: Submersible, Salt Water Resistant
Clean Room Rating: Class 1, Zero Particulates
Extreme Environments: Sunlight, UV Light, Alcohol, Chemical and Oil Resistant

Electrical

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

See Electrical Rating Chart on Page 47

Options

	Page
Additional Conductors	26
Low Friction Options	28
StripMount™ Integrated Mounting Strip	28
Integrated Tubing	29
SuperTuff™ Jacket	29
Colored Jacketing	29
Strip and Tin Cable Ends	29
FlexRail™ Self-Supporting Cable	30
Complete Assembly	31