

SERIES 89 NANOMINIATURE Threaded and Breakaway Nano Circulars



893-010 Rear Panel Mount, Breakaway Receptacle with Right-Angle PC Tails

THREADED AND BREAKAWAY NANO CIRCULARS



Glenair Rear Panel Mount Breakaway Right-Angle PCB Connectors feature gold alloy contacts, offering premium performance and reliability for demanding applications. Choose Aluminum or Stainless Steel Shells in 6 layouts from 4 to 55 contacts. Connector intermates with 892-007 plug connector. PC Tails are pre-Tinned are with Sn63Pb37 or Sn60Pb40 tin-lead.

HOW TO ORDER								
Sample Part Number	893	-010	-1-7	N	A2	-0	D3	-T1
Series	893 = Nano Circular with PC Tails							
Shell Style	010 = Rear Panel Mount Breakaway Receptacle							
Shell Size/Contact Arrangement	1-4 = Shell Size 1 with 4 contacts		3-37 = Shell Size 3 with 37 contacts					
	1-7 = Shell Size 1 with 7 contacts		4-44 = Shell Size 4 with 44 contacts					
	2-19 = Shell Size 2 with 19 contacts		4-55 = Shell Size 4 with 55 contacts					
	See Receptacle Mating Face View and Contact Layout Table							
Polarization	N = Normal A = Alternate							
Shell Material/Finish	A2 = Aluminum/Electroless Nickel		S1 = Stainless Steel/Zinc Cobalt (Black)					
	A5 = Aluminum/Gold Over Nickel		S2 = Stainless Steel/Passivated					
Wire Gauge	0 = 30 AWG							
Wire Type	D3 = Single Strand Copper Alloy Wire Uninsulated, Pre-tinned							
PC Tail Length (inches)	T1 = .080" Lead Top	T3 = .140" Lead Top	B1 = .080" Lead Bottom	B3 = .140" Lead Bottom				
	T2 = .110" Lead Top	T4 = .170" Lead Top	B2 = .110" Lead Bottom	B4 = .170" Lead Bottom				

RECEPTACLE MATING FACE VIEW AND CONTACT LAYOUT (POSITION IDENTIFICATIONS NOT MARKED ON PART)					
Size 1-4 4 Contacts	Size 1-7 7 Contacts	Size 2-19 19 Contacts	Size 3-37 37 Contacts	Size 4-44 44 Contacts	Size 4-55 55 Contacts

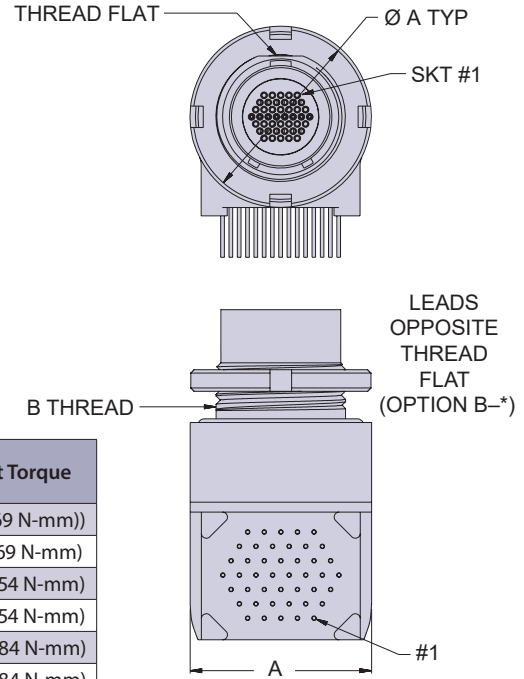
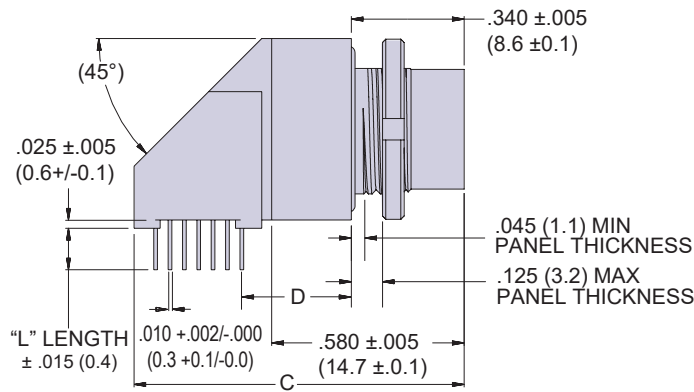
PERFORMANCE SPECIFICATIONS		
Contact Spacing: .025" (0.64) contact centers	Contact Resistance: 71 millivolt drop maximum, 1 AMP current, any catalog supported wire type	Humidity: 240 hours, IAW EIA-364-31, Test Condition B
Current Rating: 1 AMP maximum tested per EIA-364-70	Operating Temperature: -55° C. to +125° C.	Contact Engaging/Separation Force: 5 ounce maximum, 0.4 ounce minimum
DWV: 250 VAC RMS sea level, 100 VAC RMS 70,000 feet per EIA-364 Procedure 20	Vibration: 20 g's, IAW EIA-364-28, Condition IV	Thermal Vacuum Outgassing: Total mass loss (TML) 1.0% max., volatile condensable material (VCM) 0.1% max. IAW ASTM E595
Insulation Resistance: 5000 Megohms minimum test voltage 100 VDC, per EIA-364 Procedure 21	Shock: 100 g's, IAW EIA-364-27, Condition G	Inspect and Test: IAW MIL-DTL-32139
	Durability: 200 mating cycles per test procedure EIA-364-09	
	Corrosion Resistance: 48 hours salt spray IAW EIA-364-26, Condition B	

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RIGHT-ANGLE BOTTOM LEAD DIMENSIONS



Size	Ø A ±.005 (±0.13)	B Thread	C ± .020 (±0.51)	D ± .005 (±0.13)	Mounting Nut Torque
1-4	.429 (10.90)	M7.0 x 0.75 - 6g	.832 (21.13)	.350 (8.89)	13 in-lb max (1469 N-mm)
1-7	.429 (10.90)	M7.0 x 0.75 - 6g	.832 (21.13)	.335 (8.51)	13 in-lb max (1469 N-mm)
2-19	.488 (12.40)	M8.5 x 0.75 - 6g	.918 (23.32)	.335 (8.51)	35 in-lb max (3954 N-mm)
3-37	.528 (13.41)	M9.5 x 0.75 - 6g	1.005 (25.53)	.335 (8.51)	35 in-lb max (3954 N-mm)
4-44	.567 (14.40)	M10.5 x 0.75 - 6g	1.005 (25.53)	.330 (8.38)	45 in-lb max (5084 N-mm)
4-55	.567 (14.40)	M10.5 x 0.75 - 6g	1.092 (27.74)	.335 (8.51)	45 in-lb max (5084 N-mm)

BOTTOM LEAD RECOMMENDED PCB LAYOUT COMPONENT SIDE VIEW

Size 1-4	Size 1-7	Size 2-19
Size 3-37	Size 4-44	Size 4-55

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THREADED AND BREAKAWAY NANO CIRCULARS

RIGHT-ANGLE TOP LEAD DIMENSIONS					
Size	Ø A ±.005 (±0.13)	B Thread	C ±.020 (±0.51)	D ± .005 (±0.13)	Mounting Nut Torque
1-4	.429 (10.90)	M7.0 x 0.75 - 6g	.832 (21.13)	.350 (8.89)	13 in-lb max (1469 N-mm)
1-7	.429 (10.90)	M7.0 x 0.75 - 6g	.832 (21.13)	.335 (8.51)	13 in-lb max (1469 N-mm)
2-19	.488 (12.40)	M8.5 x 0.75 - 6g	.918 (23.32)	.335 (8.51)	35 in-lb max (3954 N-mm)
3-37	.528 (13.41)	M9.5 x 0.75 - 6g	1.005 (25.53)	.335 (8.51)	35 in-lb max (3954 N-mm)
4-44	.567 (14.40)	M10.5 x 0.75 - 6g	1.005 (25.53)	.330 (8.38)	45 in-lb max (5084 N-mm)
4-55	.567 (14.40)	M10.5 x 0.75 - 6g	1.092 (27.74)	.335 (8.51)	45 in-lb max (5084 N-mm)

TOP LEAD PCB LAYOUTS COMPONENT SIDE VIEW		
Size 1-4	Size 1-7	Size 2-19
Size 3-37	Size 4-44	Size 4-55

SERIES 89 NANOMINIATURE Threaded and Breakaway Nano Circulares



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NOTES

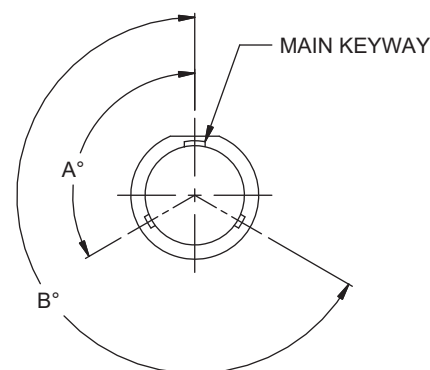
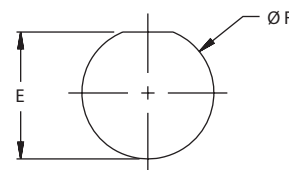
- Material and finish shell and spanner nut:
 - A2: aluminum alloy, electroless nickel plated per SAE-AMS-2404, Class 3 or 4, Grade B
 - A5: aluminum alloy, gold plate per ASTM B488, Type I, Code C, over electroless nickel per ASTM B733 SC 2, Type IV, Class 4
 - S1: 300 Series stainless steel per ASTM A276, zinc cobalt (black) plating per ASTM B840 Gr 6, Type D, over nickel strike (not recommended for bonding resistance requirements)
 - S2: 300 Series stainless steel per ASTM A276, passivated IAW SAE AMS 2700
 - Insulator: liquid crystal polymer (LCP), per MIL-M-24519 GLCP-30F, 30% glass-filled
 - Contacts: gold alloy/unplated
 - Wire: see part number development
 - EMI Spring: stainless steel/gold plate
- Inspect and test per MIL-DTL-32139
- Replacement parts and tools:
 - Mounting nut: 899-019
 - Panel O-ring: 899-020
 - Internal O-ring: 899-021
 - EMI spring: 899-022
 - Rear panel mount, spanner nut wrench: 600-189

REAR PANEL MOUNT PANEL CUT-OUT

Size	E +.002 / -.001 (+0.05/-0.00)	ØF +.002 / -.001 (+0.05/-0.00)
1-4	.260 (6.60)	.280 (7.11)
1-7	.260 (6.60)	.280 (7.11)
2-19	.318 (8.08)	.340 (8.64)
3-37	.361 (9.17)	.378 (9.60)
4-44	.401 (10.19)	.420 (10.67)
4-55	.401 (10.19)	.420 (10.67)

KEYWAY POSITIONS

Size	Polarization	A°	B°
1-4	N	150	210
	A	75	210
1-7	N	95	230
	A	140	275
2-19	N	150	210
	A	75	210
3-37	N	150	210
	A	75	210
4-44	N	150	210
	A	75	210
4-55	N	95	230
	A	140	275



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