



500T010, 500S010, 500E010, 500D010 Top, Side, 45°, and 90° Entry EMI/RFI Micro-D Banding Backshell Round Cable Entry



Glenair's Most Popular Micro-D Backshell is stocked in all sizes. Choose straight, side or 45° cable entry.

Rugged One-Piece Aluminum shell with stainless steel hardware, available in standard nickel plating, or choose optional finishes.

17-7PH Stainless Steel Clips attach the backshell to the connector. These backshells accept standard and micro Band-Master ATS® shield termination straps.

How To Order EMI/RFI Backshells

Sample Part Number		500T010	M	25	H	08	S
Series	500T010 - Top Entry 500E010 - 45° Entry 500S010 - Side Entry 500D010 - Dual 45° (See Table III)						
Shell Finish	A - Cadmium Plate/Bright Dip B - Cadmium Plate/Olive Drab B1 - Cad Plate/Olive Drab, Type II Class 1 J - Gold Iridite Over Cad; Plate Over Nickel M - Electroless Nickel N - Cadmium Plate/Olive Drab; Over Nickel NF - Cad/O. D. Over Electroless; Nickel (1000 Hour Salt Spray) T - Cadmium Plate/Bright Dip Over Nickel Z2 - Gold Plate Z1 - Passivate, Stainless; Steel Material						
Shell Size	09, 15, 21, 25, 31, 37, 51, 51-2, 67, 69, 100 (See Table III)						
Hardware Option	B - (2) Fillister Head Jackscrew BJ - (2) Male Fillister Head H - (2) Hex Head Jackscrew HJ - (2) Male Hex E - (2) Extended Jackscrew EJ - (2) Male Extended (Style T and S Only) F - (2) Jackpost, Female FB - (1) Female Jackpost, (1) Male Fillister Head FH - (1) Female Jackpost, (1) Male Hex Socket N - No Hardware						
Cable Entry Code	04 - .125 (3.2) 05 - .156 (4.0) 06 - .188 (4.8) 07 - .219 (5.6) 08 - .250 (6.4) 09 - .281 (7.1) 10 - .312 (7.9) 11 - .344 (8.7) 12 - .375 (9.5)						
Qwik-Ty Option	S - with Qwik-Ty strain relief Omit for none						
Band-Master ATS® EMI Band Strap Option	Omit (Leave Blank) - Band Not Included Use the following codes to order band strap with the connector. For best availability, order band separately. Standard Band - .250" Wide B - Uncoiled Band Included K - Coiled Band Included Micro Band - .125" Wide M - Uncoiled Band Included L - Coiled Band Included						

Table I: Maximum Cable Entry Code

Shell Size	Style E & T	Style D	Style S
9	08	06	09
15	08	08	10
21	08	08	10
25	08	08	12
31	09	09	12
37	09	09	12
51	10	10	12
51-2	09	09	12
67	09	09	12
69	10	10	12
75	10	10	12
100	12	12	12
130	12	12	12

Table II: Maximum Cable Entry Dimensions

Cable Size	P ±.015		R Dia. Max	
	In. ± .015	mm. ± 0.38	In.	mm.
04	.125	3.2	.296	7.5
05	.156	4.0	.327	8.3
06	.188	4.8	.359	9.1
07	.219	5.6	.390	9.9
08	.250	6.4	.421	10.7
09	.281	7.1	.452	11.5
10	.312	7.9	.484	12.3
11	.344	8.7	.515	13.1
12	.375	9.5	.546	13.7

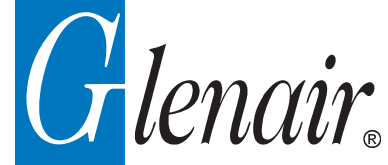
Notes

1. Assembly identified with manufacturer's name and P/N
2. 51-2 shell size is for a special 51 position 2 row Micro D connector
3. Knurled or ribbed banding platform - manufacturer's option
4. EMI gasket mounts between mating connector and panel

Materials/Finish

- Shell: Aluminum Alloy 6061 -T6 Per QQ-A-200, QQ-A-225 (Machined Components)
Aluminum Alloy 6061-T6 Per QQ-A-591 (A380) (Die-Cast Components)
- Clips, E-Rings: 17-7PH Stainless Steel
- Jackscrews, Washers, Jackposts: 300 Series Stainless Steel, Passivated

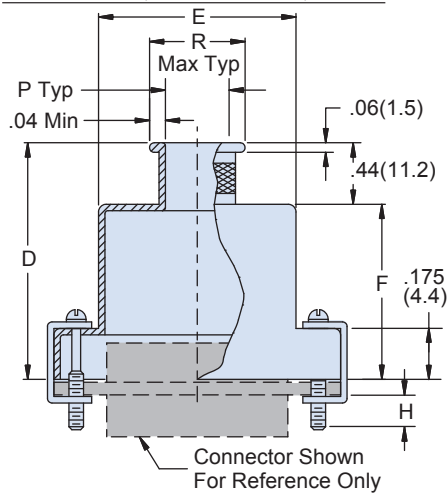
500T010, 500S010, 500E010, 500D010
Top, Side, 45°, and 90° Entry
EMI/RFI Micro-D Banding Backshell
Round Cable Entry



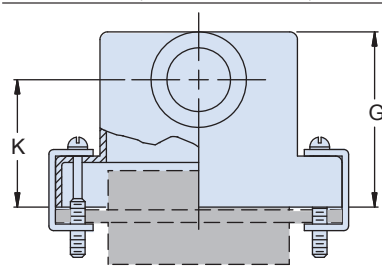
Micro-D Backshells

Table III: Dimensions

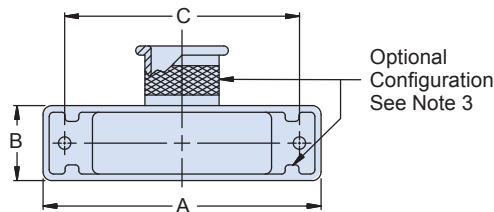
Style T - Top Entry



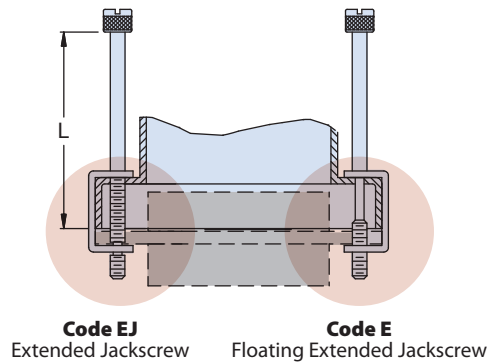
Style S - Side Entry



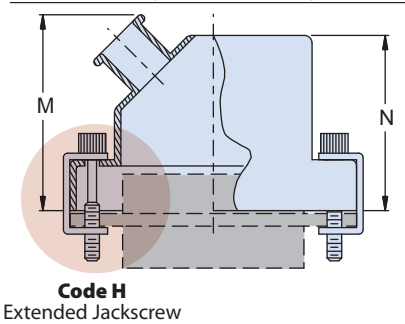
EMI Gasket Option (559-005)
 See Note 4



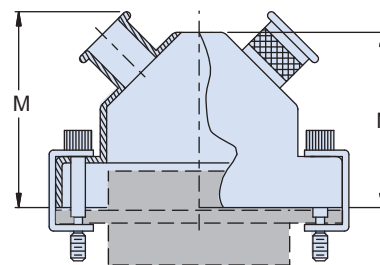
Available for Style T and S Only



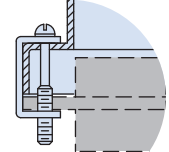
Style E - 45° Entry



Style D - 45° Dual Entry

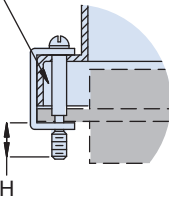


Code B



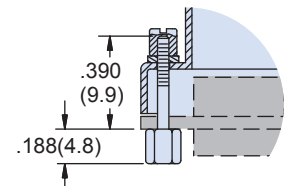
Configuration
 Mfr Option

Code BJ



Code F

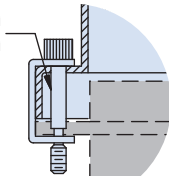
Female Jackpost



Code HJ

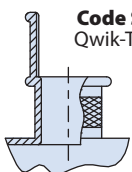
Hex Socket Jackscrew

Configuration
 Mfr Option



Code S

Qwik-Ty



M

Size	A Max.		B Max.		C		D Max.		E Max.		F Max.		G Max.		H Ref		J Thread	K		L Max.		M Max.		N Max.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		In.	mm.	In.	mm.	In.	mm.	In.	mm.
09	.850	21.59	.370	9.40	.565	14.35	.780	19.81	.410	10.41	.350	8.89	.637	16.18	.154	3.9	2-56 UNC-2	.435	11.05	1.040	26.42	1.000	25.40	.680	17.27
15	1.000	25.40	.370	9.40	.715	18.16	.910	23.11	.580	14.73	.470	11.94	.673	17.09	.154	3.9	2-56 UNC-2	.440	11.2	1.170	29.72	1.030	26.16	.730	18.54
21	1.150	29.21	.370	9.40	.865	21.97	1.030	26.16	.740	18.80	.590	14.99	.707	17.95	.154	3.9	2-56 UNC-2	.458	11.63	1.290	32.77	1.050	26.67	.765	19.43
25	1.250	31.75	.370	9.40	.965	24.51	1.090	27.69	.850	21.59	.650	16.51	.748	19.00	.154	3.9	2-56 UNC-2	.483	12.27	1.350	34.29	1.090	27.69	.830	21.08
31	1.400	35.56	.370	9.40	1.115	28.32	1.150	29.21	.980	24.89	.710	18.03	.756	19.20	.154	3.9	2-56 UNC-2	.476	12.09	1.420	36.07	1.130	28.70	.890	22.61
37	1.550	39.37	.370	9.40	1.265	32.13	1.190	30.23	1.130	28.70	.750	19.05	.774	19.66	.154	3.9	2-56 UNC-2	.478	12.14	1.450	36.83	1.230	31.24	.955	24.26
51	1.500	38.10	.410	10.41	1.215	30.86	1.220	30.99	1.080	27.43	.780	19.81	.859	21.82	.154	3.9	2-56 UNC-2	.548	13.91	1.480	37.59	1.250	31.75	1.005	25.53
51-2	1.910	48.51	.370	9.40	1.615	41.02	1.220	30.99	1.510	38.35	.780	19.81	.859	21.82	.154	3.9	2-56 UNC-2	.548	13.91	1.480	37.59	1.250	31.75	1.005	25.53
67	2.310	58.67	.370	9.40	2.015	51.18	1.220	30.99	1.880	47.75	.780	19.81	.859	21.82	.154	3.9	2-56 UNC-2	.548	13.91	1.480	37.59	1.250	31.75	1.005	25.53
69	1.810	45.97	.410	10.41	1.515	38.48	1.220	30.99	1.380	35.05	.780	19.81	.859	21.82	.154	3.9	2-56 UNC-2	.548	13.91	1.480	37.59	1.250	31.75	1.005	25.53
75	2.140	54.36	.410	10.41	1.705	43.31	1.220	30.99	1.375	34.93	.780	19.81	.859	21.82	.184	4.7	4-40 UNC-2	.548	13.91	1.480	37.59	1.250	31.75	1.005	25.53
100	2.235	56.77	.460	11.68	1.800	45.72	1.280	32.51	1.470	37.34	.840	21.34	1.014	25.76	.184	4.7	4-40 UNC-2	.687	17.45	1.580	40.13	1.320	33.53	1.080	27.43
130	2.595	65.92	.490	11.68	2.160	54.86	1.280	32.51	1.830	46.48	.840	21.34	1.014	25.76	.184	4.7	4-40 UNC-2	.687	17.45	1.580	40.13	1.320	33.53	1.080	27.43



Reference Information Standard Materials and Finishes

TABLE II - STANDARD FINISHES

GLENAIR SYMBOL	M85049 SYMBOL REFERENCE ONLY	FINISH	SPECIFICATION(S)
A		Cadmium Plate, Bright	AMS-QQ-P-416, Type I, Class 2
B		Cadmium Plate, Olive Drab	AMS-QQ-P-416, Type II, Class 3
C*	A	Anodize, Black	AMS-A-8625, Type II, Class 2
G*		Hard Coat, Anodic	AMS-A-8625, Type III, Class 1
J		Iridite, Gold Over Cadmium Plate Over Electroless Nickel	MIL-C-5541, Class 3 AMS-QQ-P-416, Type II, Class 3 over AMS-C-26074, Class 4, Grade B
LF		Cadmium Plate, Bright Over Electroless Nickel	1000 Hour Corrosion Resistance
M	N	Electroless Nickel	AMS-C-26074, Class 4, Grade B
N		Cadmium Plate, Olive Drab Over Electroless Nickel	AMS-QQ-P-416, Type II, Class 3 over Electroless Nickel AMS-C-26074
NC		Zinc Cobalt, Dark Olive Drab	96 Hour Corrosion Resistance
NF	W	Cadmium Plate, Olive Drab Over Electroless Nickel	1000 Hour Corrosion Resistance
T		Cadmium Plate, Bright Over Electroless Nickel	AMS-QQ-P-416, Type I, Class 3 ASTMB 733-90, SC2, Type I, Class 5, MIL-C-26074***
U		Cadmium Plate, Black	AMS-QQ-P-416, Type II, Class 3
ZU**		Cadmium Plate, Black	AMS-QQ-P-416, Type II, Class 3
ZN		Zinc-Nickel Alloy, Olive Drab	ASTMB 841-91, Over Electroless Nickel 1000 Hour Salt Spray

* Anodize finish; not suitable for EMI Shielding or grounding applications.
 ** Applicable to corrosion resisting steel backshells and accessories. Consult factory for other available finishes.

The following standard materials are used for the majority of Glenair backshells and connector accessories. However, backshell components are not limited to those items listed, but are representative of

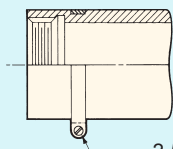
the elements used in Glenair's general accessory products. Contact Glenair for applicable specifications on items not listed below.

STANDARD MATERIALS - BACKSHELLS AND ACCESSORIES

COMPONENT	MATERIAL	SPECIFICATION
Machined components: such as backshell bodies, fabricated elbows, protective covers, rotatable couplers, dummy stowage receptacles, lock nuts, G-spring support rings, EMI ground rings, grommet followers, etc.	Aluminum	AMS-QQ-A-200 ASTMB221, 209
Die cast components: such as angular backshells, strain relief backshells, strain relief bodies, strain relief saddles, special EMI ground rings, etc.	Aluminum	QQ-A-591 ASTMB85, 26
Backshells or strain reliefs: available in optional corrosion resisting steel; and hardware: such as screws, washers, rivets, wire rope, sash chain, band straps, etc.	Corrosion Resisting Steel	ASTMA582 (300 Series) AMS-QQ-S-763
Elastomeric seals: such as O-rings, cable jacket seals, grommets, etc.	Silicone	A-A-59588
	Fluorosilicone	MIL-DTL-25988
Anti-friction and thrust washers	Fluoropolymer	TFE
Anti-rotation device	Corrosion Resistant Material	N/A

BODY STRAP

Glenair offers an optional stainless steel body strap for attaching protective covers as illustrated. To specify body strap, add suffix letter C to the end of the part number. For example 360AS001M1610M6C.



2-56 Screw and Nut

NOTES

On all length callouts, tolerance is $\pm .060$ unless otherwise specified.

Unless otherwise specified, the following other dimensional tolerances will apply:

.xx = $\pm .03$ (0.8)
 .xxx = $\pm .015$ (0.4)
 Lengths = $\pm .060$ (1.52)
 Angles = $\pm 5^\circ$

Metric dimensions (mm) are indicated in parentheses

NOTE: For your convenience these tables have been reproduced inside the back cover fold-out.

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Glenair Backshell and Accessory Material and Finish Options

Backshell and accessory base materials, plating options, specifications and codes

Code	Material	Finish	Finish Specification	Hrs. Salt Spray (static)	Electrical Conductivity	Operating Temp. Range		Notes
A	Aluminum	Cadmium, No Chromate	SAE-AMS-QQ-P-416 Type I Class 3	48	Conductive	-65 to +175°C		Not recommended for new projects. LF is preferred.
AB	Marine Bronze	Unplated		1000	Conductive	-65 to +200°C	✓	Marine and geophysical applications.
AL	Aluminum	AlumiPlate, Clear Chromate	MIL-DTL-83488, Class 2, Type II over electroless nickel	1000	Conductive	-65 to +175°C	✓	Approved for MIL-DTL-38999L and MIL-DTL-83513G.
B	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 3	96	Conductive	-65 to +175°C		Not recommended for new projects. NF is preferred.
C	Aluminum	Anodize, Black	AMS-A-8625 Type II Class 2	336	Non-Conductive	-65 to +175°C	✓	Glenair's standard black anodize finish.
E	Aluminum	Chem Film	MIL-DTL-5541 Type 1 Class 3	168	Conductive	-65 to +175°C		Glenair's standard chem film finish.
G	Aluminum	Anodize, Hardcoat	AMS-A-8625 Type III, Class 1, .001" thick	336	Non-Conductive	-65 to +200°C	✓	Glenair's preferred hardcoat finish.
J	Aluminum	Cadmium, Gold	SAE-AMS-QQ-P-416 Type II, Class 2 over electroless nickel	500	Conductive	-65 to +175°C		Not recommended for new projects. JF is preferred.
JF	Aluminum	Cadmium, Gold	SAE-AMS-QQ-P-416 Type II, Class 2 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's preferred gold cadmium finish.
LF	Aluminum	Cadmium, Clear	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's preferred clear cadmium finish.
M	Aluminum	Electroless Nickel	AMS-C-26074 Class 4 Grade B; ASTM-B-733, SC 2, Type IV	48	Conductive	-65 to +200°C	✓	Glenair's standard electroless nickel finish.
MT	Aluminum	Nickel-PTFE	SAE AMS2454	1000	Conductive	-65 to +175°C	✓	Approved for MIL-DTL-38999L and MIL-DTL-83513G.
N	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 3 over electroless nickel	500	Conductive	-65 to +175°C		Not recommended for new projects. NF is preferred.
NC	Aluminum	Zinc-Cobalt, Olive Drab	ASTM B 840 Grade 6 Type D over electroless nickel	350	Conductive	-65 to +175°C		Glenair's standard olive drab zinc-cobalt finish.
NF	Aluminum	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's standard olive drab cadmium finish.
P	Stainless Steel	Electrodeposited Nickel	SAE-AMS-QQ-N-290 Class 1 Grade F	500	Conductive	-65 to +200°C	✓	Use ZM for electroless nickel alternative.
T	Aluminum	Cadmium, No Chromate	SAE-AMS-QQ-P-416 Type I Class 3 over electroless nickel	96	Conductive	-65 to +175°C		Not recommended for new projects. LF is preferred.
TP2	Titanium	Electrodeposited Nickel	SAE-AMS-QQ-N-290 Class 1 Grade F	96	Conductive	-65 to +200°C	✓	Glenair's preferred finish for titanium connectors.
U	Aluminum	Cadmium, Black	SAE-AMS-QQ-P-416 Type I Class 3	96	Conductive	-65 to +175°C		Not recommended for new projects. UF is preferred.
UC	Aluminum	Zinc-Cobalt, Black	ASTM B 840 Grade 6 Type D over electroless nickel	350	Conductive	-65 to +175°C		Glenair's standard black zinc-cobalt finish.
UCR	Aluminum	Zinc-Cobalt, Black	ASTM B 840 Grade 6 Type D over electroless nickel	350	Conductive	-65 to +175°C	✓	RoHS version of UC.
UF	Aluminum	Cadmium, Black	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's preferred black cadmium finish.
XAL	Composite	AlumiPlate	MIL-DTL-86448, Class 2, Type II over electroless nickel	2000	Conductive	-65 to +175°C	✓	Approved for MIL-DTL-38999L.
XB	Composite	Unplated Black		2000	Non-Conductive	-65 to +175°C	✓	Glenair's standard unplated composite.
XM	Composite	Electroless Nickel	AMS-C-26074	2000	Conductive	-65 to +175°C	✓	Glenair's standard electroless nickel finish over composite.
XMT	Composite	Nickel-PTFE	GMS-002 Class 2 Type II	2000	Conductive	-65 to +175°C	✓	Approved for MIL-DTL-38999L.
XO	Composite	Unplated Light Brown		2000	Non-Conductive	-65 to +175°C	✓	Not recommended for new projects. Use XB.
XW	Composite	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 3 over electroless nickel	2000	Conductive	-65 to +175°C		Glenair's standard olive drab cadmium finish over composite.
XZN	Composite	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	2000	Conductive	-65 to +175°C		Glenair's standard black zinc-nickel finish over composite.
Z1	Stainless Steel	Passivate	SAE-AMS-SAE-AMS-QQ-P-35 Type VI	1000	Conductive	-65 to +200°C	✓	Glenair's standard passivated stainless steel.
Z2	Aluminum	Gold	MIL-DTL-45204 Class 1 over electroless nickel	48	Conductive	-65 to +200°C	✓	Glenair's standard gold plating for space programs.
ZC	Stainless Steel	Zinc-Cobalt, Black	ASTM-B840, Grade 6	500	Conductive	-65 to +175°C		Glenair's standard zinc-cobalt over stainless steel.
ZCR	Stainless Steel	Zinc-Cobalt, Black	ASTM-B840, Grade 6	500	Conductive	-65 to +175°C	✓	RoHS version of ZC.
ZL	Stainless Steel	Electrodeposited Nickel	SAE-AMS-QQ-N-290 Class 1 Grade F	1000	Conductive	-65 to +200°C	✓	Used on hermetic connectors. Use ZM for other applications.
ZM	Stainless Steel	Electroless Nickel	AMS-C-26074 Class 1 Grade A	1000	Conductive	-65 to +200°C	✓	Glenair's preferred nickel-plated stainless steel.
ZMT	Stainless Steel	Nickel-PTFE	SAE AMS2454	1000	Conductive	-65 to +175°C	✓	Glenair's new 1000 Hour Grey over stainless steel.
ZN	Aluminum	Zinc-Nickel, Olive Drab	ASTM B841 Grade 5 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's standard olive drab zinc-nickel finish.
ZNU	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	1000	Conductive	-65 to +175°C		Glenair's standard black zinc-nickel finish.
ZR	Aluminum	Zinc-Nickel, Black	ASTM B841 Grade 5 over electroless nickel	1000	Conductive	-65 to +175°C	✓	Glenair's RoHs compliant black zinc-nickel.
ZU	Stainless Steel	Cadmium, Black	SAE-AMS-QQ-P-416 Type II Class 3	1000	Conductive	-65 to +175°C		Glenair's standard black cadmium over stainless steel.
ZW	Stainless Steel	Cadmium, Olive Drab	SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel	2000	Conductive	-65 to +175°C		Glenair's standard olive drab cadmium over stainless steel.