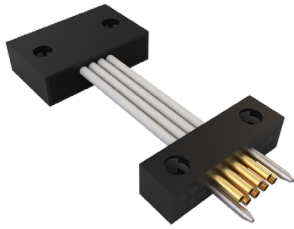


# SERIES 89 NANOMINIATURE Single and Dual Row Nano Strip Connectors



## 891-046 Dual Row, Plastic Shell, Nano Strip, Back-to-Back Cable Assembly

SINGLE AND DUAL ROW NANO STRIP CONNECTORS



**Nano Strip Jumpers with Insulated Wire** feature gold alloy TwistPin contacts. Contacts are precision-crimped to Insulated wire. These nanominiature strip connectors offer premium performance and reliability for demanding applications. Wire gages #30 and #32 AWG.

**TwistPin Contact System** assures premium performance in demanding environments. The gold alloy contacts will stand up to years of exposure without corrosion.

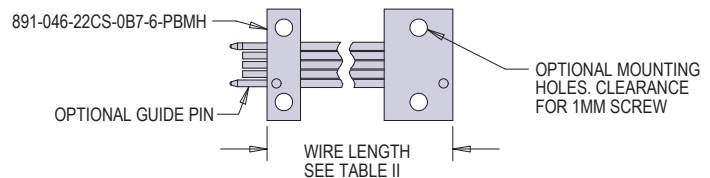
**Typical Applications** include UAVs, satellites, missile systems and geophysical instruments.

### HOW TO ORDER

Sample Part Number	891-046	-22	CS	-0	B	7	-6	-PB	MH
<b>Series</b>	891-046 = Dual Row, Plastic Shell, Nano Strip, Back-to-Back Cable Assembly								
<b>Number of Cavities</b>	2 thru 80 = Total number of cavities including cavities used for guide pins and disabled cavities used for mounting holes, if any. See Table I								
<b>Contact Type</b>	GP = Pin (plug) connector for both ends GS = Socket (receptacle) connector for both ends CS = Pin (plug) connector to socket (receptacle) connector								
<b>Wire Gage</b>	0 = #30 AWG (wire types A, B, C, E, and F)      2 = #32 AWG (wire type B only)								
<b>Wire Type</b>	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 = Crosslinked modified ETFE insulation, silver coated high strength copper, SAE AS22759/33-30 E = Crosslinked modified ETFE insulation, low fluoride, lightweight, silver-coated high strength copper alloy, SAE AS22759/51-30 F = Crosslinked modified ETFE insulation, low fluoride, lightweight, silver-coated copper, SAE AS22759/52-30								
<b>Wire Color</b>	1 = White   2 = Yellow   7 = 10 color repeating (wire Type A is striped, Types B, C, E and F are solid colors)								
<b>Wire Length</b>	Wire length in inches, as required (I.E. 12 = 12 inches); 2 inches minimum								
<b>Optional Guide Pin</b>	Omit for no guide pin (Guide pin in receptacle, accepts guide pin in plug) P1 = Guide pin or accepts guide pin in position 1 (add 1 cavity to number of active contacts) PB = Guide pin or accepts guide pin in 1 and last position (add 2 cavities to number of active contacts) PX = Guide pin or accepts guide pin in position specified by "X" (add 1 cavity to number of active contacts)								
<b>Optional Mounting Holes</b>	Omit for no mounting holes      MH = Mounting holes (add 12 cavities to number of active contacts)								

NUMBER OF CAVITIES EXAMPLE
8 ACTIVE CONTACTS
+2 PB GUIDE PINS
+12 MOUNTING HOLES
22 TOTAL

TABLE II WIRE LENGTH TOLERANCE	
LENGTH RANGE	TOLERANCE
2 (50.80) -48 (1219.20)	+0.50 (12.70) /-0.00 (0.00)
>48 (1219.20) -72 (1828.80)	+1.00 (25.40) /-0.00 (0.00)
>72 (1828.80) -120 (3048.00)	+2.00 (50.80) /-0.00 (0.00)
>120 (3048.00)	+4.00 (101.60) /-0.00 (0.00)



### PERFORMANCE SPECIFICATIONS

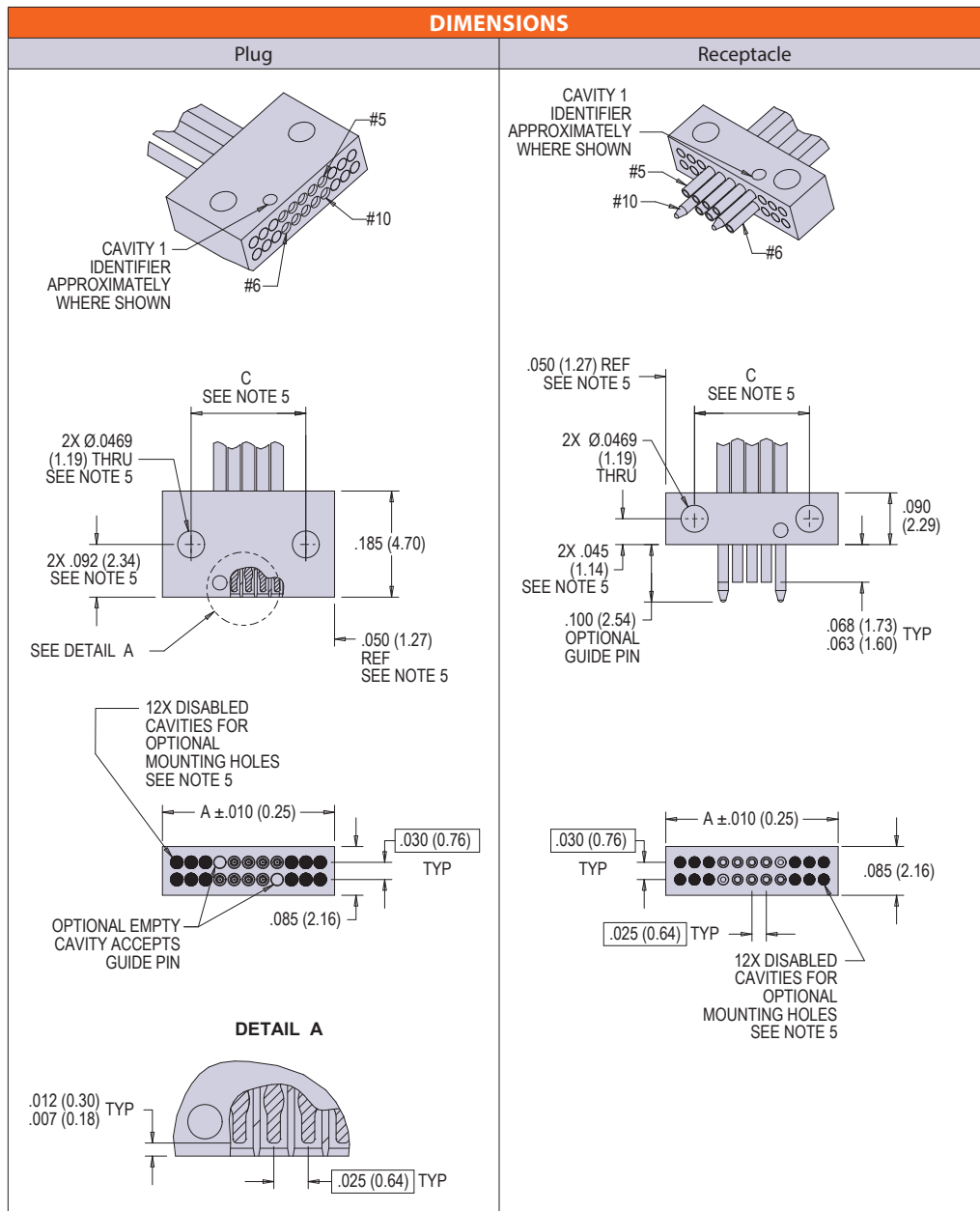
**Contact Spacing:** .025" (0.64) contact centers  
**Wire Accommodation:** #30-#32 AWG  
**Current Rating:** 1 AMP maximum tested per EIA-364-70  
**DWV:** 250 VAC RMS sea level, 100 VAC RMS 70,000 feet per EIA-364 Procedure 20  
**Insulation Resistance:** 5000 Megohms minimum test voltage 100 VDC, 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  
**Corrosion Resistance:** 48 hour 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

# SERIES 89 NANOMINIATURE Single and Dual Row Nano Strip Connectors



## 891-046 Dual Row, Plastic Shell, Nano Strip, Back-to-Back Cable Assembly



**TABLE I : DIMENSIONS**

Number Cavities	A	C See Note 5
2	0.050 (1.27)	N/A
4	0.075 (1.91)	N/A
6	0.100 (2.54)	N/A
8	0.125 (3.18)	N/A
10	0.150 (3.81)	N/A
12	0.175 (4.45)	N/A
14	0.200 (5.08)	0.100 (2.54)
16	0.225 (5.72)	0.125 (3.18)
18	0.250 (6.35)	0.150 (3.81)
20	0.275 (6.99)	0.175 (4.45)
22	0.300 (7.62)	0.200 (5.08)
24	0.325 (8.26)	0.225 (5.72)
26	0.350 (8.89)	0.250 (6.35)
28	0.375 (9.53)	0.275 (6.99)
30	0.400 (10.16)	0.300 (7.62)
32	0.425 (10.80)	0.325 (8.26)
34	0.450 (11.43)	0.350 (8.89)
36	0.475 (12.07)	0.375 (9.53)
38	0.500 (12.70)	0.400 (10.16)
40	0.525 (13.34)	0.425 (10.80)
42	0.550 (13.97)	0.450 (11.43)
44	0.575 (14.61)	0.475 (12.07)
46	0.600 (15.24)	0.500 (12.70)
48	0.625 (15.88)	0.525 (13.34)
50	0.650 (16.51)	0.550 (13.97)
52	0.675 (17.15)	0.575 (14.61)
54	0.700 (17.78)	0.600 (15.24)
56	0.725 (18.42)	0.625 (15.88)
58	0.750 (19.05)	0.650 (16.51)
60	0.775 (19.69)	0.675 (17.15)
62	0.800 (20.32)	0.700 (17.78)
64	0.825 (20.96)	0.725 (18.42)
66	0.850 (21.59)	0.750 (19.05)
68	0.875 (22.23)	0.775 (19.69)
70	0.900 (22.86)	0.800 (20.32)
72	0.925 (23.50)	0.825 (20.96)
74	0.950 (24.13)	0.850 (21.59)
76	0.975 (24.77)	0.875 (22.23)
78	1.000 (25.40)	0.900 (22.86)
80	1.025 (26.04)	0.925 (23.50)

SINGLE AND DUAL ROW NANO STRIP CONNECTORS

### NOTES

- Material and Finishes:
  - Shell: polyphenylene sulfide (PPS)
  - Contacts: gold alloy / unplated
  - Wire: see part number break down
  - Optional guide pin: stainless steel, passivated
- Inspect and test IAW MIL-DTL-32139 where applicable
- Strip shell may have a half cavity on either end or each end
- For 10 repeating colors, wire color skipped for guide pin designated cavity(ies)
- Only applies if ordered with optional mounting holes