

SERIES 89 NANOMINIATURE Dual-Row Rectangular Connectors



891-054 Rear Panel Mount, Gasket-Sealed Connector with Insulated Wire and Backshell

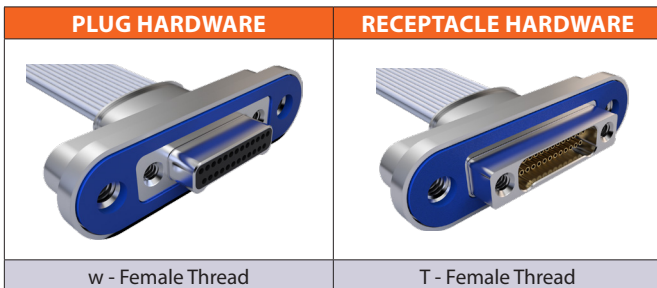
DUAL-ROW RECTANGULAR CONNECTORS



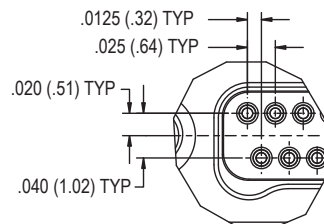
Rear Panel Mount Nano Connectors with Insulated Wire feature gold alloy TwistPin contacts. Contacts are precision-crimped to insulated, stranded wire. These nanominiature connectors offer premium performance and reliability for demanding applications. Contact spacing is .025 inches. 1 amp current rating DWV rating 250 volts AC.

Gasket Seals are available in fluorosilicone, passivated silver plated aluminum filled fluorosilicone or nickel plated aluminum filled fluorosilicone. For replacement gaskets, see 899-015.

HOW TO ORDER	
Sample Part Number	891-054 -25 P S N -0 B 7 -12 T -01 M -C
Series	891-054 = Prewired RPM, Gasket-Sealed Connector
Insert Arrangement	9, 15, 21, 25, 31, 37, 41, 51, 65, 69, 85, 91
Contact Type	P = Plug (pins); S = Receptacle (Sockets)
Shell / Backshell Material / Finish	S = Stainless Steel, Passivated T = Titanium, Unplated
Backshell Orientation	N = Straight, no orientation H = 45°, lobe side exit L = 90°, lobe side ext K = 45°, major side exit M = 90°, major side exit
Wire Gage	0 = #30 AWG (Wire types A, B, C, E, and F) 2 = #32 AWG (Wire Type B Only)
Wire Type	A = Ultra Lightweight XLETFE Insulation, Silver Coated Ultra High Strength Copper. B = Extruded PTFE Insulation, Silver Coated Copper NEMA HP3-ETX (MIL-W-16878/6) C = Cross Linked Modified ETFE Insulation, Silver Coated High Strength Copper. SAE AS22759/33 E = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, SC High Strength Copper Alloy. SAE AS22759/51 F = Cross Linked Modified ETFE Insulation, Low Fluoride, Lightweight, SC Copper, SAE AS22759/52
Wire Color Code	1 = White 2 = Yellow 7 = 10 Color Repeating (Wire Type A is striped, Types B, C, E, and F are solid colors)
Wire Length	12 = 12.00 inches; as required in one inch increments.
Hardware Option	T = Female Threads (#0-80 for size 9-69, #2-56 for size 85 & 91)
Gasket Material	Omit for no gasket 01 = Fluorosilicone IAW MIL-DTL-25988 Type II, Class I, Grade 60 02 = Passivated Silver Plated Aluminum Filled Fluorosilicone IAW MIL-DTL-83528, Type "D" (Cho-seal 1298 or Equivalent) 03 = Nickel Plated, Aluminum Filled Fluorosilicone (Cho-Seal 6503 or Equivalent)
Mounting Thread	Omit for #2-56 UNC-2B M = M2X0.4 6H
Shield / Jacket	N, A, C, D, S, T, V, W, X, Z; see shield / jacket options table



DETAIL A



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SHIELD / JACKET OPTIONS TABLE

Code	Description	Code	Description
N	No shield, no jacket	T	100% braided Ambstrand shield installed, with E-CTFE Halar "Expando" jacket (+150° C)
A	Braided shield installed (nickel plated copper)	V	75% braided microfilament stainless steel shield installed
C	Braided shield installed (nickel plated copper), with E-CTFE Halar "Expando" jacket (+150° C)	W	Aarmorlite braided microfilament stainless steel shield installed
D	No shield, with E-CTFE Halar "Expando" jacket (+150°C)	X	Aarmorlite braided microfilament stainless steel shield installed with E-CTFE Halar "Expando" jacket (+150° C)
S	100% braided Amberstrand shield installed	Z	75% braided amberstrand shield installed, with E-CTFE Halar "Expando" jacket (+150° C)

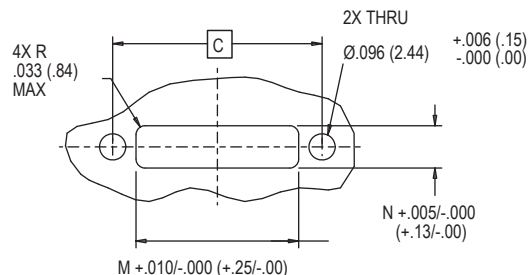
PERFORMANCE SPECIFICATIONS

Contact Spacing: .025" (0.64) contact centers Wire Accommodation: #30-#32 AWG Current Rating: 1 AMP maximum tested per EIA-364-70 DWV: 250 VAC RMS sea level, 100 VAC RMS 70,000 feet per EIA-364 Procedure 20 Insulation Resistance: 5000 Megohms minimum test voltage 100 VDC, per EIA-364 Procedure 21	Operating Temperature: -55° C. to +125° C. Contact Resistance: 71 millivolt drop maximum, 1 AMP current, any catalog supported wire type Vibration: 20 g's, IAW EIA-364-28, Condition IV Shock: 100 g's, IAW EIA-364-27, Condition G Durability: 200 mating cycles per test procedure EIA-364-09	Corrosion Resistance: 48 hours salt spray IAW EIA-364-26, Condition B Humidity: 240 hours, IAW EIA-364-31, Test Condition B Contact Engaging/Separation Force: 5 ounce maximum, 0.4 ounce minimum Thermal Vacuum Outgassing: Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW ASTM E595
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NOTES

- Material / Finishes:
 - Shell: see part number break down
 - Insulator: LCP/N/A
 - Contacts: gold alloy / unplated
 - Wire: see part number break down
 - Gasket: see part number break down
 - Band clamp: (shield termination when applicable) stainless steel.
- Inspect and test IAW MIL-DTL-32139
- Interface dimensions per MIL-DTL-32139/9 and MIL-DTL-32139/10
- Panel cutout is sized to allow connector mounting with either lobes up or down orientation.
- Recommended panel thickness .100 max
- Backshell to shell connection via conductive epoxy, filled with Hysol EE4215/HD3561 encapsulant.
- See 899-015 for replacement gaskets

PANEL MOUNT DIMENSIONS



PANEL MOUNT DIMENSIONS

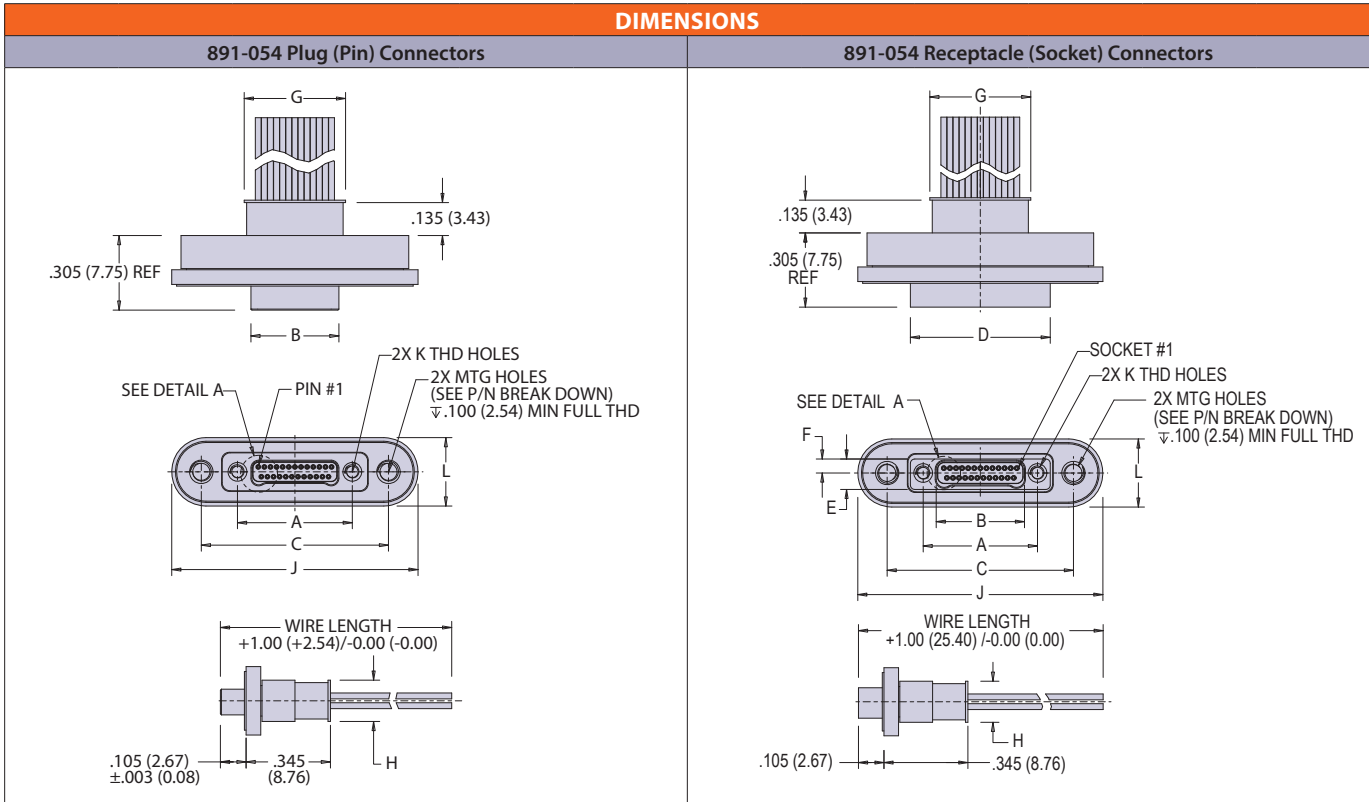
Shell Size	C	M	N
SIZE-9	.566 (14.38)	.395 (10.03)	.155 (3.94)
SIZE-15	.641 (16.28)	.470 (11.94)	.155 (3.94)
SIZE-21	.716 (18.19)	.545 (13.84)	.155 (3.94)
SIZE-25	.766 (19.46)	.595 (15.11)	.155 (3.94)
SIZE-31	.841 (21.36)	.670 (17.02)	.155 (3.94)
SIZE-37	.916 (23.27)	.745 (18.92)	.155 (3.94)
SIZE-41	.966 (24.54)	.795 (20.19)	.155 (3.94)
SIZE-51	1.091 (27.71)	.920 (23.37)	.155 (3.94)
SIZE-65	1.266 (32.16)	1.095 (27.81)	.155 (3.94)
SIZE-69	1.316 (33.43)	1.145 (29.08)	.155 (3.94)
SIZE-85	1.568 (39.83)	1.397 (35.48)	.180 (4.57)
SIZE-91	1.643 (41.73)	1.472 (37.39)	.180 (4.57)

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DUAL-ROW RECTANGULAR CONNECTORS



Layout	A BSC.	B BSC.	C BSC.	D	E	F	G	H	J	K	L
9P	.270 (6.86)	.160 (4.06)	.566 (14.38)	--	--	--	.215 (5.46)	.169 (4.29)	.808 (20.52)	#0-80 UNF-2B	.280 (7.11)
9S	.270 (6.86)	.163 (4.14)	.566 (14.38)	.375 (9.53)	.125 (3.18)	.0575 (1.46)	.215 (5.46)	.169 (4.29)	.808 (20.52)		.280 (7.11)
15P	.345 (8.76)	.235 (5.97)	.641 (16.28)	--	--	--	.290 (7.37)	.169 (4.29)	.883 (22.43)		.280 (7.11)
15S	.345 (8.76)	.238 (6.05)	.641 (16.28)	.450 (11.43)	.125 (3.18)	.0575 (1.46)	.290 (7.37)	.169 (4.29)	.883 (22.43)		.280 (7.11)
21P	.420 (10.67)	.310 (7.87)	.716 (18.19)	--	--	--	.365 (9.27)	.169 (4.29)	.958 (24.33)		.280 (7.11)
21S	.420 (10.67)	.313 (7.95)	.716 (18.19)	.525 (13.34)	.125 (3.18)	.0575 (1.46)	.365 (9.27)	.169 (4.29)	.958 (24.33)		.280 (7.11)
25P	.470 (11.94)	.360 (9.14)	.766 (19.46)	--	--	--	.415 (10.54)	.169 (4.29)	1.008 (25.60)		.280 (7.11)
25S	.470 (11.94)	.363 (9.22)	.766 (19.46)	.575 (14.61)	.125 (3.18)	.0575 (1.46)	.415 (10.54)	.169 (4.29)	1.008 (25.60)		.280 (7.11)
31P	.545 (13.84)	.435 (11.05)	.841 (21.36)	--	--	--	.490 (12.45)	.169 (4.29)	1.083 (27.51)		.280 (7.11)
31S	.545 (13.84)	.438 (11.13)	.841 (21.36)	.650 (16.51)	.125 (3.18)	.0575 (1.46)	.490 (12.45)	.169 (4.29)	1.083 (27.51)		.280 (7.11)
37P	.620 (15.75)	.510 (12.95)	.916 (23.27)	--	--	--	.565 (14.35)	.169 (4.29)	1.158 (29.41)		.280 (7.11)
37S	.620 (15.75)	.513 (13.03)	.916 (23.27)	.725 (18.42)	.125 (3.18)	.0575 (1.46)	.565 (14.35)	.169 (4.29)	1.158 (29.41)		.280 (7.11)
41P	.670 (17.02)	.560 (14.22)	.966 (24.54)	--	--	--	.615 (15.62)	.169 (4.29)	1.208 (30.68)		.280 (7.11)
41S	.670 (17.02)	.563 (14.30)	.966 (24.54)	.775 (19.69)	.125 (3.18)	.0575 (1.46)	.615 (15.62)	.169 (4.29)	1.208 (30.68)		.280 (7.11)
51P	.795 (20.19)	.685 (17.40)	1.091 (27.71)	--	--	--	.740 (18.80)	.169 (4.29)	1.333 (33.86)		.280 (7.11)
51S	.795 (20.19)	.688 (17.48)	1.091 (27.71)	.900 (22.86)	.125 (3.18)	.0575 (1.46)	.740 (18.80)	.169 (4.29)	1.333 (33.86)		.280 (7.11)
65P	.970 (24.64)	.860 (21.84)	1.266 (32.16)	--	--	--	.915 (23.24)	.169 (4.29)	1.508 (38.30)		.280 (7.11)
65S	.970 (24.64)	.863 (21.92)	1.266 (32.16)	1.075 (27.30)	.125 (3.18)	.0575 (1.46)	.915 (23.24)	.169 (4.29)	1.508 (38.30)		.280 (7.11)
69P	1.020 (25.91)	.910 (23.11)	1.316 (33.43)	--	--	--	.965 (24.51)	.169 (4.29)	1.558 (39.57)		.280 (7.11)
69S	1.020 (25.91)	.913 (23.19)	1.316 (33.43)	1.125 (28.58)	.125 (3.18)	.0575 (1.46)	.965 (24.51)	.169 (4.29)	1.558 (39.57)		.280 (7.11)
85P	1.246 (31.65)	1.110 (28.19)	1.568 (39.83)	--	--	--	1.165 (29.59)	.194 (4.93)	1.810 (45.97)	.305 (7.75)	
85S	1.246 (31.65)	1.113 (28.27)	1.568 (39.83)	1.377 (34.98)	.150 (3.81)	.0700 (1.78)	1.165 (29.59)	.194 (4.93)	1.810 (45.97)	.305 (7.75)	
91P	1.321 (33.55)	1.185 (30.10)	1.643 (41.73)	--	--	--	1.240 (31.50)	.194 (4.93)	1.885 (47.88)	.305 (7.75)	
91S	1.321 (33.55)	1.188 (30.18)	1.643 (41.73)	1.452 (36.88)	.150 (3.81)	.0700 (1.78)	1.240 (31.50)	.194 (4.93)	1.885 (47.88)	.305 (7.75)	

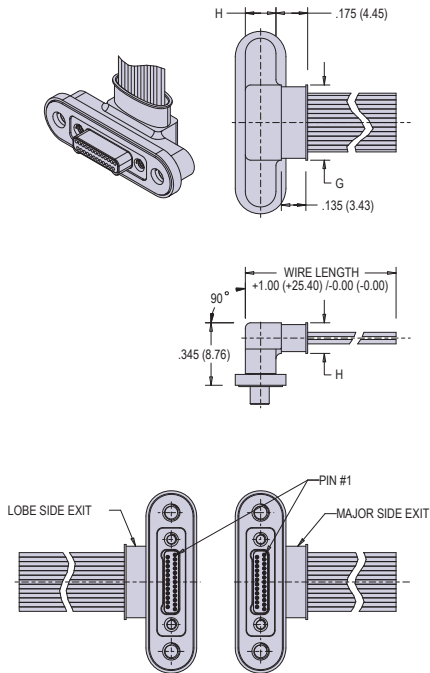
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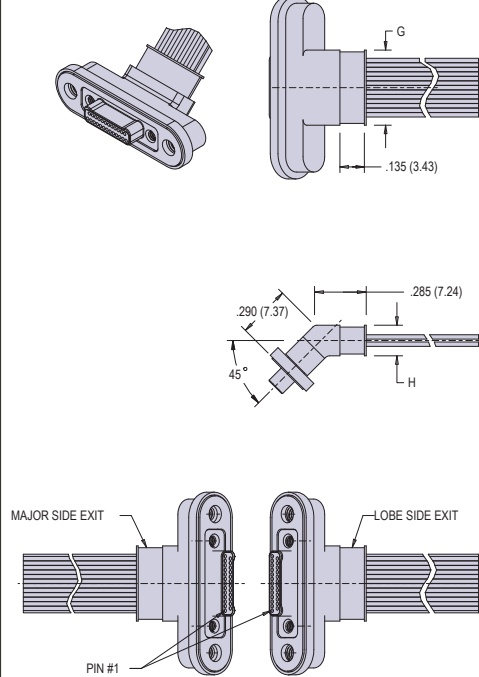
891-054 Rear Panel Mount, Gasket-Sealed Connector with Insulated Wire and Backshell

PLUG 90° AND 45° BACKSHELL DIMENSIONS

PLUG, 90° BACKSHELL, FLYING LEAD
EXAMPLE P/N: 891-054-25PSM-0B7-12T-01N

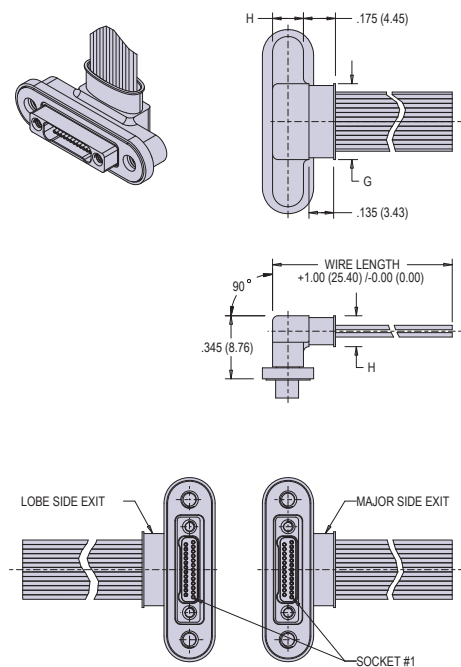


PLUG, 45° BACKSHELL, FLYING LEAD
EXAMPLE P/N: 891-054-25PSH-0B7-12T-01N

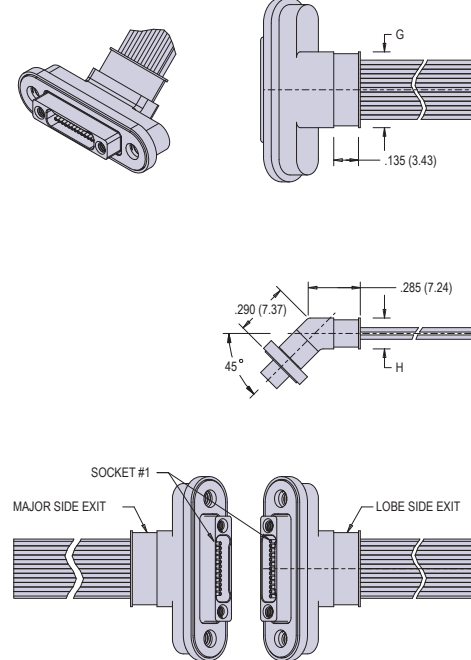


RECEPTACLE 90° AND 45° BACKSHELL DIMENSIONS

RECEPTACLE, 90° BACKSHELL, FLYING LEAD
EXAMPLE P/N: 891-054-25SSM-0B7-12T-01N



RECEPTACLE, 45° BACKSHELL, FLYING LEAD
EXAMPLE P/N: 891-054-25SSH-0B7-12T-01N



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