



# SERIES 800 UN THREAD MATING Mighty Mouse Connectors and Cables



## Series 800 Mighty Mouse Overmolded Cordsets



High performance Mighty Mouse cordsets feature easy ordering and fast delivery. These fully shielded and watertight assemblies withstand abrasion, temperature extremes, and chemicals. Flexible overmolding provides rugged, watertight protection to wire and shield. Two styles are available: **Style 1** features low smoke, zero halogen polyamide overmold, and polyurethane cable jacket. **Style 2** features improved temperature operating range and highly flexible thermoplastic rubber overmold and cable jacket. Overmolded Mighty Mouse cordsets are suitable for military gear and other hostile environments where interconnect reliability and survivability is essential.

### Product Features

- Single-ended or double-ended
- Rugged, watertight construction
- 100% electrically tested
- Flexible to -55°C. (Style 2)
- Stainless steel shield termination band
- Resistant to chemicals
- Withstands UV and ozone

### High-Speed Cordsets

Controlled impedance twisted pair cordsets for Ethernet, USB, and other protocols are available. Please refer to Section M

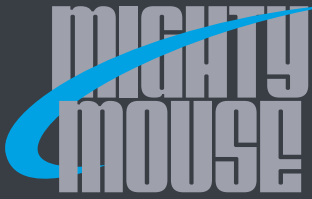
#### Harsh Environment Cordset Selection Guide

Property	Style 1 Polyurethane Jacket Polyamide Overmold	Style 2 Rubber Jacket Rubber Overmold
Cable jacket	Thermoplastic polyurethane (TPU), black	Thermoplastic elastomer (TPV), black
Overmold	Polyamide, black	Thermoplastic elastomer (TPV), black
Operating temperature	-30° C. to +105° C.	-55° C. to +135° C.
Flexibility	Good	Excellent
Water Resistance	Waterproof	Waterproof
Solvent Resistance, Cable Jacket	Excellent	Good
Solvent Resistance, Overmold	Fair <sup>(1)</sup>	Good
Weatherability	Excellent	Excellent
Abrasion Resistance	Excellent	Good
Flammability	Flame retardant UL 94 V-0	Flame retardant UL 94 HB
Low Smoke, Zero Halogen Cable Jacket	Yes	No

(1) Excellent resistance to most solvents, fuels, and oils; poor resistance to strong acids and bipolar solvents (alcohol)

#### Specifications

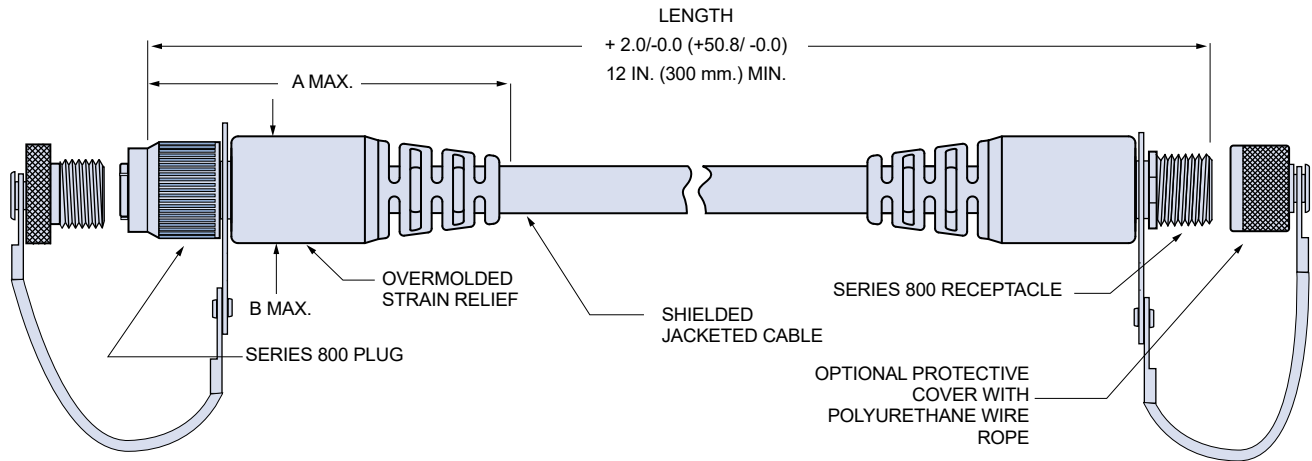
Cable jacket	Style 1: thermoplastic polyurethane, black, low-smoke, zero-halogen Style 2: thermoplastic elastomer, black
Overmold	Style 1: polyamide Style 2: thermoplastic elastomer, black
Cable shield	Tin-coated copper braid, 90% minimum coverage
Conductors	Silver coated stranded wire, TFE insulated, per M22759/11
Shield Termination	Band-Master™ ATS stainless steel shield termination band
Current rating	#23–5 amps, #20–7.5 amps, #16–13 amps, #12–23 amps
Test voltage (DWV)	#23–750 Vac, #20–1000 vac, #16 and #12–1800 VAC sea level
Insulation resistance	200 Megohms minimum
Shielding effectiveness	50 dB minimum from 100MHz to 1000MHz.



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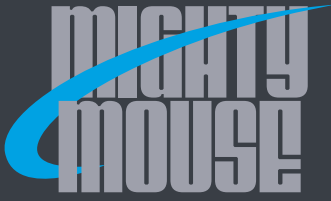
## Series 800 Mighty Mouse Overmolded Cordsets



Dimensions				
Shell Size	A Max.		B Max.	
	In.	mm.	In.	mm.
5	2.30	12.70	0.50	12.70
6	2.40	13.97	0.55	13.97
7	2.50	16.51	0.65	16.51
8	2.55	18.03	0.71	18.03
9	2.75	19.81	0.78	19.81
10	2.71	20.83	0.82	20.83
12	2.90	22.86	0.9	22.86

### NOTES

1. Double-ended cordsets are wired pin #1 to pin #1, #2 to #2, and so on.
2. Wires are silver-coated stranded copper with TFE insulation, 600V, in accordance with M22759/11.
3. Wire color is white.



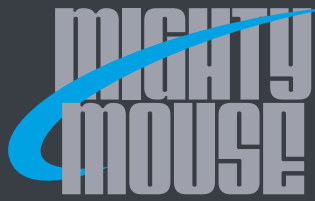
SERIES 800 UN THREAD MATING  
**Mighty Mouse Connectors and Cables**  
 Series 800 Mighty Mouse  
 Overmolded Cordsets



Series 800 Cordsets with #23 Contacts									
Sample Part Number									
800-034	-A	C	K	2	M	8-28	N	X	-36
Series	End A Connector	End B Connector	Plug Style	Wire Size	Shell Material/ Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
<b>800-034</b> <b>Style 1</b> Polyurethane Cable Jacket, Polyamide Overmold	<b>-A</b> Plug, with Male Pin Contacts	<b>A</b> Plug, with Male Pin Contacts	<b>K</b> Round Knurled Coupling Nut	<b>2</b> #22 AWG	<b>M</b> Aluminum / Electroless Nickel	See Cont. Arr. Page D-4	<b>P</b> Metal Protective Covers Included	<b>N</b> Normal	Overall Length In Inches 12 Inch Min.
<b>800-056</b> <b>Style 2</b> Rubber Cable Jacket and Rubber Overmold, #23 Contacts	<b>-B</b> Plug, with Female Socket Contacts	<b>B</b> Plug, with Female Socket Contacts	<b>KL</b> Round Knurled Coupling Nut, Self-Locking	<b>4</b> #24 AWG	<b>NF</b> Aluminum / Cadmium with OD Chromate	Consult Factory for Combo Arr.	<b>N</b> No Covers Supplied	<b>X</b> Pos. X <b>Y</b> Pos. Y <b>Z</b> Pos. Z	
	<b>-C</b> Receptacle, with Male Pin Contacts	<b>C</b> Receptacle, with Male Pin Contacts	<b>H</b> Hex Coupling Nut		<b>ZNU</b> Aluminum / Zinc-Nickel with Black Chromate			See page D-7	
	<b>-D</b> Receptacle, with Female Socket Contacts	<b>D</b> Receptacle, with Female Socket Contacts	<b>HL</b> Hex Coupling Nut, Self-Locking		<b>MT</b> Aluminum / Nickel-PTFE				
		<b>N</b> No Connector (Single-Ended)	<b>N</b> Receptacle Cable		<b>Z1</b> Stainless Steel / Passivated				

Series 800 Cordsets with #20HD Contacts									
Sample Part Number									
800-041	-A	C	K	0	M	8-28	N	X	-36
Series	End A Connector	End B Connector	Plug Style	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
<b>800-041</b> <b>Style 1</b> Polyurethane Cable Jacket, Polyamide Overmold, #20HD Contacts	<b>-A</b> Plug, with Male Pin Contacts	<b>A</b> Plug, with Male Pin Contacts	<b>K</b> Round Knurled Coupling Nut	<b>0</b> #20 AWG	<b>M</b> Aluminum / Electroless Nickel	See Cont. Arr. page D-4	<b>P</b> Metal Protective Covers Included	<b>N</b> Normal	Overall Length In Inches 12 Inch Min.
<b>800-057</b> <b>Style 2</b> Rubber Cable Jacket and Rubber Overmold,	<b>-B</b> Plug, with Female Socket Contacts	<b>B</b> Plug, with Female Socket Contacts	<b>KL</b> Round Knurled Coupling Nut, Self-Locking	<b>2</b> #22 AWG	<b>NF</b> Aluminum / Cadmium with OD Chromate	Consult Factory for Combo Arr.	<b>N</b> No Covers Supplied	<b>X</b> Pos. X <b>Y</b> Pos. Y <b>Z</b> Pos. Z	
	<b>-C</b> Receptacle, with Male Pin Contacts	<b>C</b> Receptacle, with Male Pin Contacts	<b>H</b> Hex Coupling Nut		<b>ZNU</b> Aluminum / Zinc-Nickel with Black Chromate			See page D-7	
	<b>-D</b> Receptacle, with Female Socket Contacts	<b>D</b> Receptacle, with Female Socket Contacts	<b>HL</b> Hex Coupling Nut, Self-Locking		<b>MT</b> Aluminum / Nickel-PTFE				
		<b>N</b> No Connector (Single-Ended)	<b>N</b> Receptacle Cable		<b>Z1</b> Stainless Steel / Passivated				

SERIES 800 UN THREAD MATING



# SERIES 800 UN THREAD MATING Mighty Mouse Connectors and Cables

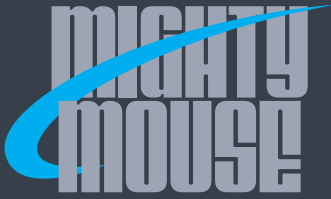


## Series 800 Mighty Mouse Overmolded Cordsets

Series 800 Cordsets with #16 Power Contacts									
Sample Part Number									
800-038	-A	C	K	6	M	8-2	N	X	-36
Series	End A Connector	End B Connector	Plug Style	Wire Size	Shell Material/ Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
<b>800-038</b> <b>Style 1</b> Polyurethane Cable Jacket, Polyamide Overmold, #16 Contacts	<b>-A</b> Plug, with Male Pin Contacts	<b>A</b> Plug, with Male Pin Contacts	<b>K</b> Round Knurled Coupling Nut	<b>6</b> #16 AWG	<b>M</b> Aluminum / Electroless Nickel	See Cont. Arr. Page D-4	<b>P</b> Metal Protective Covers Included	<b>N</b> Normal	Overall Length In Inches
<b>800-058</b> <b>Style 2</b> Rubber Cable Jacket and Rubber Overmold, #16 Contacts	<b>-B</b> Plug, with Female Socket Contacts	<b>B</b> Plug, with Female Socket Contacts	<b>KL</b> Round Knurled Coupling Nut, Self-Locking	<b>8</b> #18 AWG	<b>NF</b> Aluminum / Cadmium with OD Chromate	Consult Factory for Combo Arr.	<b>N</b> No Covers Supplied	<b>X</b> Pos. X <b>Y</b> Pos. Y <b>Z</b> Pos. Z	12 Inch Min.
	<b>-C</b> Receptacle, with Male Pin Contacts	<b>C</b> Receptacle, with Male Pin Contacts	<b>H</b> Hex Coupling Nut		<b>ZNU</b> Aluminum / Zinc-Nickel with Black Chromate			See page D-7	
	<b>-D</b> Receptacle, with Female Socket Contacts	<b>D</b> Receptacle, with Female Socket Contacts	<b>HL</b> Hex Coupling Nut, Self-Locking		<b>MT</b> Aluminum / Nickel-PTFE				
		<b>N</b> No Connector (Single-Ended)	<b>N</b> Receptacle Cable		<b>Z1</b> Stainless Steel / Passivated				

Series 800 Cordsets with #12 Power Contacts									
Sample Part Number									
800-039	-A	C	K	2	M	8-2	N	X	-36
Series	End A Connector	End B Connector	Plug Style	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
<b>800-039</b> <b>Style 1</b> Polyurethane Cable Jacket, Polyamide Overmold, #12 Contacts	<b>-A</b> Plug, with Male Pin Contacts	<b>A</b> Plug, with Male Pin Contacts	<b>K</b> Round Knurled Coupling Nut	<b>2</b> #12 AWG	<b>M</b> Aluminum / Electroless Nickel	See Cont. Arr. Page D-4	<b>P</b> Metal Protective Covers Included	<b>N</b> Normal	Overall Length In Inches
<b>800-059</b> <b>Style 2</b> Rubber Cable Jacket and Rubber Overmold, #12 Contacts	<b>-B</b> Plug, with Female Socket Contacts	<b>B</b> Plug, with Female Socket Contacts	<b>KL</b> Round Knurled Coupling Nut, Self-Locking	<b>4</b> #14 AWG	<b>NF</b> Aluminum / Cadmium with OD Chromate	Consult Factory for Combo Arr.	<b>N</b> No Covers Supplied	<b>X</b> Pos. X <b>Y</b> Pos. Y <b>Z</b> Pos. Z	12 Inch Min.
	<b>-C</b> Receptacle, with Male Pin Contacts	<b>C</b> Receptacle, with Male Pin Contacts	<b>H</b> Hex Coupling Nut		<b>ZNU</b> Aluminum / Zinc-Nickel with Black Chromate			See page D-7	
	<b>-D</b> Receptacle, with Female Socket Contacts	<b>D</b> Receptacle, with Female Socket Contacts	<b>HL</b> Hex Coupling Nut, Self-Locking		<b>MT</b> Aluminum / Nickel-PTFE				
		<b>N</b> No Connector (Single-Ended)	<b>N</b> Receptacle Cable		<b>Z1</b> Stainless Steel / Passivated				

SERIES 800 UN THREAD MATING



SERIES 800 UN THREAD MATING  
Mighty Mouse Connectors and Cables



Flexible, Lightweight Phantom Cable Cordsets



Phantom Cable cordsets feature high-flex rubber-insulated wires, lightweight shield, and overbraided jackets for maximum flexibility, reduced size and minimum weight. Flexible rubber overmold provides strain relief and environmental sealing. Available for all Mighty Mouse layouts with size #23 contacts, these cordsets are available with #24 through #28 AWG wire. EMI shield options include high-strength, ultralightweight **AmberStrand**, nickel-coated composite braid **ArmorLite** or lightweight, highly flexible tinned copper braid. Braid outer jackets are available with **NOMEX**, **HALAR**, or PTFE-coated fiberglass.

**Product Features**

- Overbraided cable jacket for excellent flexibility
- Ultra-lightweight AmberStrand® EMI shield
- 100% electrically tested
- Flexible to -55°C.
- Stainless steel shield termination band

**Application Note**

Overbraided textile jackets are ideal for applications where flexibility and weight are important. However, water can penetrate through the jacket and cable shield. Dust and contamination can also become entrapped in the braid. Braided jackets are prone to fraying damage caused by snagging on velcro closures and MOLLE vests. Extruded cable jackets are recommended if debris entrapment, moisture ingress, or fraying damage are concerns.

**Braid Shield Selection Guide**

Property	AmberStrand®	ArmorLite®	Copper
Type	nickel-coated high-strength super fiber	Micro-filament nickel-coated stainless steel	Tin-coated copper
Weight/ft. (0.5 in. ID)	3.7 grams	4.4 grams	22.3 grams
Operating Temp <sup>(1)</sup>	-65° C to +200° C	-80° C to +260° C	-80° C to +150° C
Coverage	90% min.	90% min.	90% min.
Flexibility	Excellent	Excellent	Good
Cost Comparison	\$\$\$	\$\$	\$

(1) Rubber wires and rubber overmold are rated for -55° C to +135° C.

**Jacket Selection Guide**

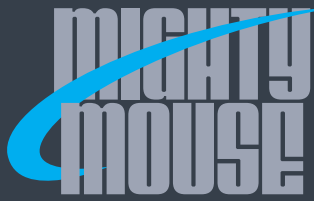
Property	NOMEX®	HALAR®	PTFE Coated Fiberglass
Color	Black or olive drab	Black	Tan
Operating Temp <sup>(1)</sup>	-55° C to +260° C	-73° C to +150° C	-75° C to +300° C
Chemical Resistance	Excellent	Excellent	Excellent
Flammability	Self-extinguishing, will not melt	Fire retardant UL VW-1	Self-extinguishing
Toxicity	Non-toxic	Non-toxic	Non-toxic
Flexibility	Excellent	Excellent	Excellent
Abrasion resistance	Excellent	Excellent	Excellent

(1) Rubber wires and rubber overmold are rated for -55° C to +135° C.

**Specifications**

Cable jacket	NOMEX®, HALAR® or PTFE-coated fiberglass
Temperature Range	-55° C to +135° C
Overmold	Thermoplastic elastomer, black
Cable shield	AmberStrand®, ArmorLite® or tinned copper, 90% minimum coverage
Conductors	Silver coated stranded wire, rubber insulation
Shield Termination	Band-Master™ ATS stainless steel shield termination band
Current rating	5 amps
Test voltage (DWV)	500 Vac
Insulation resistance	200 Megohms minimum
Shielding effectiveness	50 dB minimum from 100MHz to 1000MHz.

SERIES 800 UN THREAD MATING



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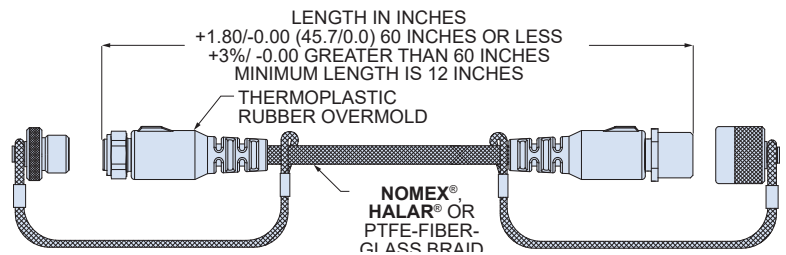
## Flexible, Lightweight Phantom Cable Cordsets



Series 800 "Phantom Cable" Cordsets size #12 thru #23 Contacts										
Sample Part Number										
800-053	-B	N	0	Z1	5-3	N	X	-60	C	N
Series	End A Connector	End B Connector	Wire Size	Shell Material/Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length	Shield Option	Jacket Option
<b>Size #23 Contacts</b> 800-052 Phantom Cable Cordset	<b>-A</b> Plug, with Male Pin Contacts	<b>A</b> Plug, with Male Pin Contacts	<b>Size #23 Contacts</b> 2 #22 AWG 4 #24 AWG	<b>M</b> Aluminum / Electroless Nickel	See Cont. Arr. Page D-4	<b>P</b> Metal Protective Covers Included	<b>N</b> Normal <b>X</b> Pos. X	Overall Length In 12 Inch Min.	<b>A</b> AmberStrand <b>B</b> ArmorLite	<b>N</b> Nomex <b>H</b> Halar (Monofil)
<b>Size #20 HD Contacts</b> 800-053 Phantom Cable Cordset	<b>-B</b> Plug, with Female Socket Contacts	<b>B</b> Plug, with Female Socket Contacts	<b>Size #20 HD Contacts</b> 0 #20 AWG 2 #22 AWG	<b>NF</b> Aluminum / Cadmium with OD Chromate	Consult Factory for Combo Arr.	<b>N</b> No Covers Supplied	<b>Y</b> Pos. Y <b>Z</b> Pos. Z  See Table II		<b>C</b> Tin-Coated Copper	<b>P</b> Peek (Monofil)
<b>Size #16 Contacts</b> 800-054 Phantom Cable Cordset	<b>-C</b> Rec. with Male Pin Contacts	<b>C</b> Rec. with Male Pin Contacts	<b>Size #16 Contacts</b> 6 #16 AWG 8 #18 AWG	<b>ZNU</b> Aluminum / Zinc-Nickel with Black Chromate						
<b>Size #12 Contacts</b> 800-055 Phantom Cable Cordset	<b>-D</b> Rec. with Female Socket Contacts	<b>D</b> Rec. with Female Socket Contacts  <b>N</b> No Connector (Single-Ended)	<b>Size #12 Contacts</b> 2 #12 AWG 4 #14 AWG	<b>MT</b> Aluminum / Nickel-PTFE  <b>Z1</b> Stainless Steel / Passivated						

**Table II: Shell Key Positions (See Note 1 and 2)**

Shell Size 5 and 6	Shell Size 7 thru 12
Key Position	Key Rotation
<b>N</b> Normal	150°
<b>X</b>	140°
<b>Y</b>	130°
<b>Z</b>	120°



### NOTES

- Shell sizes 5 thru 6: master key is located at top dead center (TDC) for normal (N) position.
- Shell size 7 thru 12: master key is rotated 90° from TDC for normal position Double-ended cordsets are wired pin #1 to pin #1, #2 to #2, and so on.
- Wires are silver-coated stranded copper with TPE insulation, 600V, UL VW-1 rated.
- Wires are white with color stripe per MIL-STD-681. Wire #1 is WHT/BLK, wire #2 is WHT/BRN, etc.

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