

Integrated BackShell Connectors

Winchester Interconnect Micro offers Nano Wired Integrated Backshell Connectors, engineered to deliver compact, high-performance EMI protection for next-generation cable assemblies. Designed around the M32139 and M83513 interfaces, these connectors integrate the backshell into the connector body, minimizing overall height and width while reducing component count and cost. Ideal for space-constrained or complex harness applications, they provide 360° EMI shielding and enhanced cable strength without traditional clamps. Available with multiple braiding options, exit angles, and custom configurations for versatile system integration.



KEY FEATURES & BENEFITS

- Integrated Backshell Design – Minimizes size and eliminates the need for separate backshell components, reducing BOM complexity and cost.
- Compact Profile – Integrated structure reduces overall connector height and width for space-limited applications.
- Full 360° EMI Protection – Ensures complete shielding against electromagnetic interference for signal integrity.
- Enhanced Cable Strength – Provides mechanical reinforcement without requiring traditional band-style clamps.
- Flexible Braiding Options – Available with inner/outer metal or non-metallic braids for customized EMI and abrasion protection.
- Durable Construction – Metal braided sleeving in tinned or silver-plated copper per A-A-59551; non-metallic braids use Denier Fiber per MIL-C-572.
- Versatile Configurations – Offered for both Nano-D and Micro-D connector lines with multiple cable exit angles and custom harness solutions.

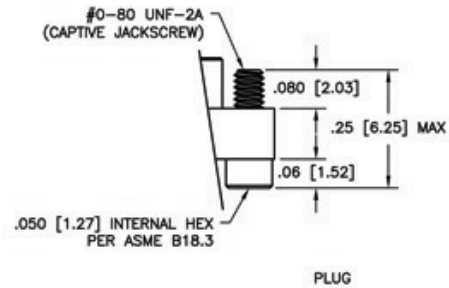
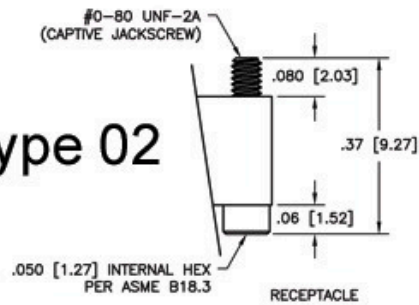
PERFORMANCE

Electrical Properties	
Contact Resistance	33 milliohm max contact only and 87 milliohms max with 6" wire @ 1A
Current Rating	1A max.
Dielectric WithStanding Voltage	250 VAC at sea level, 100 VAC at 70,000 feet. 1mA leakage current max.
Insulation Resistance	100 VDC and 5000 Megohms min.

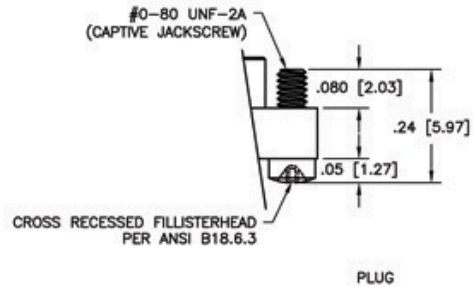
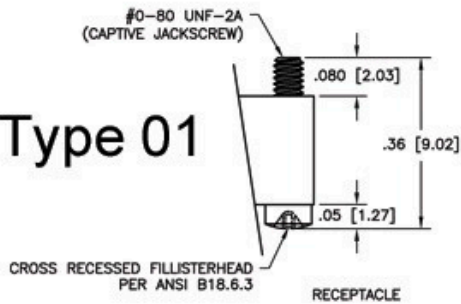
Mechanical	
Engaging Force	5 oz max.
Separation Force	.4 oz min.
Mating/Unmating Force	7 oz x # of contacts max.
Vibration	EIA-364-28 Condition IV, 1 microsecond max discontinuity
Shock	EIA-364-27 Condition G, 1 microsecond max discontinuity
Durability	EIA-364-09, 200 matings, passes Mating Force, CR, Eng and Sep Forces
Salt Spray	EIA 364-26 Condition B-48 hours

HARDWARE

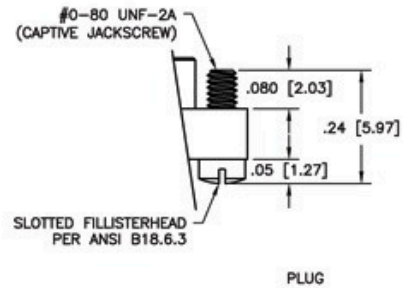
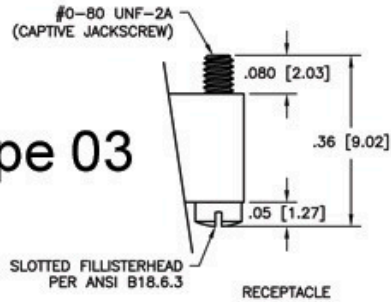
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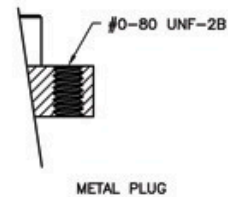
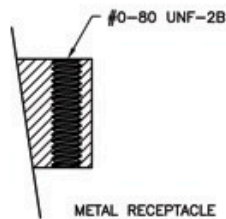
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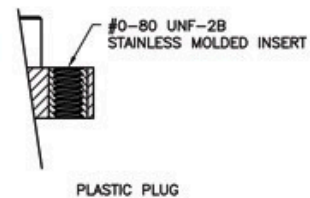
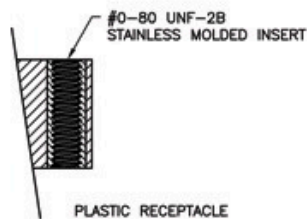
Type 03



Type 07



Type 07

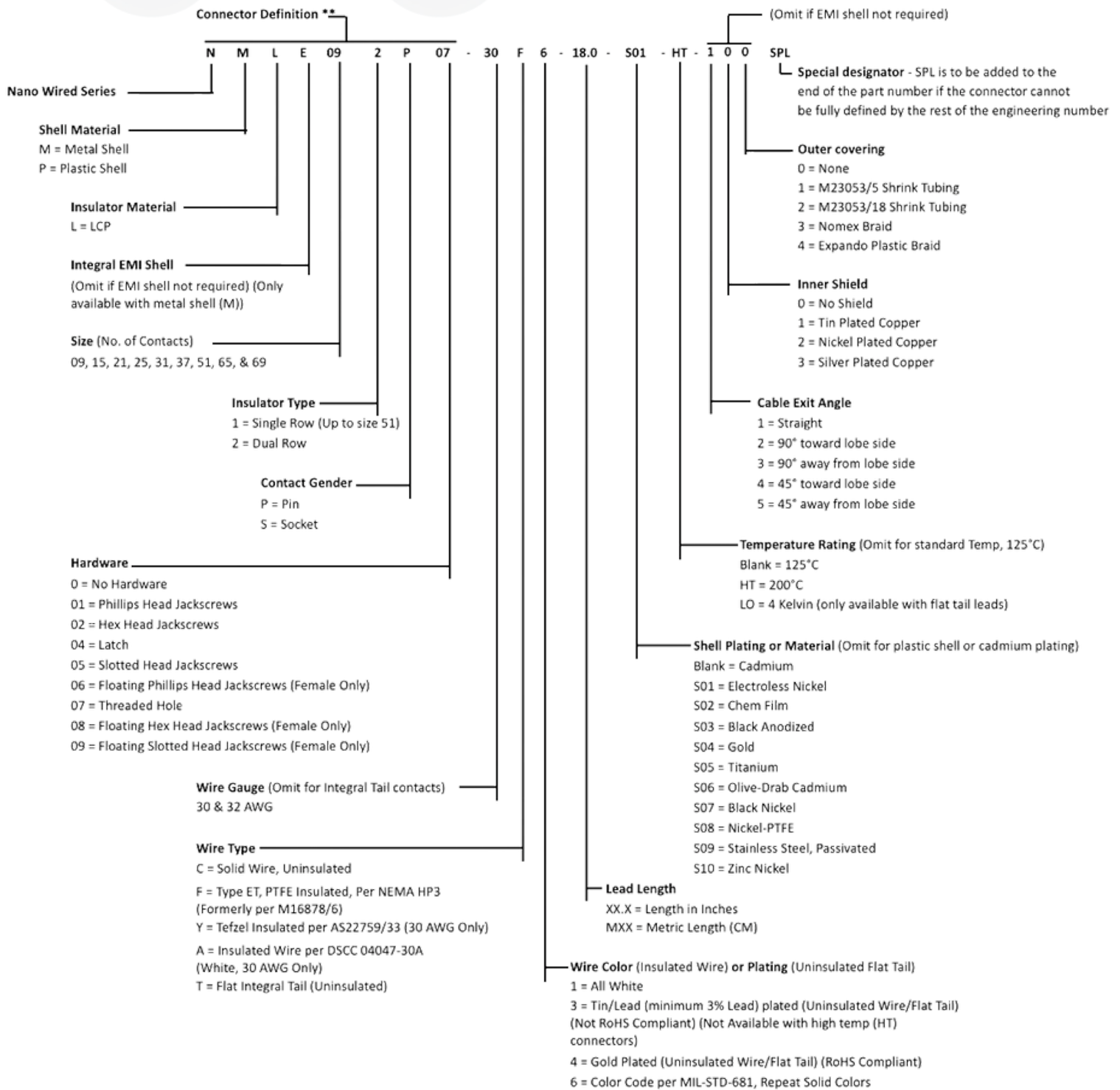


MATERIALS

Materials and Finishes	
Signal Pin Contacts	C17200 Beryllium Copper per ASTM B194
Signal Socket Contacts	C26000 Brass Alloy per ASTM B135
Contact Plating	Gold Plating per ASTM B488
Shell	6061-T6 Aluminum per SAE-AMS-QQ-A200/8 or 300 Series Stainless Steel per ASTM A582
Shell Plating	Electroless Nickel per SAE-AMS2404, or Cadmium per SAE-AMS-QQ-P-416 or Black Anodize per MIL-A-8625 or Passivated per AMS2700
Insulator Material	LCP(Liquid Crystal Polymer) GLCP-30F or PPS per MIL-M-24519 GST-40F
Hardware	300 Series Stainless Steel per ASTM A 582/A582 or ASTM A 581/A581M, Passivated per SAE AMS-2700

Nano Wired Integrated BackShell

HOW TO ORDER



** For double ended assemblies, include connector definition for both ends separated by a forward slash (/)
Excludes Integral Shell assemblies ("E" option)