

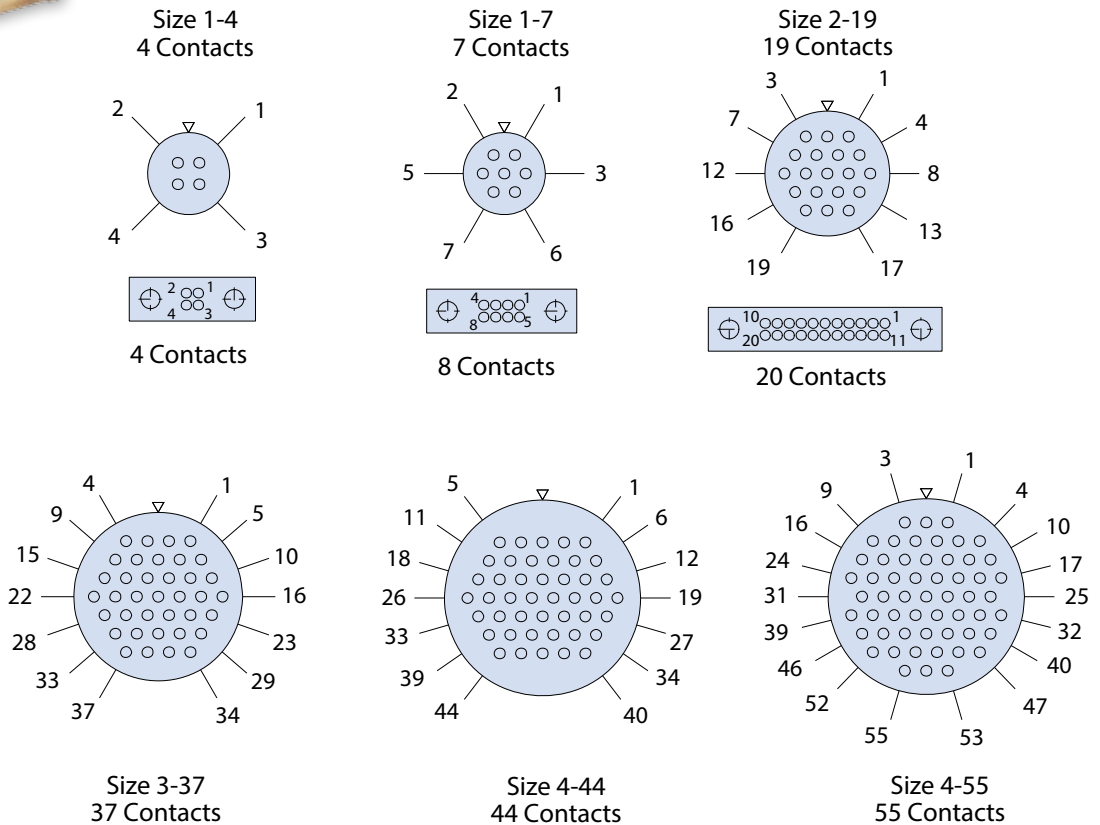


Circular Nano to AlphaLink flex jumper

Circular Nano to AlphaLink Flex Jumpers

Glenair Series 89 Circular Nanominiature connectors available in 6 contact arrangements, terminated with rugged polyimide-based flex to AlphaLink board level connectors.

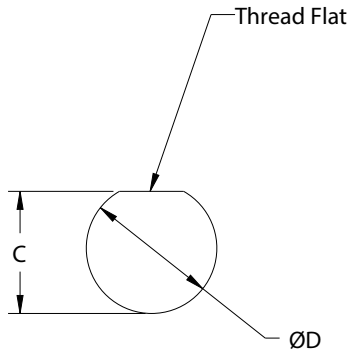
Recommended Circular Nano I/O to AlphaLink Contact Arrangements* Receptacle Mating Face Views



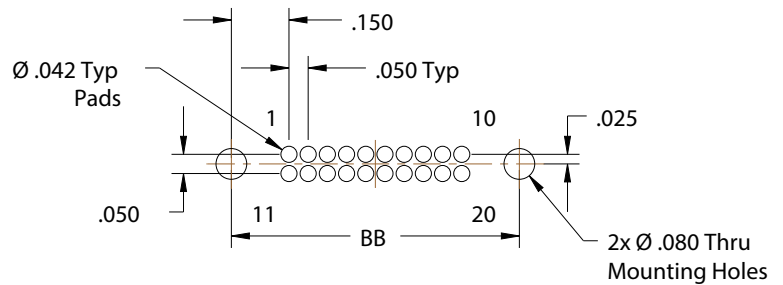
* These are recommended contact arrangements only, but do offer best availability. Contacts are mapped 1-to-1 from I/O to B/L connector (unused B/L contacts not connected). For alternative wire schedules, please consult factory.

To optimize the 40-contact AlphaLink board level connector, 40 contacts of a 44- or 55-contact size Circular Nanominiature connector can be used.

Contact arrangements • materials and finishes • dimensions • PCB layout • panel cutout



Panel Cut-Out



Recommended PCB Layout

Key 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

Table I: I/O Panel Mount Dimensions		
Arrangement	C +.002/-.001	ØD +.002/-.001
4	0.260 (6.6)	0.280 (7.1)
7	0.260 (6.6)	0.280 (7.1)
19	0.318 (8.1)	0.340 (8.6)
37	0.361 (9.2)	0.378 (9.6)
44	0.401 (10.2)	0.420 (10.7)
55	0.401 (10.2)	0.420 (10.7)

Table II: B/L AlphaLink Layout and Dimensions		
No. of contacts	AA	BB
4	0.527 (13.4)	0.350 (8.9)
8	0.627 (15.9)	0.450 (11.4)
10	0.677 (17.2)	0.500 (12.7)
12	0.727 (18.5)	0.550 (14.0)
16	0.827 (21.0)	0.650 (16.5)
20	0.927 (23.5)	0.750 (19.1)
24	1.027 (26.1)	0.850 (21.6)
28	1.127 (28.6)	0.950 (24.1)
30	1.177 (29.9)	1.000 (25.4)
32	1.227 (31.2)	1.050 (26.7)
36	1.327 (33.7)	1.150 (29.2)
40	1.427 (36.2)	1.250 (31.8)

I/O Shell Material/Finish		
Sym	Material	Finish
A2	Aluminum Alloy	Electroless Nickel
A5		Gold over Nickel
S1	Stainless Steel	Black Zinc Cobalt
S2		Passivate

Circular Nanominiature breakaway rear-panel-mount receptacle connector to AlphaLink SL flex jumper



893-012

SERIES 89 CIRCULAR NANOMINIATURE INPUT/OUTPUT (I/O) BREAKAWAY RECEPTACLE TO ALPHALINK SL SPRING LOADED CONTACT BOARD LEVEL (B/L) CONNECTOR

How To Order 893-012	
Sample Part Number	893-012 -19 N A2 -20 2 T -12 S
Series / Basic Part No.	Series 89 Circular Nanominiature Breakaway I/O receptacle to Series 171 AlphaLink SL
I/O Contact Arrangement	See Table I
I/O Polarization	N = Normal A = Alternate
I/O Shell and Spanner Nut Material and Finish	A2 = Aluminum / Electroless Nickel A5 = Aluminum / Gold over Nickel S1 = Stainless Steel / Zinc Cobalt (Black) S2 = Stainless Steel / Passivated
AlphaLink Layout	See Table II
AlphaLink Finish	2 = Nickel 5 = Gold
AlphaLink Hardware Option	Omit for .080+/- clearance hole in body, #0-80 UNF-2B threaded thru hole T = #0-80 UNF-2B Threaded Thru in Body, Contersink Clearance Hole in Cover
Assembly Length (L)	3 = 3.00 ± .05 inches 6 = 6.00 ± .05 inches 12 = 12.00 ± .05 inches
Optional Shielding	S = With shielding Omit for none

MATERIALS AND FINISHES

B/L connector shell: Aluminum alloy.
I/O shell, jam nut: See P/N development
I/O Insulator: LCP
I/O O-ring: Fluorosilicone
I/O Contacts: Gold Alloy per ASTM B477 and ASTM B541
B/L Insulator: High Temp Thermoplastic
B/L Contact: Copper Alloy/Gold Plated

NOTES

Input/Output Series 89 Nanominiature breakaway receptacle performance IAW MIL-DTL-32139
As a minimum, assembly identified with date code, and Pin 1 identifier. Bag and tag with Glenair part number, CAGE code, and date code.
Contacts mapped 1-to-1 from I/O to B/L connector (unused B/L contacts not connected). For alternative wire schedules, please consult factory.

Unused Cavities in I/O panel mount connector to be populated with contacts.

B/L AlphaLink SL interface dimensions IAW Glenair drawing 171-134-02. Interface shown for reference.

Unused cavities in B/L connector to be populated with contacts.

Flex Performance:

Shielding - EMI shielding film will be used when shielding option is chosen

Bend radius is 6 to 10 times the flex thickness.

Typical flex will be .01 ± .005 thick, rugged, potted, polyimide-based flex.

Flex cables are terminated from the I/O connector to the B/L connector on a 1 to 1 connection (unused B/L contacts are not connected)

Workmanship shall be IAW IPC-6013, Class 2.

Consult factory for more options and/or special designs and requirements

Circular Nanominiature breakaway rear-panel-mount receptacle connector to AlphaLink SL flex jumper

893-012

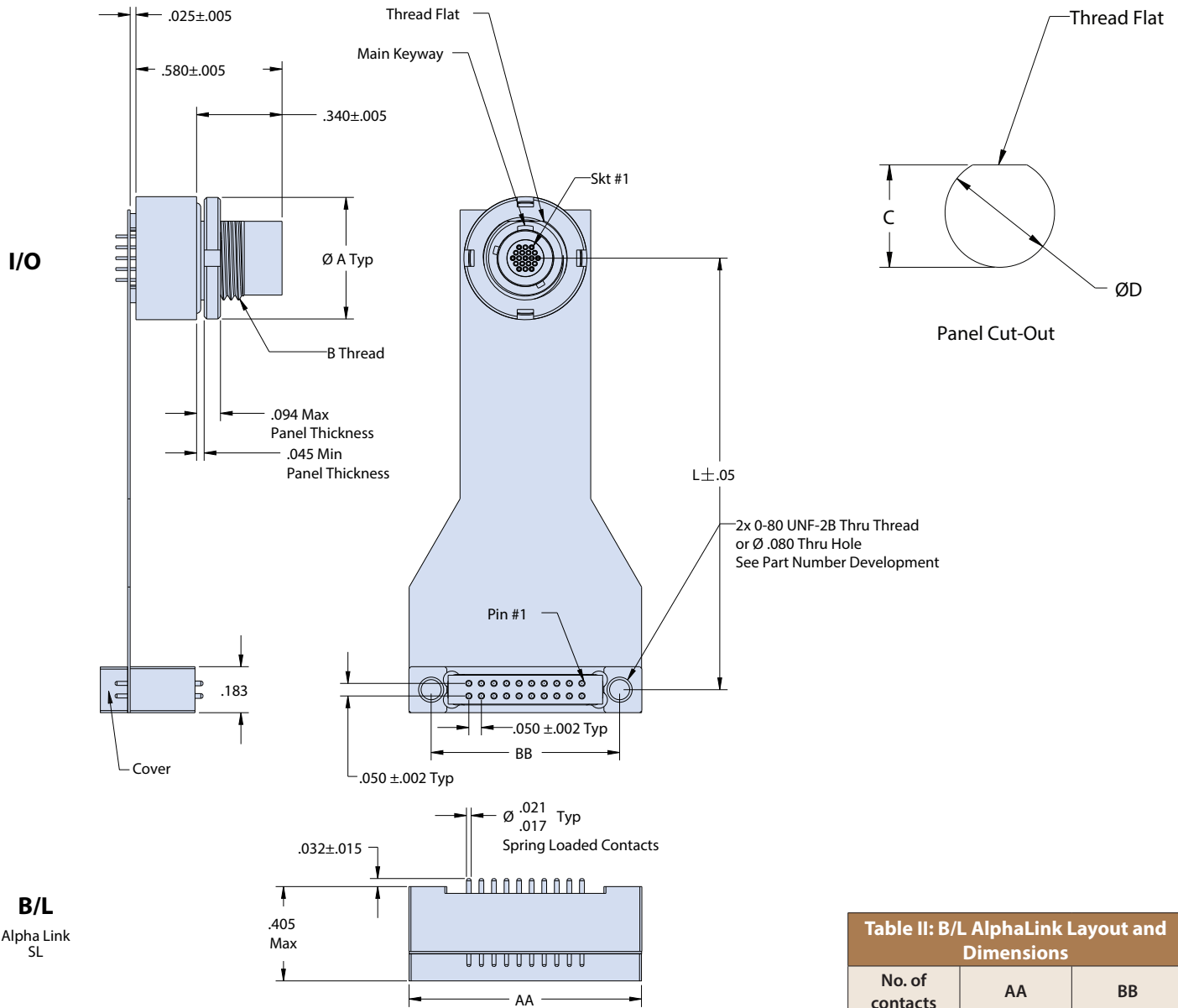


Table I: I/O Panel Mount Arrangement And Dimensions

Arrangement	ØA	B Thread	C +.002/- .001	ØD +.002/- .001
4	0.429 (10.9)	M7.0 X 0.75-6G	0.260 (6.6)	0.280 (7.1)
7	0.429 (10.9)	M7.0 X 0.75-6G	0.260 (6.6)	0.280 (7.1)
19	0.488 (12.4)	M8.5 X 0.75-6G	0.318 (8.1)	0.340 (8.6)
37	0.528 (13.4)	M9.5 X 0.75-6G	0.361 (9.2)	0.378 (9.6)
44	0.567 (14.4)	M10.5 X 0.75-6G	0.401 (10.2)	0.420 (10.7)
55	0.567 (14.4)	M10.5 X 0.75-6G	0.401 (10.2)	0.420 (10.7)

Table II: B/L AlphaLink Layout and Dimensions

No. of contacts	AA	BB
4	0.527 (13.4)	0.350 (8.9)
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32	1.227 (31.2)	1.050 (26.7)
36	1.327 (33.7)	1.150 (29.2)
40	1.427 (36.2)	1.250 (31.8)

Circular Nanominiature threaded coupling rear-panel-mount receptacle connector to AlphaLink SL flex jumper

893-013

SERIES 89 CIRCULAR NANOMINIATURE INPUT/OUTPUT (I/O) THREADED-COUPLING RECEPTACLE TO ALPHALINK SL SPRING LOADED CONTACT BOARD LEVEL (B/L) CONNECTOR

How To Order 893-013	
Sample Part Number	893-013 -19 N A2 -20 2 T -12 S
Series / Basic Part No.	Series 89 Circular Nanominiature Threaded Coupling I/O receptacle to Series 171 AlphaLink SL
I/O Contact Arrangement	See Table I
I/O Polarization	N = Normal A = Alternate
I/O Shell and Spanner Nut Material and Finish	A2 = Aluminum / Electroless Nickel A5 = Aluminum / Gold over Nickel S1 = Stainless Steel / Zinc Cobalt (Black) S2 = Stainless Steel / Passivated
AlphaLink Layout	See Table II
AlphaLink Finish	2 = Nickel 5 = Gold
AlphaLink Hardware Option	Omit for .080+/- clearance hole in body, #0-80 UNF-2B threaded thru hole T = #0-80 UNF-2B Threaded Thru in Body, Contersink Clearance Hole in Cover
Assembly Length (L)	3 = 3.00 ± .05 inches 6 = 6.00 ± .05 inches 12 = 12.00 ± .05 inches
Optional Shielding	S = With shielding Omit for none

MATERIALS AND FINISHES

B/L connector shell: Aluminum alloy.
 I/O shell, jam nut: See P/N development
 I/O Insulator: LCP
 I/O O-ring: Fluorosilicone
 I/O Contacts: Gold Alloy per ASTM B477 and ASTM B541
 B/L Insulator: High Temp Thermoplastic
 B/L Contact: Copper Alloy/Gold Plated

NOTES

Input/Output Series 89 Nanominiature breakaway receptacle performance IAW MIL-DTL-32139
 As a minimum, assembly identified with date code, and Pin 1 identifier. Bag and tag with Glenair part number, CAGE code, and date code.
 Contacts mapped 1-to-1 from I/O to B/L connector (unused B/L contacts not connected). For alternative wire schedules, please consult factory.

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Workmanship shall be IAW IPC-6013, Class 2.

Consult factory for more options and/or special designs and requirements

Circular Nanominiature threaded coupling rear-panel-mount receptacle connector to AlphaLink SL flex jumper

893-013

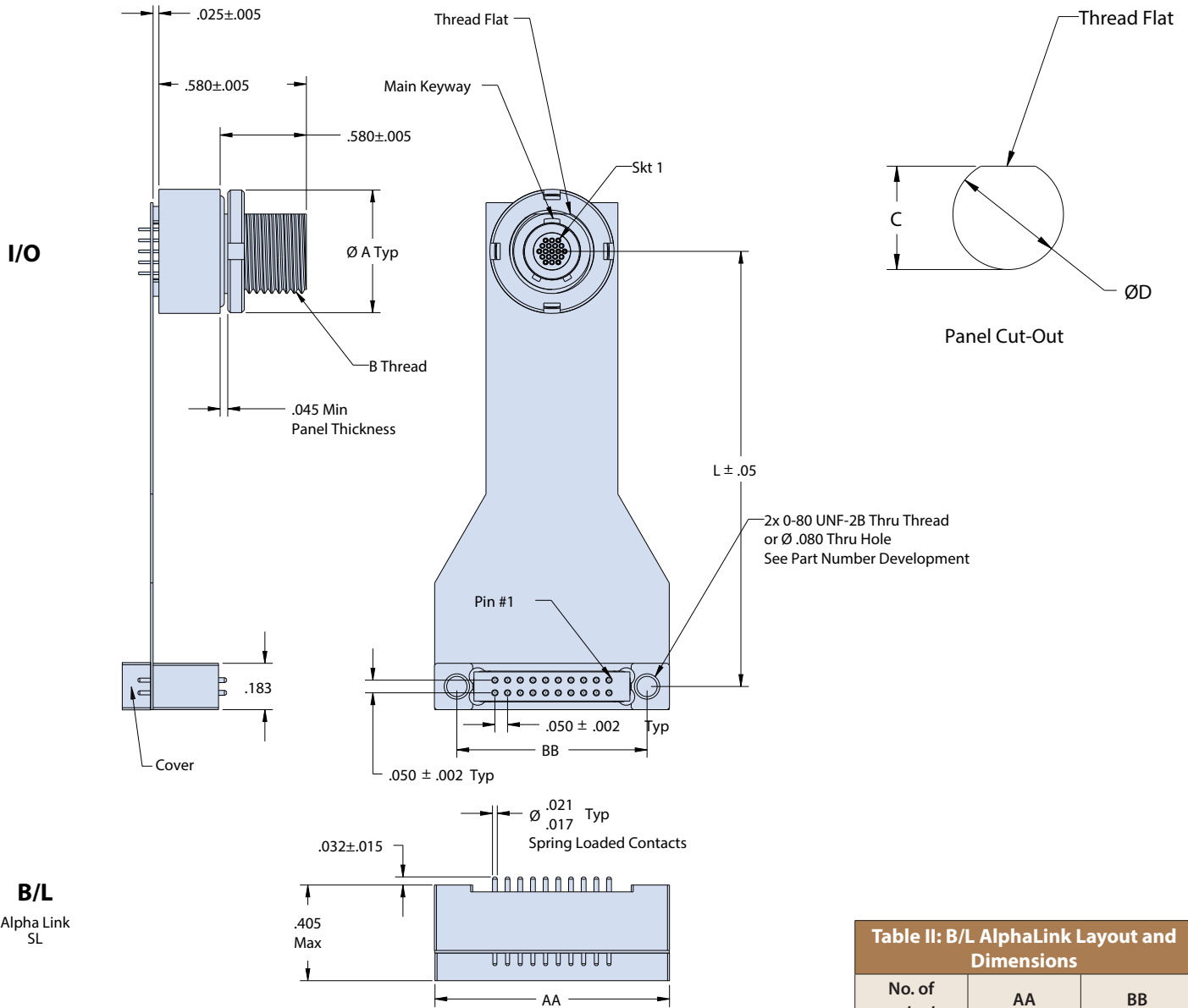


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