

Wired Standard Profile Metal Shell Connectors

Winchester Interconnect's Ulti-Mate Standard Profile Metal Shell Connectors with wire leads are environmentally sealed and military-compliant connectors that meet MIL-DTL-83513. They are available in 9–100 contacts, rated to -55°C to 125°C (higher-temperature "HT" versions also available), and are rated to carry 3A. They offer low contact resistance, high insulation resistance, and dependable performance from sea level to 70,000 feet.

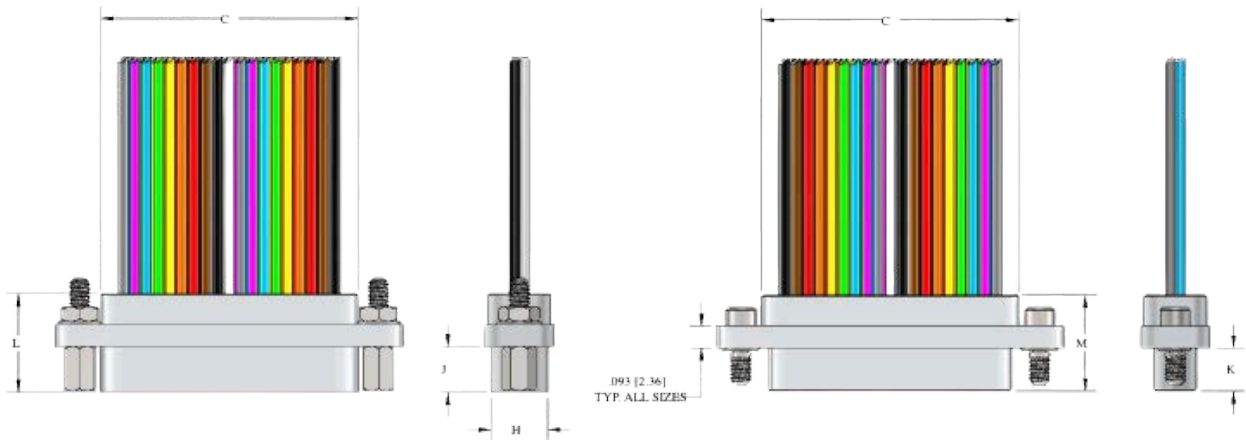


KEY FEATURES & BENEFITS

- Sealed for Harsh Environments – Reliable performance in moisture, dust, and vibration.
- Wide Temp Range – Operates from -55°C to $+125^{\circ}\text{C}$; HT versions for extreme heat.
- MIL-DTL-83513 Qualified – Built to strict military standards for proven reliability.
- Flexible Contact Options – 9–100 contacts for design versatility.
- Strong Electrical Performance – Up to 3A, 600 VAC, and $\geq 5000\text{ M}\Omega$ insulation resistance.
- Durable Metal Shell – Offers excellent shielding and mechanical strength.
- Compact, Lightweight Design – Ideal for high-density electronic systems.
- Broad Application Use – Suited for aerospace, defense, and industrial equipment.
- Custom Configurations – Wire leads and finishes available to spec.

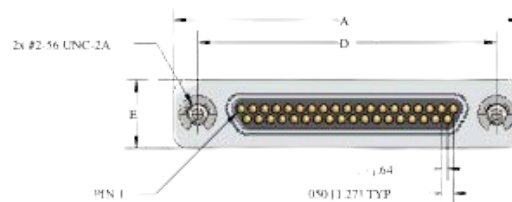
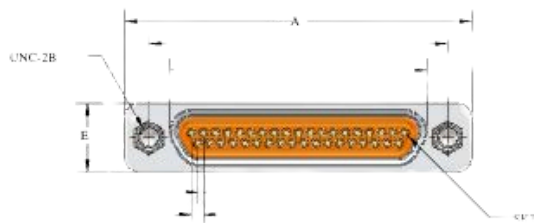
Micro-D Wired SPMS

2D DIMENSIONAL DATA



RECEPTACLE (SOCKETS)

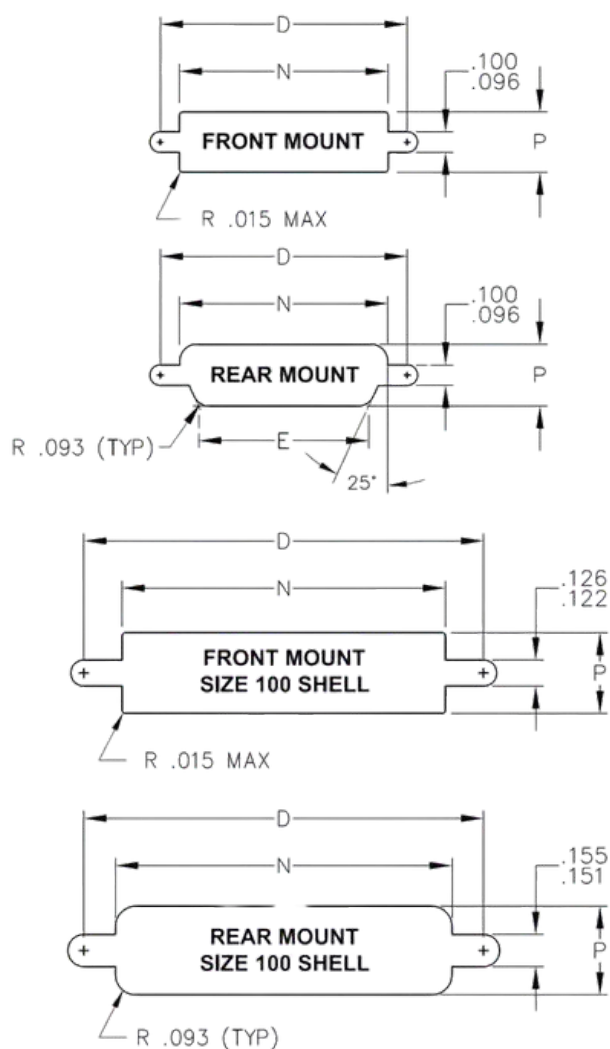
PLUG (PINS)



Size	A Max.	B Max.	C Max.	D Nom.	H Max.	E Max.	J Max. (Skt)	K Max. (Pin)	L Max. (Skt)	M Max. (Pin)
	ALL	M & B series								
9	.785 (19.94)	.402 (10.21)	.390 (9.98)	.565 (14.35)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
15	.935 (23.75)	.552 (14.02)	.540 (13.79)	.715 (18.16)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
21	1.085 (27.56)	.702 (17.83)	.690 (17.60)	.865 (21.47)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
25	1.185 (30.10)	.802 (20.37)	.790 (20.14)	.965 (24.51)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
31	1.335 (33.91)	.952 (24.18)	.940 (23.95)	1.115 (28.32)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
37	1.485 (37.72)	1.102 (27.99)	1.090 (27.76)	1.265 (32.13)	.248 (6.30)	.308 (7.83)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
51	1.435 (36.45)	1.054 (26.77)	1.040 (26.44)	1.215 (30.86)	.297 (7.54)	.351 (8.92)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)
100	2.165 (54.99)	1.505 (38.23)	1.432 (36.63)	1.800 (45.72)	.394 (10.00)	.394 (10.00)	.199 (5.05)	.187 (4.75)	.429 (10.90)	.416 (10.57)

PANEL CUT-OUT DIMENSIONS

		N		P	
Size	D	Front Mount	Rear Mount	Front Mount	Rear Mount
9	.565	.400	.405	.280	.265
15	.715	.550	.555	.280	.265
21	.865	.700	.705	.280	.265
25	.965	.800	.805	.280	.265
31	1.115	.950	.955	.280	.265
37	1.265	1.100	1.105	.280	.265
51-3	1.215	1.046	1.057	.320	.305
100	1.800	1.445	1.506	.402	.402

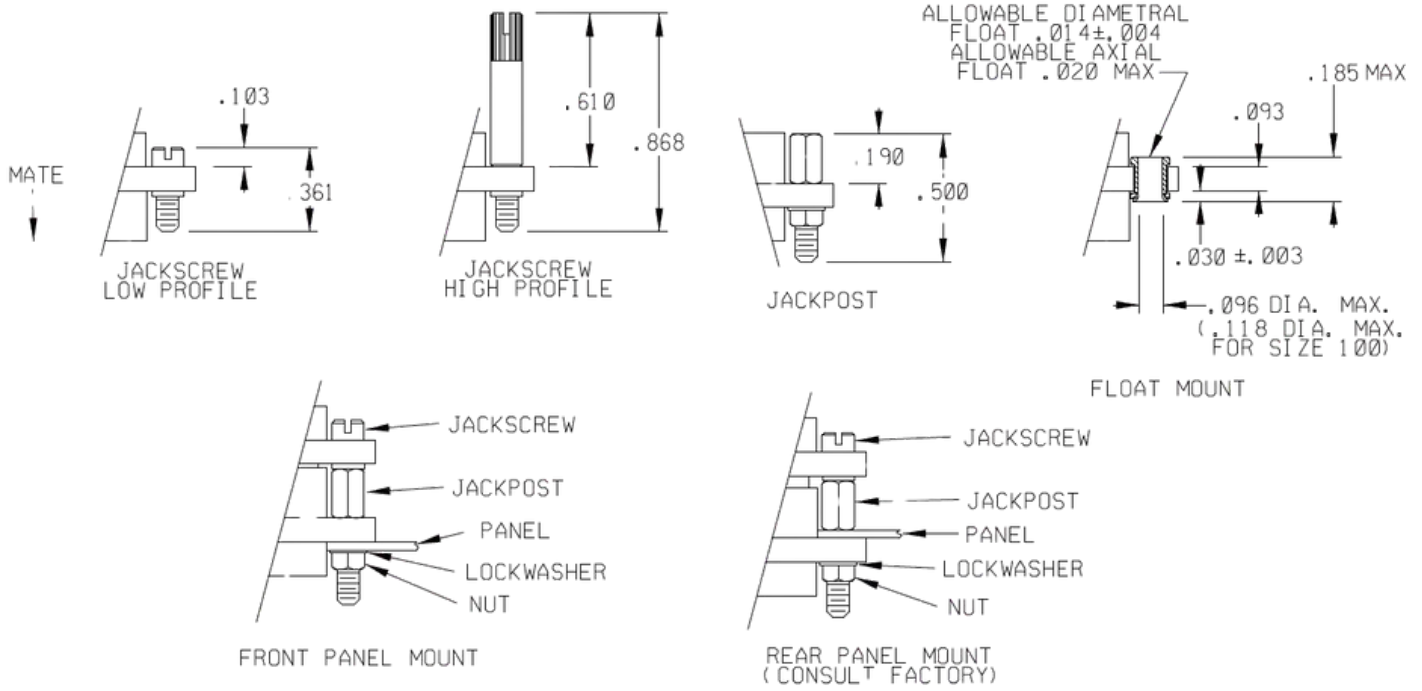


PERFORMANCE DATA

Electrical Properties	
Contact Resistance	8 milliohm max contact only and 32 milliohms max with 6" wire @ 2.5A at room temperature
Current Rating	3A max. at room temperature
Dielectric WithStanding Voltage	600 VAC at sea level, 150 VAC at 70,000 feet. 1mA leakage current max. at room temperature
Insulation Resistance	500 VDC and 5000 Megohms min. at room temperature

MEchanical Properties	
Engaging Force	6 oz max. at room temperature
Separation Force	.5 oz min. at room temperature
Mating/Unmating Force	10 oz x # of contacts max.at room temperature
Vibration	EIA-364-28 Condition IV, 1 microsecond max discontinuity at room temperature
Shock	EIA-364-27 Condition E, 1 microsecond max discontinuity at room temperature
Durability	500 matings, passes Mating Force, CR, Eng and Sep Forces at room temperature
Salt Spray	EIA 364-26 Condition B-48 hours at room temperature

HARDWARE



Description	Thread	Used on Sizes	Used On Styles
Jackscrew Lo Allen	2-56 UNC-2A	9 through 51	16,17,18,19
Jackscrew hi Allen	2-56 UNC-2A	9 through 51	16,17,18,19
Jackscrew Lo Slot	2-56 UNC-2A	9 through 51	16,17,18,19
Jackscrew hi Slot	2-56 UNC-2A	9 through 51	16,17,18,19
Jackpost	2-56 UNC-2B	9 through 51	All Styles
Jackscrew Lo Allen	4-40 UNC-2A	100	16,17,18,19
Jackscrew hi Allen	4-40 UNC-2A	100	16,17,18,19

Download the 3D Model



MATERIALS & FINISHES

Description	Thread
Signal Pin Contacts	C17200 Beryllium Copper per ASTM B194
Signal Socket Contacts	C21000 Brass Alloy per ASTM B36
Contact Plating	.000050 Thk Gold Plating per ASTM B488
Shell	6061-T6 Aluminum per SAE-AMS-QQ-A200/8 or Passivated 300 Series Stainless Steel
Shell Plating	Electroless Nickel per AMS 2404 or Cadmium Plated per SAE-AMS-QQ-P-416
Insulator Material	Polyphenylene Sulfide (PPS) Per MIL-M-24519 GST-40F
Hardware	Passivated Stainless Steel Per MIL-DTL-83513/05
Interfacial Seals	Fluorosilicone per MIL-R-25988 Std Profile Receptacles only)
Signal Pin Contacts	C17200 Beryllium Copper per ASTM B194
Signal Socket Contacts	C21000 Brass Alloy per ASTM B36

HOW TO ORDER

MR	51-3	P	Ø2 –	26	E	6 –	18.Ø –	SØ1
Series	Contacts	Contact Gender	Hardware (See below)	Wire Gauge	Wire Type	Wire Color	Length	Finish
M=Metal R=PPS	Ø9	P=Male/Pin (Plug Side)	Ø = No Hardware	24	E = Stranded w/Teflon Insulation, per NEMA HP3-E	1 = White	18.Ø	SØ1= Nickel
	15	S=Female/Socket (Receptacle Side)	Ø5 (15 for Size 1ØØ) = Low Profile Slotted Head Jackscrew	26	M = Stranded, w/Teflon Insulation, per SAE-AS22759/11	5 = Color Code per MIL-STD-681 (Non-Repeating Colors)	36.Ø	Blank = Cadmium
	21		Ø6 (16 for Size 1ØØ) = High Profile Slotted Head Jackscrew	28	Y = Stranded w/ Tefzel Insulation, per SAE-AS22759/33	6 = Color Code per MIL-STD-681 (Repeating Solid Colors)	72.Ø	SØ9 = Stainless Steel
	25		Ø7 (17 for Size 1ØØ) = Jackpost	3Ø	C =Solid Wire, Uninsulated	3 = Pure Tin plated (Solid Wire)		
	31		Ø2 (12 for Size 1ØØ) = Low Profile Allen Head Jackscrew		F =Stranded, w/Teflon Insulation, per NEMA HP3-ET	L = Tin/Lead (minimum 3% Lead) plated		
	37		Ø3 (13 for Size 1ØØ) = High Profile Allen Head Jackscrew			2 = Yellow		
	51-3					4 = Gold plated (Solid Wire)		
	1ØØ							

Ø2 (12 for Size 1ØØ)	Ø3 (13 for Size 1ØØ)	Ø5 (15 for Size 1ØØ)	Ø6 (16 for Size 1ØØ)	Ø7 (17 for Size 1ØØ)
				
Low Profile Allen Head Jackscrew	High Profile Allen Head Jackscrew	Low Profile Slotted Head Jackscrew	High Profile Slotted Head Jackscrew	Jackpost