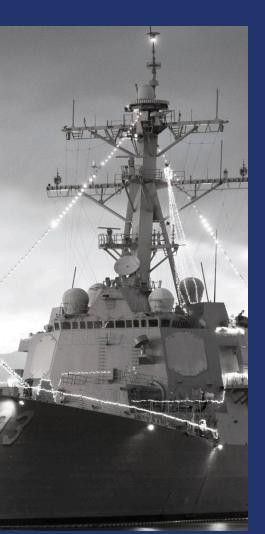
# MISSION-CRITICAL









M24749 QUALFIED AND GLENAIR SIGNATURE

## **Braided Ground Straps,** ESD Bonds, and Flexible Busbars

Lightweight, Corrosion-Resistant ArmorLite™ Microfilament Solutions Plus Industry-Standard Copper Material / QPL Straps, Joints, and Shunts SERIES 107
FLEXIBLE
BRAIDED STRAPS
GROUNDS, BONDS,
AND BUSBARS

Flexible braided straps for sea, air, and space grounding, ESD bonding, and busbar power distribution applications



Ultra flexible, lightweight ArmorLite microfilament ground straps and bonds

Flat and round cross-section straps, plus wire rope jumpers High current AC and DC flexible busbars and shunts

Harsh-environment insulation and jacketing available for enhanced user safety and short-circuit prevention

### Flexible Ground Straps, Bonds, and Busbars



### **Selection Guide**

### LIGHTWEIGHT STRAPS / BONDS

ArmorLite microfilament ESD bonds and ground straps



107-105 100% ArmorLite, our lightest weight braid

107-106 75% ArmorLite 25% Nickel Copper weight-saving conductive blend

107-107 50% ArmorLite 50% Nickel Copper weight-saving conductive blend

107-108 ArmorLite CF corrosion-free lightweight braid

## LOW-RESISTANCE STRAPS / BONDS

A-A-59569 soft-drawn braided copper ground straps



107-101 Tin copper material ground straps

107-102 Silver copper material ground straps

107-103 Nickel copper material ground straps

107-104 Stainless steel material ground straps

### MIL-SPEC GROUND STRAPS and BOND STRIPS

Glenair Signature designs with "better than mil-spec" configuration options



M24749 Type I wire rope ground strap

M24749 Type II flat CRES 316 strip

M24749 Type III flat copper strip

M24749 Type IV CRES 316 / Nickel 200 braided strap

107-500 M24749-IV style with configuration options

107-501 M24749-I type with lug hole / length options

**107-502** M24749-II type with configuration options

107-503 M24749-III type with configuration options

107-504 M24749-IV type with lug hole / length options

## TURBOFLEX WIRE ROPE JUMPERS

360° High flexibility



107-111 TurboFlex ultra-flexible rope-lay wire rope jumpers

### FLEXIBLE BUSBARS

Heavy-duty highcurrent braided busbar



107-277 Single-layer, 30AWG, braided busbar

107-278 Double-layer, 30AWG, braided busbar

107-435 Triple-layer, 30AWG, braided busbar

107-436 Quad-layer, 30AWG, braided busbar

107-110 5-10 layer, 30AWG, braided busbar

SUBMARINE GROUND STRAPS

IAW A-A-59569



107-086 Low-profile nickel-plated copper braid materials IAW ASTM B 355

BOLTS, BOSSES, AND LUGS IAW M24749



**107-505** Type I boss

**M1222** Bolt

851-005 Crimp Terminal Lugs for TurboFlex wire



### FLEXIBLE · DURABLE · CORROSION-FREE



Flexible nickel-clad microfilament stainless steel conductive braid material for ESD bond applications



ArmorLite is an innovative material ideally suited for ESD bonding as well as surge current grounding. The nickel-clad stainless steel microfilament material saves significant weight compared to standard QQ-B-575 copper material. A 100% ArmorLite bond strap, for example, is more than 70% lighter than a conventional plated copper solution of the same length.

Flexible, durable ArmorLite ESD bond straps are supplied in material blends optimized for the moderate current and resistance requirements of electrical potential bonding in aerospace applications. ArmorLite at 100% is the lightest weight of the four available blends. The 75/25 and 50/50 blends of ArmorLite and nickel copper improve current capacity for grounding applications at the cost of some additional weight. ArmorLite CF is a special construction of high-conductivity copper microfilaments with stainless steel cladding which offers optimal corrosion resistance, increased current capacity, and reduced resistance.

- Ultra-lightweight EMI/RFI braiding material for hightemperature applications -80°C to +260°C
- Microfilament stainless steel: 70% lighter than NiCu A-A-59569/QQB575
- Good electrical performance: shielding, conductivity, and grounding
- Commercial and military aerospace qualifications
- Superior flexibility and "windowing" resistance
- Strong: 70,000 psi (min.) tensile strength
- Outstanding lightning strike performance — ANSI/EIA-364-75-1997 Waveform 5B



### for Aerospace Bonding and Grounding Applications

#### **ARMORLITE MATERIAL COMPARISON MATRIX**

Glenair ArmorLite™ is an innovative microfilament braid material that offers outstanding flexibility, durability, corrosion resistance, and virtually zero windowing. Four different materials are available with 100% ArmorLite offering best weight reduction performance. For ground strap and ESD bond applications, all configurations of ArmorLite offer good to moderate current-carrying capacity and moderate low-resistance, low-voltage drop performance compared to conventional copper wire braided ground straps. For most grounding and bonding applications, Glenair recommends short, wide strap configurations for best low-resistance performance.

ArmorLite™ Ground Strap / ESD Bond Comparison Matrix									
Performance Feature ArmorLite 100% ArmorLite 75%/25% ArmorLite 50%/50% ArmorLite CF									
Weight reduction	Best	Good	Moderate	Good					
Low Resistance	Moderate	Good	Best	Good					
Current-Carrying Capacity	Moderate	Good	Best	Good					
Corrosion Resistance	Good	Good	Good	Best					

ArmorLite™ Material Performance Test Matrix								
DESCRIPTION	REQUIREMENT	PROCEDURE	REPORT					
Altitude test 27,000 ft (5 PSIA nom.)	2.5% min.	RTCA DO-160F, Table 4-1, 4-2 Cat/ C temp. spec	ARM-103					
Operating Temperature	-80°C to +260°C	(Shielding effectiveness 1000 hours)	ARM-103					
Braid Resistivity test, Pre and Post	Test pre/post-5 cycles-minimal disparity per spec.	EIA-364-32D IAW AS85049	ARM-110/1					
Surface Transfer Impedance	Transfer Impedance (10.0 kHz ~ 1.0 GHz)	IEC 62153-4-3 min. 90% optical coverage	GT-17-263					
Shield Effectiveness test, Pre and Post	Screening Attenuation (0 ~ 4.00 GHz)	IEC 62153-4-4 min. 90% optical coverage	GT-17-263					
Tensile/ Pull Strength	220 lbs. (min.). No anomalies within 8% - 10% of pre test for variable sizes	Glenair ATP- 183. 0 lbs. to 90 lbs, to 150 lbs, to 220lbs @ speed of 0.25 inches/min	ARM-105					
Lightning Current Test	Glenair Qual. Test Plan 191/ DC resistance/voltage criteria per DO-160F Level for 3 sizes up to 30Ka.	ANSI/EIA-364-75-1977 Wave Form 5B SAE/ARP5416 Section 6.3 Waveform 1, 3 (1, 10MHz) and 5A	ARM-110 ARM-112					
Salt Spray Test	DC Resistance IAW AS85049 .5 milliohm.  No evidence of base metal on braid	ASTM B117-09 Sodium Chloride 5% 500 hrs.	ARM-100					
Vibration Resistance	EAI Test Report 33247. DO160 section 8 Cat. R Vib. Curves E1	DO-160F RTCA/DO-160F, Section 9, Fig. 8-4. Curve E1 3 sizes – 3 hours on each axis.	ARM-111					
Thermal Shock Cycling test and Resistivity	No adverse effects in visual inspection or resistance after 50 cycles	EIA-364-32D, Table 3 Test condition V -65°C to +175°C	ARM-113					
Abrasion and Plating test	DC Resistance IAW AS 85049. Glenair internal QTR-003	ATP 180 20 continuous @ 6 cycles/min. over 3 arms with .030 radiused edges	ARM-107					
Fluid Immersion Test	Material compatibility – see table below	Customer/AS4373D method 601 Mod	ARM-106					
Flex Test	2 Cycles: starting 0° over vertical ctr. line across to 180° cycle. Total cycles of 25633	Glenair ATP 179	ARM-112					

ArmorLite™ Material Fluid Resistance Testing										
Test Fluid	Test Temp °C	Test Temp °F	Immersion Time(h)	Requirement	Procedure					
MIL-L-23699, Lubricating Oil, Aircraft Turbine Engine, Synthetic Base	48-50	118-122	20							
MIL-H-5606, Hydraulic Fluid, Petroleum Base, Aircraft Missile, and Ordnance	48-50	118-122	20							
TTI-I-735, Solvent, Isopropyl Alcohol	20-25	68-77	168							
ASTM D 1153, Methyl Isobutyl Ketone (For use in organic coatings)	20-25	68-77	168		SAE AS1241 Table					
MIL-DTL-5624, Turbine Fuel, Aviation, Grade JP-4 either or MIL-T-83133, JP-8	20-25	68-77	168		15/Mil-Std 810F					
SAE AMS1424, Anti-Icing and Deicing-Defrosting Fluid, undiluted	48-50	118-122	20		Method 504					
SAE AMS1424, Anti-Icing and Deicing-Defrosting Fluid, diluted 60/40 (fluid/water) ratio. Supersedes Coolanol 25 Item Q	48-50	118-122	20	No fraying, DC resistance within	(modified), for all Substances.					
MIL-C-43616, Cleaning Compound, Aircraft Surface	48-50	118-122	20	limits (AS85049	Additional					
SAE AS 1241, Fire Resistant Hydraulic Fluid for Aircraft	48-50	118-122	20	paragraph 4.6.3)	conformance					
MIL-L-7808, Lubricating Oil, Aircraft Turbine Engine, Synthetic Base	118-121	244-250	30		to Test Criteria					
MIL-C-87937, Cleaning Compound, Aircraft Surface, Alkaline, undiluted	63-68	145-154	20		AS4373D method					
MIL-C-87937, Cleaning Compound, Aircraft Surface, Alkaline Waterbase, diluted 25/75 (fluid/water) ratio	63-68	145-154	20		601 Mod					
TT-S-735, Standard Test Fluids; Hydrocarbon, Type I, II, III, VII	20-25	68-77	168							
MIL-PRF-87252, Coolant Fluid, Hydrolytically Stable, Dielectric	20-25	68-77	168							



### 107-105 100% ArmorLite SS Microfilament Braid Configurable Crimp Lugs, Optional Insulation



HOW TO ORDER											
Sample Part Number	r 107-105 S -RD -64 A E										
Product Series	100% ArmorLite ground strap										
Braid Layers	<b>S</b> = Single <b>D</b> = Double										
Lug Configuration	-SQ = Square Lugs -RD = Radiused Lugs -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up-Up										
Size Code	12 – 64, See Dimensions Tables										
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		noles a	re requir	ed,						
Lug 2 Hole	2 Hole A – M, See Table										
Length	In inches										
Insulation Sleeving	<b>S</b> = Black sleeving over braid <b>C</b> = Cl <b>Omit</b> = No sleeving	ear sl	eeving	over bra	id						



#### **GROUND STRAP FEATURES**

- For grounding airframe sections, dissipating static build-up in composite structures, dissipating lightning strike energy, and grounding individual moving parts
- 70+% weight savings over standard NiCu braid
- Approved for use by major airframe and equipment manufacturers
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

	<b>HOLE SIZE CO</b>	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

SINGLE-LAYER ARMORLITE GROUND STRAP									
Size Code	AWG Equivalent (ref.)1	Current Rating (Amps)*	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)				
12	17–16	17	54.0	В	11.5				
16	15	23	36.0	D	16.5				
20	15	24	35.0	Е	18.0				
24	14–13	31	27.5	F	21.5				
32	11–10	43	14.5	G	43.0				
40	10	50	12.5	J	52.5				
48	9	63	10.0	L	64.5				
64	8–7	80	7.0	М	85.0				
			,						

	DOUBLE-LAYER ARMORLITE GROUND STRAP											
Size Code	AWG Equivalent (ref.)*	Current Rating*	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)							
12	14–13	27	27.0	В	23.0							
16	12	36	18.0	D	33.0							
20	12	36	17.5	Е	36.0							
24	11–10	43	14.0	F	43.0							
32	8–7	70	7.5	G	86.0							
40	7	75	6.5	J	105.0							
48	6	92	5.0	L	129.0							
64	5–4	111	3.5	М	170.0							

#### **MATERIAL/FINISH**

- ArmorLite, stainless steel 316L / nickel plate
- Lugs Copper / nickel plate per AMS-C-26074
- Sleeving per M23053 or equivalent

#### **NOTES**

- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

64

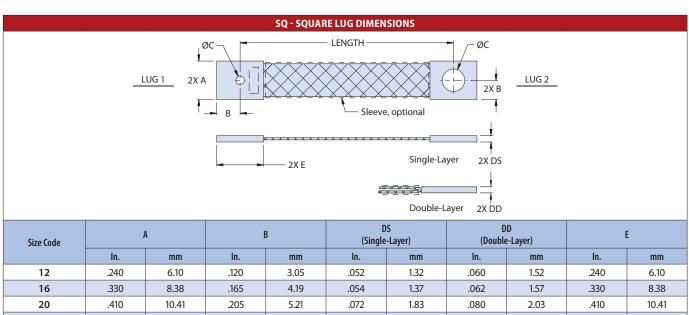
1.180

29.97

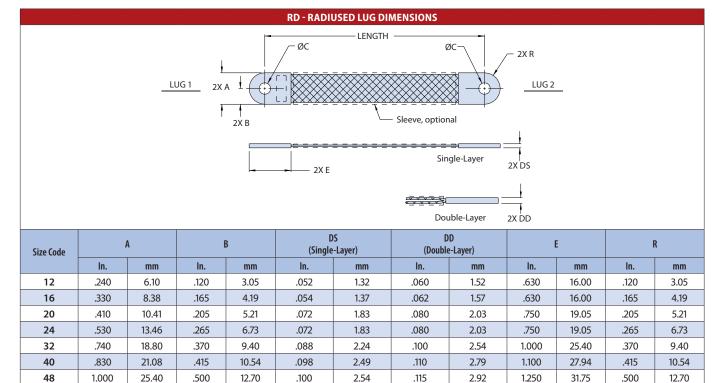
## **ArmorLite<sup>™</sup> ESD Bond and Ground Straps**



## 107-105 100% ArmorLite SS Microfilament Braid Square Lugs / Radiused Lugs



Size Code					(Single	-Layer)	(Double	e-Layer)		
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.120	3.05	.052	1.32	.060	1.52	.240	6.10
16	.330	8.38	.165	4.19	.054	1.37	.062	1.57	.330	8.38
20	.410	10.41	.205	5.21	.072	1.83	.080	2.03	.410	10.41
24	.530	13.46	.265	6.73	.072	1.83	.080	2.03	.530	13.46
32	.740	18.80	.370	9.40	.088	2.24	.100	2.54	.740	18.80
40	.830	21.08	.415	10.54	.098	2.49	.110	2.79	.830	21.08
48	1.000	25.40	.500	12.70	.100	2.54	.115	2.92	1.000	25.40
64	1.180	29.97	.590	14.99	.100	2.54	.115	2.92	1.180	29.97
\										



2.54

1.400

35.56

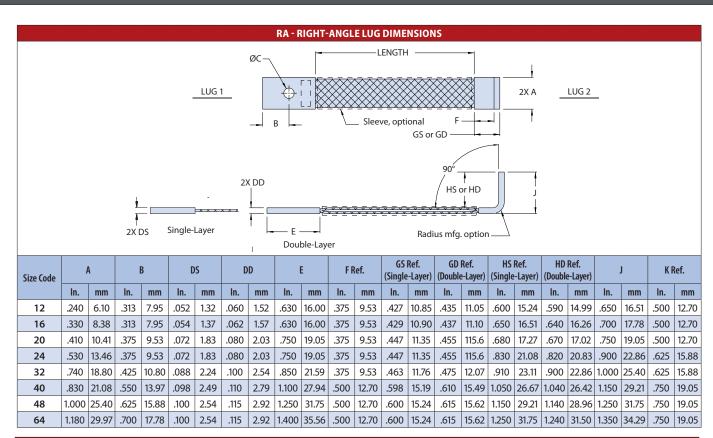
.100

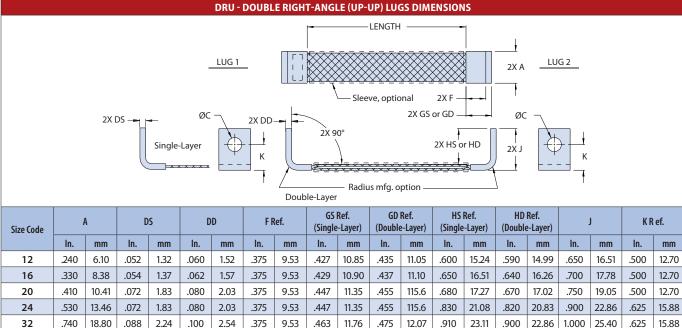
14.99

14.99



## 107-105 100% ArmorLite SS Microfilament Braid Single / Double Right-Angle Lugs





.610

.615

.615

15.49

15.62

15.62

1.050

1.150

1.250

26.67

29.21

1.040

1.140

26.42

28.96

31.50

1.150

1.250

29.21

31.75

34.29

.750

.750

19.05

19.05

19.05

40

48

64

.830

1.000

1.180

21.08

25.40

29.97

.098

.100

2.49

2.54

.110

.115

2.79

2.92

2.92

.500

.500

.500

12.70

12.70

12.70

.598

.600

.600

15.19

15.24



## 107-106 75% SS ArmorLite / 25% Nickel/Copper Braid Configurable Crimp Lugs, Optional Insulation





#### **GROUND STRAP FEATURES**

- For grounding airframe sections, dissipating static build-up in composite structures, dissipating lightning strike energy, and grounding individual moving parts
- Saves weight compared to standard NiCu braid
- Approved for use by major airframe and equipment manufacturers
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

#### **MATERIAL/FINISH**

- 75% ArmorLite, stainless steel
   316L / nickel plate
   25% Copper / nickel plate
- Lugs Copper / nickel plate per AMS-C-26074
- Sleeving per M23053 or equivalent

	HOW TO ORDER										
Sample Part Number	107-106	E	-6	S							
Product Series	75% / 25% ArmorLite ground strap										
Braid Layers	<b>S</b> = Single <b>D</b> = Double										
Lug Configuration	-SQ = Square Lugs -RD = Radiused Lugs -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up-Up										
Size Code	12 – 64, See Dimensions Tables										
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,						
Lug 2 Hole	ug 2 Hole A – M, See Table										
Length	In inches										
Insulation Sleeving	<b>S</b> = Black sleeving over braid <b>C</b> = Cl <b>Omit</b> = No sleeving	ear sl	eeving	over bra	id			'			

	HOLE SIZE CO	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

	SINGLE-LAYER ARMORLITE GROUND STRAP									
Size Code	AWG Equivalent (ref.)1	Current Rating (Amps)*	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)					
12	16–15	24	22.5	В	13.0					
16	14	35	15.5	D	20.0					
20	14	36	15.0	Е	20.5					
24	13–12	47	11.0	F	27.0					
32	11–10	56	8.0	G	47.5					
40	10	67	7.0	J	57.0					
48	9	78	5.0	L	71.0					
64	7	102	4.0	М	88.0					
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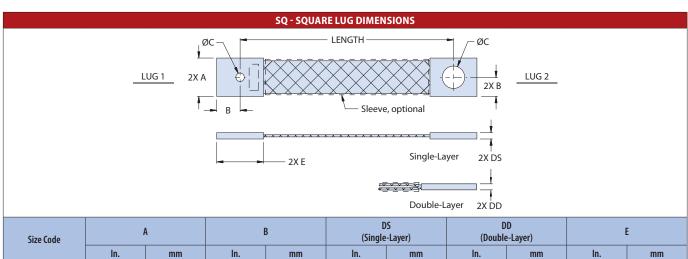
	DOUBLE-LAYER ARMORLITE GROUND STRAP											
Size Code	AWG Equivalent (ref.) <sup>1</sup>	Current Rating <sup>2</sup>	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)							
12	13–12	41	11.5	В	26.0							
16	11	54	8.0	D	40.0							
20	11	55	7.5	Е	41.0							
24	10-9	66	5.5	F	54.0							
32	7	94	4.0	G	95.0							
40	7	102	3.5	J	114.0							
48	6–5	125	2.5	L	142.0							
64	4	135	2.0	М	176.0							

#### **NOTES**

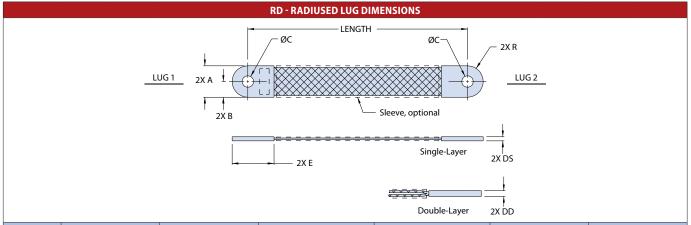
- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



## 107-106 75% SS ArmorLite / 25% Nickel/Copper Braid Square Lugs / Radiused Lugs



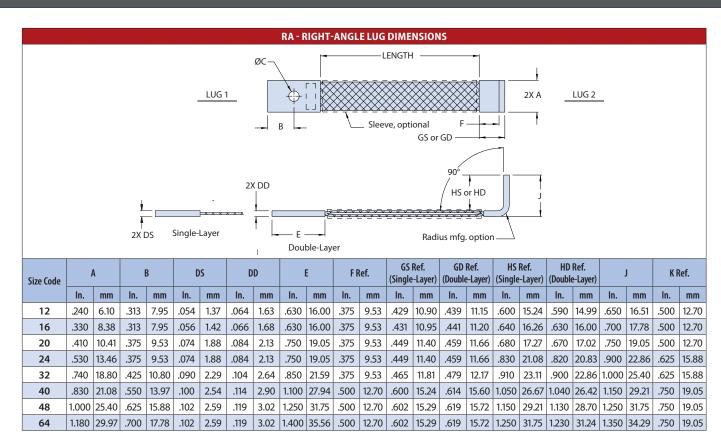
Size Code	A		В			S -Layer)		D e-Layer)	E		
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	
12	.240	6.10	.120	3.05	.054	1.37	.064	1.63	.240	6.10	
16	.330	8.38	.165	4.19	.056	1.42	.066	1.68	.330	8.38	
20	.410	10.41	.205	5.21	.074	1.88	.084	2.13	.410	10.41	
24	.530	13.46	.265	6.73	.074	1.88	.084	2.13	.530	13.46	
32	.740	18.80	.370	9.40	.090	2.29	.104	2.64	.740	18.80	
40	.830	21.08	.415	10.54	.100	2.54	.114	2.90	.830	21.08	
48	1.000	25.40	.500	12.70	.102	2.59	.119	3.02	1.000	25.40	
64	1.180	29.97	.590	14.99	.102	2.59	.119	3.02	1.180	29.97	

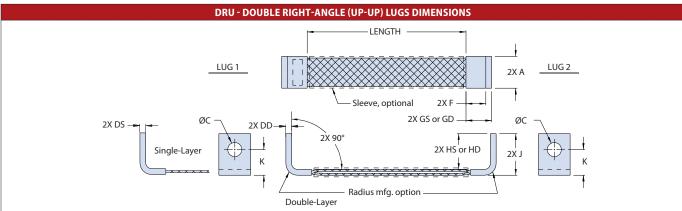


Size Code		A		В		DS (Single-Layer)		D e-Layer)		E	R	
	ln.	mm	In.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.120	3.05	.054	1.37	.064	1.63	.630	16.00	.120	3.05
16	.330	8.38	.165	4.19	.056	1.42	.066	1.68	.630	16.00	.165	4.19
20	.410	10.41	.205	5.21	.074	1.88	.084	2.13	.750	19.05	.205	5.21
24	.530	13.46	.265	6.73	.074	1.88	.084	2.13	.750	19.05	.265	6.73
32	.740	18.80	.370	9.40	.090	2.29	.104	2.64	1.000	25.40	.370	9.40
40	.830	21.08	.415	10.54	.100	2.54	.114	2.90	1.100	27.94	.415	10.54
48	1.000	25.40	.500	12.70	.102	2.59	.119	3.02	1.250	31.75	.500	12.70
64	1.180	29.97	.590	14.99	.102	2.59	.119	3.02	1.400	35.56	.590	14.99



## 107-106 75% SS ArmorLite / 25% Nickel/Copper Braid Single / Double Right-Angle Lugs



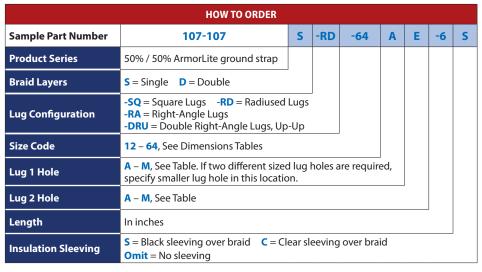


Size Code	A		D	DS DD		F Ref. GS Ref. (Single-Layer)				HS Ref. HD Ref. (Single-Layer)		J		K R ef.						
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.054	1.37	.064	1.63	.375	9.53	.429	10.90	.439	11.15	.600	15.24	.590	14.99	.650	16.51	.500	12.70
16	.330	8.38	.056	1.42	.066	1.68	.375	9.53	.431	10.95	.441	11.20	.640	16.26	.630	16.00	.700	17.78	.500	12.70
20	.410	10.41	.074	1.88	.084	2.13	.375	9.53	.449	11.40	.459	11.66	.680	17.27	.670	17.02	.750	19.05	.500	12.70
24	.530	13.46	.074	1.88	.084	2.13	.375	9.53	.449	11.40	.459	11.66	.830	21.08	.820	20.83	.900	22.86	.625	15.88
32	.740	18.80	.090	2.29	.104	2.64	.375	9.53	.465	11.81	.479	12.17	.910	23.11	.900	22.86	1.000	25.40	.625	15.88
40	.830	21.08	.100	2.54	.114	2.90	.500	12.70	.600	15.24	.614	15.60	1.050	26.67	1.040	26.42	1.150	29.21	.750	19.05
48	1.000	25.40	.102	2.59	.119	3.02	.500	12.70	.602	15.29	.619	15.72	1.150	29.21	1.130	28.70	1.250	31.75	.750	19.05
64	1.180	29.97	.102	2.59	.119	3.02	.500	12.70	.602	15.29	.619	15.72	1.250	31.75	1.230	31.24	1.350	34.29	.750	19.05



## 107-107 50% SS ArmorLite / 50% Nickel/Copper Braid Configurable Crimp Lugs, Optional Insulation





(ref.)1

15

Code

12

20

24

32

40



#### **GROUND STRAP FEATURES**

- For grounding airframe sections, dissipating static build-up in composite structures, dissipating lightning strike energy, and grounding individual moving parts
- Saves weight compared to standard NiCu braid
- Approved for use by major airframe and equipment manufacturers
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

	<b>HOLE SIZE CO</b>	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

16	13	47	10.0	D	27.0
20	13	47	9.0	Е	28.0
24	12–11	58	7.0	F	36.0
32	10	72	5.5	G	56.0
40	10-9	76	5.0	J	60.5
48	9–8	84	4.5	L	100.5
64	7	110	2.5	Α.Α.	100.0
04	/	119	2.5	М	109.0
04	,		ORLITE GROU		109.0
Size Code	,				Braid Weight (g/m)
Size	DOUBLE AWG Equivalent	-LAYER ARM Current	ORLITE GROU Nom. Resistance	ND STRAP Max. Lug	Braid Weight

**SINGLE-LAYER ARMORLITE GROUND STRAP** 

m0hm/m

14.0

4.5

3.5

3.0

2.5

2.3

1.5

Max. Lug

Code

Ε

F

G

L

**Braid Weight** 

(g/m)

18.5

72.0

112.0

121.0

201.0

218.0

AWG Equivalent | Current Rating | Nom. Resistance

(Amps)\*

32

81

103

112

139

159

#### MATERIAL/FINISH

- 50% ArmorLite, stainless steel
   316L / nickel plate
   50% Copper / nickel plate
- Lugs Copper / nickel plate per AMS-C-26074
- Sleeving per M23053 or equivalent

### NOTES

\* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.

9-8

7

7-6

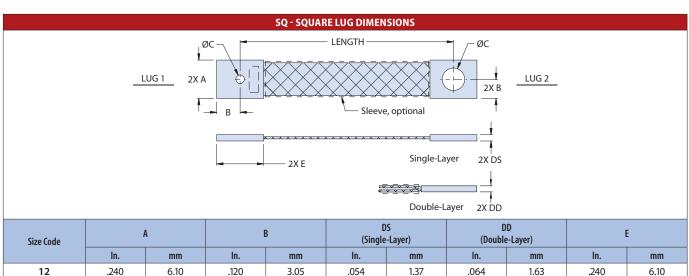
5

4

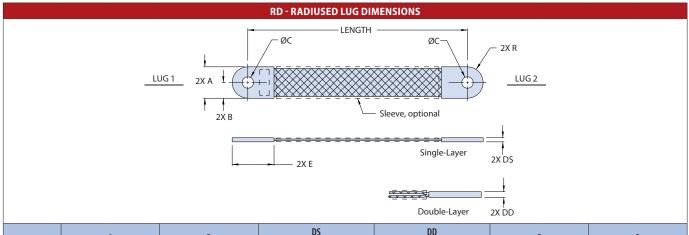
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



## 107-107 50% SS ArmorLite / 50% Nickel/Copper Braid Square Lugs / Radiused Lugs



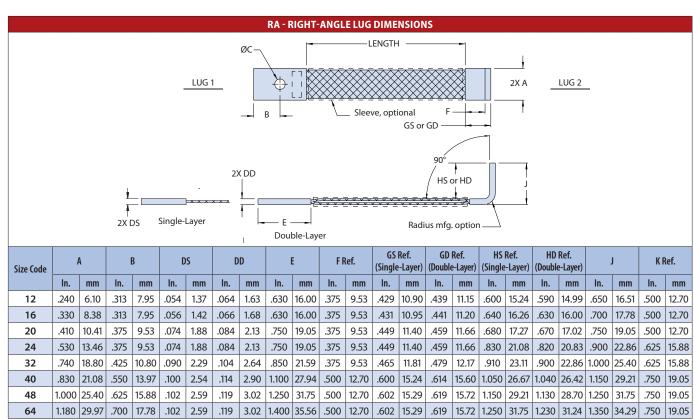
Size Code	A		В			S -Layer)	Double (Double	D e-Layer)	E		
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	
12	.240	6.10	.120	3.05	.054	1.37	.064	1.63	.240	6.10	
16	.330	8.38	.165	4.19	.056	1.42	.066	1.68	.330	8.38	
20	.410	10.41	.205	5.21	.074	1.88	.084	2.13	.410	10.41	
24	.530	13.46	.265	6.73	.074	1.88	.084	2.13	.530	13.46	
32	.740	18.80	.370	9.40	.090	2.29	.104	2.64	.740	18.80	
40	.830	21.08	.415	10.54	.100	2.54	.114	2.90	.830	21.08	
48	1.000	25.40	.500	12.70	.102	2.59	.119	3.02	1.000	25.40	
64	1.180	29.97	.590	14.99	.102	2.59	.119	3.02	1.180	29.97	

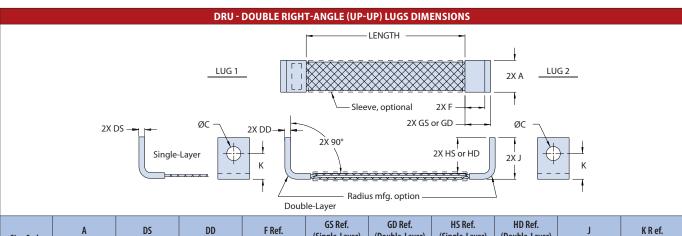


Size Code	A		В		DS (Single-Layer)		D (Double	D e-Layer)	E		R	
	In.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.120	3.05	.054	1.37	.064	1.63	.630	16.00	.120	3.05
16	.330	8.38	.165	4.19	.056	1.42	.066	1.68	.630	16.00	.165	4.19
20	.410	10.41	.205	5.21	.074	1.88	.084	2.13	.750	19.05	.205	5.21
24	.530	13.46	.265	6.73	.074	1.88	.084	2.13	.750	19.05	.265	6.73
32	.740	18.80	.370	9.40	.090	2.29	.104	2.64	1.000	25.40	.370	9.40
40	.830	21.08	.415	10.54	.100	2.54	.114	2.90	1.100	27.94	.415	10.54
48	1.000	25.40	.500	12.70	.102	2.59	.119	3.02	1.250	31.75	.500	12.70
64	1.180	29.97	.590	14.99	.102	2.59	.119	3.02	1.400	35.56	.590	14.99



## 107-107 50% SS ArmorLite / 50% Nickel/Copper Braid Single / Double Right-Angle Lugs





Size Code	A		DS [		D	F Ref.		(Single-Layer)		(Double	Ket. e-Layer)	(Single-Layer)		(Double-Layer)		J		K R ef.		
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.054	1.37	.064	1.63	.375	9.53	.429	10.90	.439	11.15	.600	15.24	.590	14.99	.650	16.51	.500	12.70
16	.330	8.38	.056	1.42	.066	1.68	.375	9.53	.431	10.95	.441	11.20	.640	16.26	.630	16.00	.700	17.78	.500	12.70
20	.410	10.41	.074	1.88	.084	2.13	.375	9.53	.449	11.40	.459	11.66	.680	17.27	.670	17.02	.750	19.05	.500	12.70
24	.530	13.46	.074	1.88	.084	2.13	.375	9.53	.449	11.40	.459	11.66	.830	21.08	.820	20.83	.900	22.86	.625	15.88
32	.740	18.80	.090	2.29	.104	2.64	.375	9.53	.465	11.81	.479	12.17	.910	23.11	.900	22.86	1.000	25.40	.625	15.88
40	.830	21.08	.100	2.54	.114	2.90	.500	12.70	.600	15.24	.614	15.60	1.050	26.67	1.040	26.42	1.150	29.21	.750	19.05
48	1.000	25.40	.102	2.59	.119	3.02	.500	12.70	.602	15.29	.619	15.72	1.150	29.21	1.130	28.70	1.250	31.75	.750	19.05
64	1.180	29.97	.102	2.59	.119	3.02	.500	12.70	.602	15.29	.619	15.72	1.250	31.75	1.230	31.24	1.350	34.29	.750	19.05

## Armorlite CF

## ArmorLite<sup>™</sup> ESD Bond and Ground Straps

## 107-108 ArmorLite CF Microfilament Copper Braid Configurable Crimp Lugs, Optional Insulation





#### **GROUND STRAP FEATURES**

- Broad temperature tolerance, -80°C to +400°C
- Corrosion / harsh environment resistant
- For grounding airframe sections, dissipating static build-up in composite structures, dissipating lightning strike energy, and grounding individual moving parts
- Saves weight compared to standard NiCu braid
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

#### **MATERIAL/FINISH**

- ArmorLite CF, copper-stainless steel 316L
- Lugs Stainless steel / nickel plate per AMS-C-26074
- Sleeving per M23053 or equivalent

HOW TO ORDER									
Sample Part Number	107-108	S	-RD	-64	A	Е	-6	S	
Product Series	ArmorLite CF ground strap								
Braid Layers	<b>S</b> = Single <b>D</b> = Double								
Lug Configuration	-SQ = Square Lugs -RD = Radiused -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up	,							
Size Code	12 – 64, See Dimensions Tables								
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,				
Lug 2 Hole	A – M, See Table								
Length In inches									
Insulation Sleeving  S = Black sleeving over braid  Omit = No sleeving  C = Clear sleeving over braid									

LUG	<b>HOLE SIZE CO</b>	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

	SINGLE-LAYER ARMORLITE CF GROUND STRAP													
Size Code	AWG Equivalent (ref.) <sup>1</sup>	Current Rating (Amps)*	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)									
12	17–16	24	28.0	В	14.0									
16	15	32	19.5	D	20.0									
20	15	34	16.0	Е	21.0									
24	14–13	48	13.0	F	28.0									
32	11–10	58	6.0	G	52.5									
40	10	61	4.0	J	59.0									
48	9–8	72	3.5	L	76.0									
64	8–7	94	2.5	М	104.5									

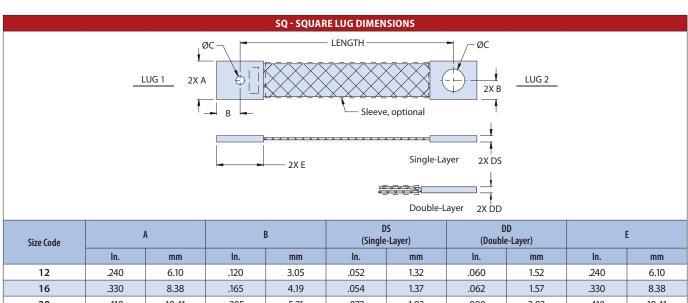
	DOUBLE-LAYER ARMORLITE CF GROUND STRAP													
Size Code	AWG Equivalent (ref.) <sup>1</sup>	Current Rating <sup>2</sup>	Nom. Resistance m0hm/m	Max. Lug Code	Braid Weight (g/m)									
12	14–13	37	14.0	В	28.0									
16	12–11	48	10.0	D	40.0									
20	12–11	49	8.0	Е	42.0									
24	11–10	58	6.5	F	56.0									
32	8–7	90	3.0	G	105.0									
40	7	97	2.0	J	118.0									
48	6–5	117	1.8	L	152.0									
64	5–4	140	1.5	М	209.0									

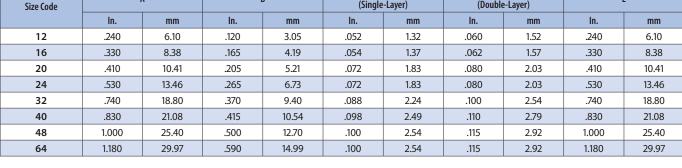
#### **NOTES**

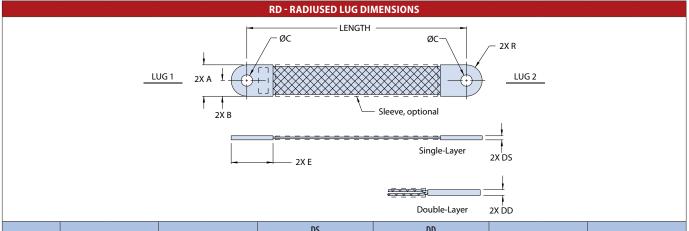
- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



## 107-108 ArmorLite CF Microfilament Copper Braid Square Lugs / Radiused Lugs





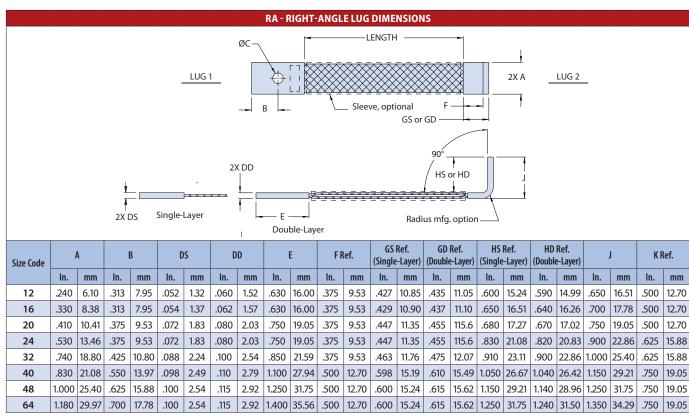


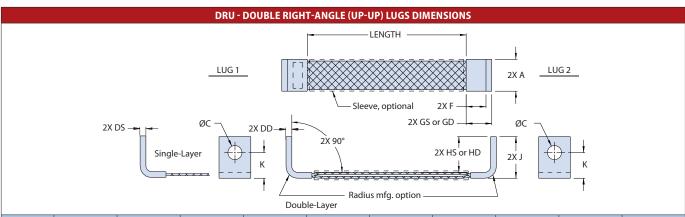
Size Code	1	4	I	В	ט Single)	-Layer)	(Double	_		E	ı	R
	In.	mm	In.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	.240	6.10	.120	3.05	.052	1.32	.060	1.52	.630	16.00	.120	3.05
16	.330	8.38	.165	4.19	.054	1.37	.062	1.57	.630	16.00	.165	4.19
20	.410	10.41	.205	5.21	.072	1.83	.080	2.03	.750	19.05	.205	5.21
24	.530	13.46	.265	6.73	.072	1.83	.080	2.03	.750	19.05	.265	6.73
32	.740	18.80	.370	9.40	.088	2.24	.100	2.54	1.000	25.40	.370	9.40
40	.830	21.08	.415	10.54	.098	2.49	.110	2.79	1.100	27.94	.415	10.54
48	1.000	25.40	.500	12.70	.100	2.54	.115	2.92	1.250	31.75	.500	12.70
64	1.180	29.97	.590	14.99	.100	2.54	.115	2.92	1.400	35.56	.590	14.99

## ARMORLITE CF

### **ArmorLite<sup>™</sup> ESD Bond and Ground Straps**

## 107-108 ArmorLite CF Microfilament Copper Braid Single / Double Right-Angle Lugs





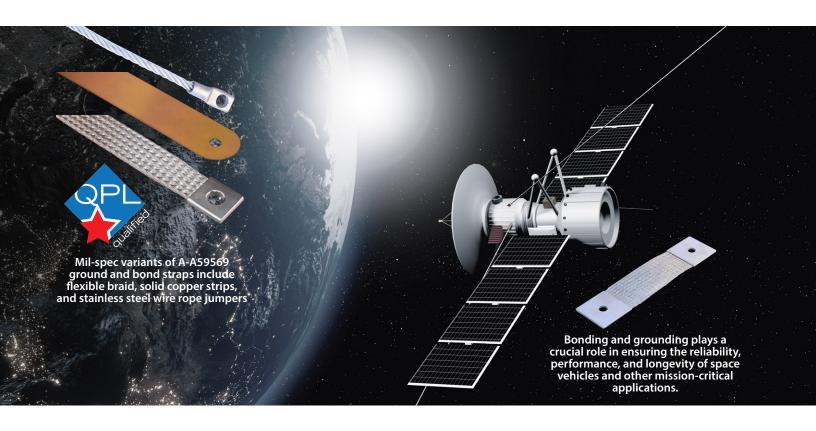
Size Code	1	A	D	S	D	D	FF	tef.	GS ( (Single	Ref. -Layer)	GD Ref. (Double-Layer)				HS Ref. (Single-Layer)				HD Ref. (Double-Layer)				J		K R ef.	
		ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm					
	12	.240	6.10	.052	1.32	.060	1.52	.375	9.53	.427	10.85	.435	11.05	.600	15.24	.590	14.99	.650	16.51	.500	12.70					
	16	.330	8.38	.054	1.37	.062	1.57	.375	9.53	.429	10.90	.437	11.10	.650	16.51	.640	16.26	.700	17.78	.500	12.70					
	20	.410	10.41	.072	1.83	.080	2.03	.375	9.53	.447	11.35	.455	115.6	.680	17.27	.670	17.02	.750	19.05	.500	12.70					
	24	.530	13.46	.072	1.83	.080	2.03	.375	9.53	.447	11.35	.455	115.6	.830	21.08	.820	20.83	.900	22.86	.625	15.88					
	32	.740	18.80	.088	2.24	.100	2.54	.375	9.53	.463	11.76	.475	12.07	.910	23.11	.900	22.86	1.000	25.40	.625	15.88					
	40	.830	21.08	.098	2.49	.110	2.79	.500	12.70	.598	15.19	.610	15.49	1.050	26.67	1.040	26.42	1.150	29.21	.750	19.05					
	48	1.000	25.40	.100	2.54	.115	2.92	.500	12.70	.600	15.24	.615	15.62	1.150	29.21	1.140	28.96	1.250	31.75	.750	19.05					
	64	1.180	29.97	.100	2.54	.115	2.92	.500	12.70	.600	15.24	.615	15.62	1.250	31.75	1.240	31.50	1.350	34.29	.750	19.05					

SERIES 107
FLEXIBLE
BRAIDED STRAPS
GROUNDS, BONDS,
AND BUSBARS

### LOW-RESISTANCE, FLEXIBLE

## A-A-59569 Braided Copper Ground Straps and ESD Bonds

Tin, nickel, and silver-plated copper / stainless steel designs—commercial and mil-spec



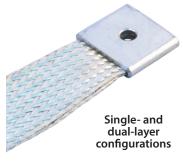
Equipotential Bonding: Auxiliary bond straps are used to establish an equipotential bonding network throughout the a satellite, aircraft, or missile system structure. Flexible bonds ensure that all metallic components within the system are electrically connected to each other and to the vehicle's main structure. This helps to prevent potential differences and minimize the risk of electrical arcing or damage due to electrostatic discharge (ESD).

Grounding for Fault Current Dissipation: Ground straps, as compared to bonds, are specifically designed to provide a low-resistance path for fault currents to be safely conducted away from sensitive electronics and subsystems. They serve to dissipate fault currents, transient events, and static discharge to prevent damage and ensure the reliable operation of the satellite's electrical system. Ground straps are sized by the user to safely carry the maximum expected fault current without overheating or sustaining damage.

- Standard duty and weight Plated copper and stainless steel ground straps IAW A-A-59569
- Low-resistance electrical performance for both grounding and bonding applications
- Robust current-carrying capacity IAW military and commercial aerospace requirements
- Space flight legacy and TRL 9 status for nickel and silver-plated configurations
- Outstanding availability: both catalog and custom solutions routinely stocked in Glenair's same-day inventory

### A-A-59569 Soft-Drawn Copper Braid Straps

### For Aerospace Bonding and Grounding Applications







Electrical Structure Network and Metallic Bond Network ground strap material selection depends on electrical resistance, current, and EMI shielding requirements, as well as environmental and regulatory standards. The following configurations of Glenair ground straps built IAW A-A-59569 have been fully tested and qualified.

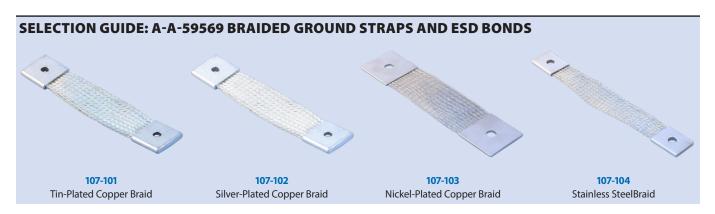
**Conductive and dissipative materials** such as copper, are selected for their low resistance while dissipative materials such as steel are selected for their ability to discharge electromagnetic energy in the form of heat. The selection of the correct mix of conductive and dissipative materials for ground straps in aircraft depends on multiple factors including durability, weight and space requirements, as well as galvanic compatibility with other materials. Industry standards also dictate material selection for use in aircraft ground straps.

**Tin-plated copper** material is commonly used in most aerospace applications, and combines the excellent conductivity of copper with the good corrosion resistance of tin plating. This material is not recommended for space applications.

**Silver-plated copper** may be selected for applications where highest conductivity, excellent resistance to corrosion, and best low-resistance electrical performance are required. This material is recommended for space flight applications as well as non-SWAMP zone aircraft applications.

**Nickel-plated copper** is selected for excellent conductivity and best corrosion protection of these soft-drawn copper plated braids. This material is recommended for radiation resistance in space flight applications, as well as best corrosion-resistance in SWAMP zone aircraft applications.

Finally, **stainless steel** is the most durable and corrosion–resistant material and should be selected for applications where high strength and resistance to environmental factors such as high heat, moisture, and salt are required. Stainless steel however is not as conductive as any of the copper–core material types, and exhibits higher electrical resistance than may be acceptable for certain bonding and grounding applications.





## 107-101 Tin-Plated Copper Braid Configurable Crimp Lugs, Optional Insulation



	HOW TO ORDER									
Sample Part Number	107-101	S	-RD	-2000	Α	Е	-6	S		
Product Series	Tin-plated copper ground strap									
Braid Layers	<b>S</b> = Single <b>D</b> = Double									
Lug Configuration	-SQ = Square Lugs -RD = Radiused -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up		,							
Size Code	125 – 2000, See Dimensions Tables									
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,					
Lug 2 Hole	A – M, See Table									
Length	In inches	inches								
Insulation Sleeving	ving S = Black sleeving over braid Omit = No sleeving									

Size

Code

125

203

250

437

500

1000

1500

CSA

(KCMIL)

3.0

7.8

9.6

10.8

13.2

19.2

23.4

(mm<sup>2</sup>)

1.5

4.0

49

5.5

6.7

9.7

11.9

G	ROUND STRAP FEATURES	
•	Soft-drawn tin-plated copper	
	braid	

- EMI frequency effective from 10KHz to 1 GHz
- 150°C temperature tolerant
- 125 lbs. pull strength (.500 dia. braid)
- 48 hours salt spray corrosion resistant
- Good abrasion resistance
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

LUG	<b>HOLE SIZE CO</b>	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

			_			
2000	28.8	14.6	6–5	143	1.55	M
		DOUBL	E-LAYER BR	AID GROUNI	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	6.0	3.0	13–12	54	5.95	В
203	15.6	8.0	9–8	98	2.35	D
250	19.2	9.8	8–7	111	1.95	Е
437	21.6	11.0	7	120	1.70	F
500	26.4	13.4	6	136	1.50	G
1000	38.4	19.4	5–4	171	1.10	J
1500	46.8	23.8	4–3	193	0.95	L
2000	F7.6	20.2	2.2	220	0.00	

**SINGLE-LAYER BRAID GROUND STRAP** 

(Amps)\*\*

35

63

72

78

88

111

126

Current Rating Nom. Resistance Max. Lug

m0hm/m

11.90

4.70

3.90

3.40

2.95

2.20

1.90

Code

В

D

Ε

F

G

Ref. AWG

Equivalent\*

16-15

12-11

11-10

10

8-7

#### **MATERIAL/FINISH**

- 36 AWG Copper / tin plate IAW A-A-59569
- Lugs Copper / tin plate per ASTM B545
- Sleeving per M23053 or equivalent

#### **NOTES**

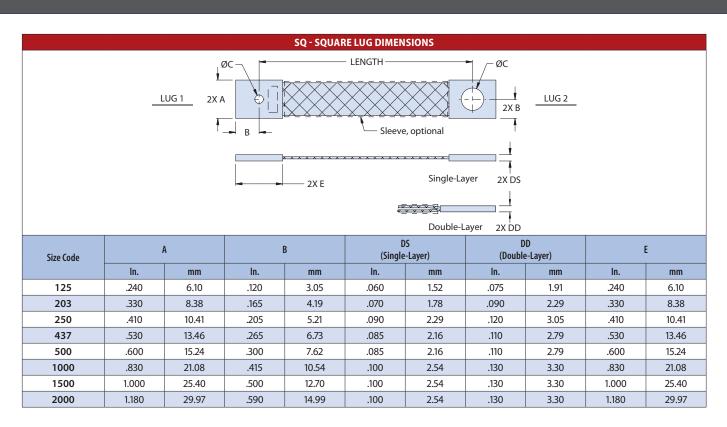
- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

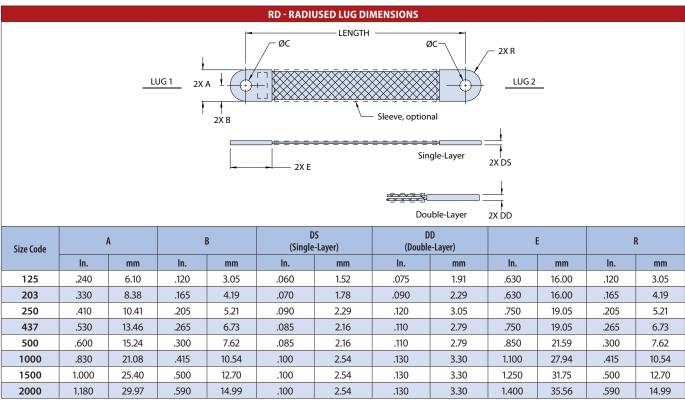
### LOW-RESISTANCE, FLEXIBLE

### A-A-59569 Ground and Bond Straps



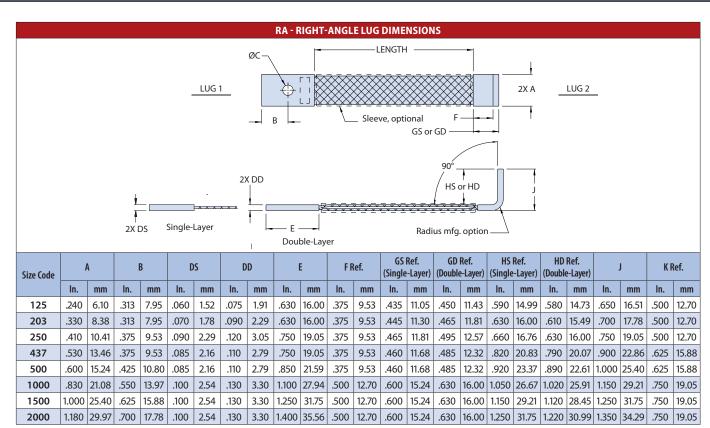
## 107-101 Tin-Plated Copper Braid Square Lugs / Radiused Lugs

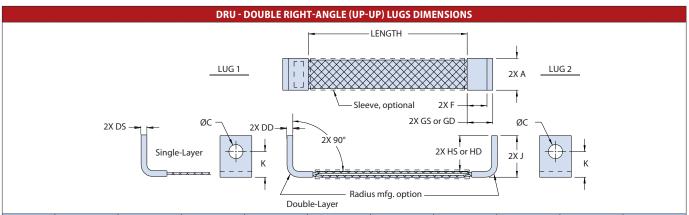






## 107-101 Tin-Plated Copper Braid Single / Double Right-Angle Lugs





Size Code		A	D	S	D	D	FR	Ref. GS Ref. GD Ref. HS Ref. HD Ref. J  (Single-Layer) (Double-Layer) (Single-Layer) (Double-Layer)				The state of the s		KR	( R ef.					
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
125	.240	6.10	.060	1.52	.075	1.91	.375	9.53	.435	11.05	.450	11.43	.590	14.99	.580	14.73	.650	16.51	.500	12.70
203	.330	8.38	.070	1.78	.090	2.29	.375	9.53	.445	11.30	.465	11.81	.630	16.00	.610	15.49	.700	17.78	.500	12.70
250	.410	10.41	.090	2.29	.120	3.05	.375	9.53	.465	11.81	.495	12.57	.660	16.76	.630	16.00	.750	19.05	.500	12.70
437	.530	13.46	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.820	20.83	.790	20.07	.900	22.86	.625	15.88
500	.600	15.24	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.920	23.37	.890	22.61	1.000	25.40	.625	15.88
1000	.830	21.08	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.050	26.67	1.020	25.91	1.150	29.21	.750	19.05
1500	1.000	25.40	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.150	29.21	1.120	28.45	1.250	31.75	.750	19.05
2000	1.180	29.97	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.250	31.75	1.220	30.99	1.350	34.29	.750	19.05



## 107-102 Silver-Plated Copper Braid Configurable Crimp Lugs, Optional Insulation



	HOW TO ORDER										
Sample Part Number	107-102	S	-RD	-2000	A	E	-6	S			
Product Series	Silver-plated copper ground strap										
Braid Layers	<b>S</b> = Single <b>D</b> = Double										
Lug Configuration	-SQ = Square Lugs -RD = Radiused -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up	,	,								
Size Code	125 – 2000, See Dimensions Tables	3 3 3 1 1									
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,						
Lug 2 Hole	A – M, See Table										
Length	In inches										
Insulation Sleeving  S = Black sleeving over braid  Omit = No sleeving  C = Clear sleeving over braid											

	HOLE SIZE CO	Stud Size			
Hole Size Code	ØC	(Ref.)			
Х	.000	No Lug Hole			
Z	.090/.098 (2.29/2.49)	#2			
Α	.114/.122 (2.90/3.10)	#4			
В	.142/.152 (3.61/3.86)	#6			
С	.168/.178 (4.27/4.52)	#8			
D	.193/.203 (4.90/5.16)	#10			
E	.260/.275 (6.60/6.99)	1/4			
F	.323/.338 (8.20/8.59)	5/16			
G	.385/.400 (9.78/10.16)	3/8			
Н	.448/.463 (11.38/11.76)	7/16			
J	.510/.525 (12.95/13.34)	1/2			
K	.573/.588 (14.55/14.94)	9/16			
L	.651/.666 (16.54/16.92	5/8			
М	.770/.785 (19.56/19.94)	3/4			

**LUG HOLE SIZE CODES** 

		SINGLE	-LAYER BRA	AID GROUND	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	3.0	1.5	16–15	35	7.90	В
203	7.8	4.0	12–11	63	3.10	D
250	9.6	4.9	11–10	72	2.65	Е
437	10.8	5.5	10	78	2.20	F
500	13.2	6.7	9	88	2.00	G
1000	19.2	9.7	8–7	111	1.45	J
1500	23.4	11.9	7–6	126	1.30	L
2000	28.8	14.6	6–5	143	1.05	М

		DOUBL	E-LAYER BR	AID GROUNI	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	6.0	3.0	13-12	54	3.95	В
203	15.6	8.0	9–8	98	1.55	D
250	19.2	9.8	8–7	111	1.35	Е
437	21.6	11.0	7	120	1.10	F
500	26.4	13.4	6	136	1.00	G
1000	38.4	19.4	5–4	171	0.75	J
1500	46.8	23.8	4–3	193	0.65	L
2000	57.6	29.2	3–2	220	0.55	М

### **GROUND STRAP FEATURES**

- Soft-drawn silver-plated copper braid
- High-temperature tolerant to 200°C
- EMI frequency effective from 10KHz to 1 GHz
- 125 lbs. pull strength (.500 dia. braid)
- 48 hours salt spray corrosion resistant
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

#### **MATERIAL/FINISH**

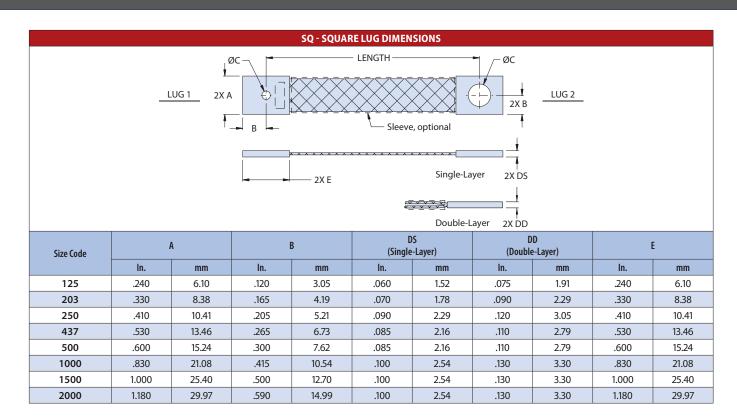
- Braid 36 AWG copper / silver plate IAW A-A-59569
- Lugs copper / silver plate per ASTM B700
- Sleeving per M23053 or equivalent

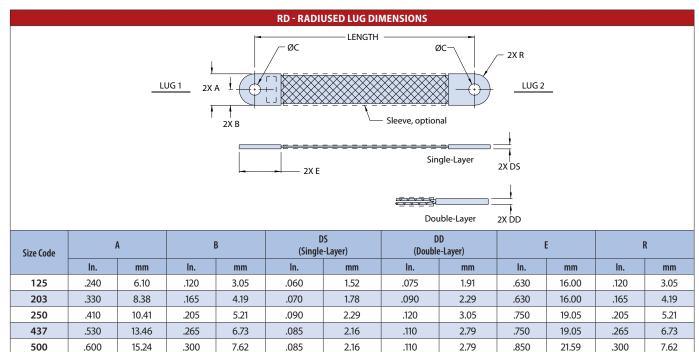
#### **NOTES**

- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



## 107-102 Silver-Plated Copper Braid Square Lugs / Radiused Lugs





2.54

2.54

2.54

.130

.130

3.30

3.30

3.30

27.94

31.75

35.56

1.100

1.250

1.400

.415

.590

10.54

12.70

14.99

1000

1500

2000

.830

1.000

1.180

21.08

25.40

29.97

.415

10.54

12.70

14.99

.100

.100

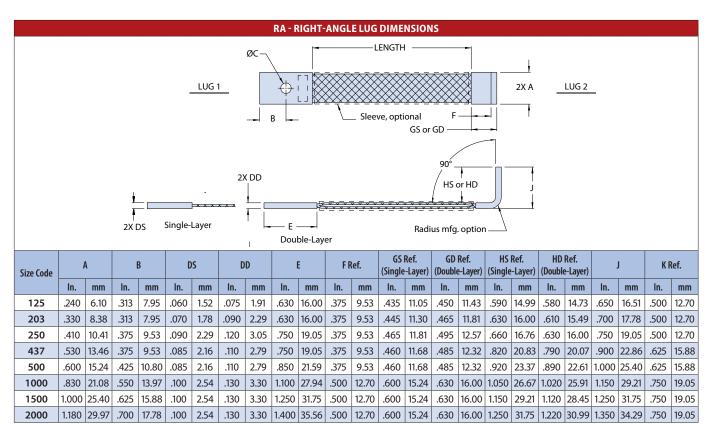
.100

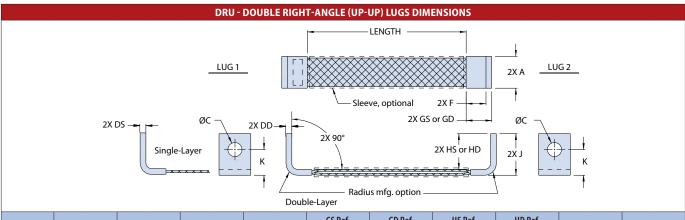
### LOW-RESISTANCE, FLEXIBLE

### A-A-59569 Ground and Bond Straps



## 107-102 Silver-Plated Copper Braid Single / Double Right-Angle Lugs





Size Code		A DS DD F Ref.		lef.	(Single-Layer) (Double-La							(Double-Layer)		J	K R ef.					
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
125	.240	6.10	.060	1.52	.075	1.91	.375	9.53	.435	11.05	.450	11.43	.590	14.99	.580	14.73	.650	16.51	.500	12.70
203	.330	8.38	.070	1.78	.090	2.29	.375	9.53	.445	11.30	.465	11.81	.630	16.00	.610	15.49	.700	17.78	.500	12.70
250	.410	10.41	.090	2.29	.120	3.05	.375	9.53	.465	11.81	.495	12.57	.660	16.76	.630	16.00	.750	19.05	.500	12.70
437	.530	13.46	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.820	20.83	.790	20.07	.900	22.86	.625	15.88
500	.600	15.24	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.920	23.37	.890	22.61	1.000	25.40	.625	15.88
1000	.830	21.08	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.050	26.67	1.020	25.91	1.150	29.21	.750	19.05
1500	1.000	25.40	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.150	29.21	1.120	28.45	1.250	31.75	.750	19.05
2000	1.180	29.97	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.250	31.75	1.220	30.99	1.350	34.29	.750	19.05



## 107-103 Nickel-Plated Copper Braid Configurable Crimp Lugs, Optional Insulation



	HOW TO ORDER										
Sample Part Number	107-103	-6	S								
Product Series	Nickel-plated copper ground strap	ckel-plated copper ground strap									
Braid Layers	<b>S</b> = Single <b>D</b> = Double										
Lug Configuration	-SQ = Square Lugs -RD = Radiused Lugs -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up-Up										
Size Code	125 – 2000, See Dimensions Tables	25 – 2000, See Dimensions Tables									
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,						
Lug 2 Hole	A – M, See Table										
Length	In inches										
Insulation Sleeving	S = Black sleeving over braid C = Clear sleeving over braid Omit = No sleeving										

Size

Code

125

203

250

437

500

1000

1500

CSA

(KCMIL)

3.0

7.8

9.6

10.8

13.2

19.2

23.4

(mm<sup>2</sup>)

1.5

4.0

49

5.5

6.7

11.9

G	<b>ROUND STRAP FEATURES</b>
•	Highly-conductive soft-drawn
	nickel-plated copper braid

- EMI frequency effective from 10KHz to 1 GHz
- 200°C temperature tolerant
- 125 lbs. pull strength (.500 dia. braid)
- 500 hours salt spray corrosion resistant
- Good abrasion resistance
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

LUG	<b>HOLE SIZE CO</b>	DES
Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4

2000	28.8	14.6	6–5	143	1.65	М
		DOUBL	E-LAYER BR	AID GROUNI	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	6.0	3.0	13–12	54	6.35	В
203	15.6	8.0	9–8	98	2.50	D
250	19.2	9.8	8–7	111	2.15	Е
437	21.6	11.0	7	120	1.80	F
500	26.4	13.4	6	136	1.60	G
1000	38.4	19.4	5–4	171	1.20	J
1500	46.8	23.8	4–3	193	1.05	L
2000	57.6	29.2	3–2	220	0.85	М

**SINGLE-LAYER BRAID GROUND STRAP** 

(Amps)\*\*

35

63

72

78

88

111

126

Current Rating Nom. Resistance Max. Lug

m0hm/m

12.65

5.00

4.25

3.60

3.15

2.35

2.05

Code

В

D

Ε

F

G

L

Ref. AWG

Equivalent\*

16-15

12-11

11-10

8-7

7-6

#### MATERIAL/FINISH

- Braid 36 AWG copper / nickel plate IAW A-A-59569
- Lugs copper / nickel plate per AMS-C-26074
- Sleeving per M23053 or equivalent

#### **NOTES**

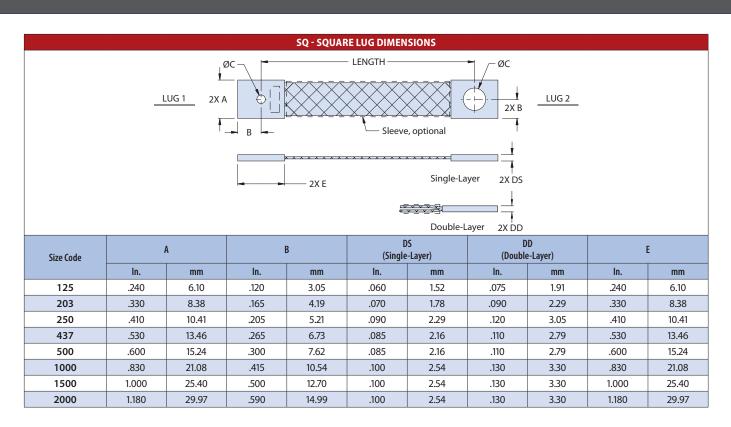
- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

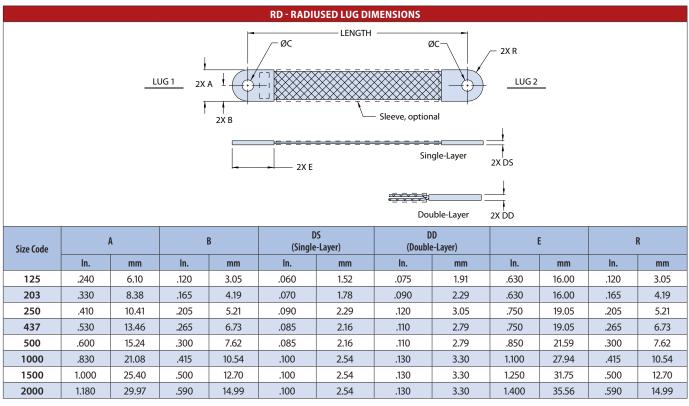
### LOW-RESISTANCE, FLEXIBLE

### A-A-59569 Ground and Bond Straps



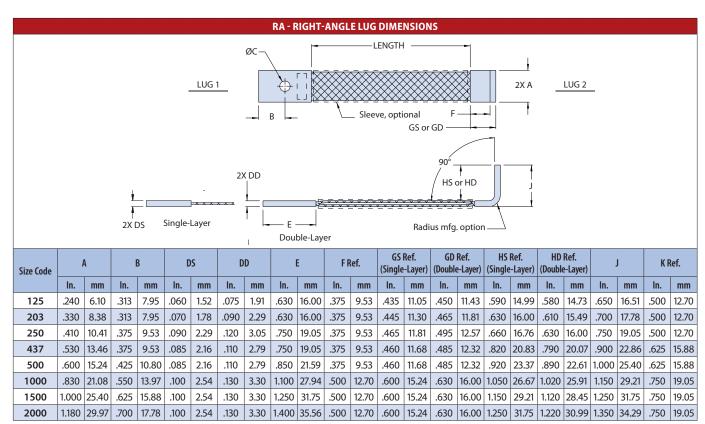
## 107-103 Nickel-Plated Copper Braid Square Lugs / Radiused Lugs

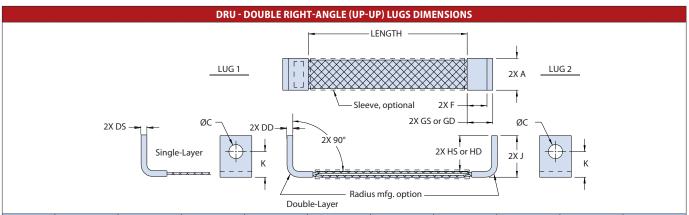






## 107-103 Nickel-Plated Copper Braid Single / Double Right-Angle Lugs





Size Code	1	A	D	S	D	D	FR	lef.	GS ( Single)		GD (Double	Ref. e-Layer)	HS ( (Single			Ref. e-Layer)	J		K R ef.	
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
125	.240	6.10	.060	1.52	.075	1.91	.375	9.53	.435	11.05	.450	11.43	.590	14.99	.580	14.73	.650	16.51	.500	12.70
203	.330	8.38	.070	1.78	.090	2.29	.375	9.53	.445	11.30	.465	11.81	.630	16.00	.610	15.49	.700	17.78	.500	12.70
250	.410	10.41	.090	2.29	.120	3.05	.375	9.53	.465	11.81	.495	12.57	.660	16.76	.630	16.00	.750	19.05	.500	12.70
437	.530	13.46	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.820	20.83	.790	20.07	.900	22.86	.625	15.88
500	.600	15.24	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.920	23.37	.890	22.61	1.000	25.40	.625	15.88
1000	.830	21.08	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.050	26.67	1.020	25.91	1.150	29.21	.750	19.05
1500	1.000	25.40	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.150	29.21	1.120	28.45	1.250	31.75	.750	19.05
2000	1.180	29.97	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.250	31.75	1.220	30.99	1.350	34.29	.750	19.05



## 107-104 Stainless Steel Braid Configurable Crimp Lugs, Optional Insulation



	HOW TO ORDER											
Sample Part Number	107-104	-6	S									
Product Series	Stainless steel ground strap	ainless steel ground strap										
Braid Layers	<b>S</b> = Single <b>D</b> = Double	= Single <b>D</b> = Double										
Lug Configuration	-RA = Right-Angle Lugs	GQ = Square Lugs -RD = Radiused Lugs GA = Right-Angle Lugs DRU = Double Right-Angle Lugs, Up-Up										
Size Code	125 – 2000, See Dimensions Tables	25 – 2000, See Dimensions Tables										
Lug 1 Hole	A – M, See Table. If two different sized specify smaller lug hole in this location		holes a	are requir	ed,							
Lug 2 Hole	A – M, See Table											
Length	In inches											
Insulation Sleeving	<b>S</b> = Black sleeving over braid <b>C</b> = Cl <b>Omit</b> = No sleeving	<b>S</b> = Black sleeving over braid <b>C</b> = Clear sleeving over braid <b>Omit</b> = No sleeving										

Code	νC	(Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
M	.770/.785	3/4

(19.56/19.94)

Stud Size

		SINGLE	-LAYER BRA	AID GROUND	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	3.0	1.5	16–15	6	573.00	В
203	7.8	4.0	12–11	12	225.00	D
250	9.6	4.9	11–10	14	187.00	Е
437	10.8	5.5	10	15	163.00	F
500	13.2	6.7	9	17	138.00	G
1000	19.2	9.7	8–7	21	104.00	J
1500	23.4	11.9	7–6	24	90.00	L
2000	28.8	14.6	6–5	28	74.00	М

		DOUBL	E-LAYER BR	AID GROUNI	STRAP	
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent*	Current Rating (Amps)**	Nom. Resistance m0hm/m	Max. Lug Code
125	6.0	3.0	13–12	10	286.50	В
203	15.6	8.0	9–8	19	112.50	D
250	19.2	9.8	8–7	21	93.50	Е
437	21.6	11.0	7	23	81.50	F
500	26.4	13.4	6	26	69.00	G
1000	38.4	19.4	5–4	33	52.00	J
1500	46.8	23.8	4–3	37	45.00	L
2000	57.6	29.2	3–2	43	37.00	М

#### **GROUND STRAP FEATURES**

- Soft-drawn stainless steel braid
- High-temperature tolerant to 260°C
- 1000 hours salt spray corrosion resistant
- EMI frequency effective from 10KHz to 1 GHz
- 225 lbs. pull strength (.500 dia. braid)
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

#### **MATERIAL/FINISH**

- Braid 36 AWG stainless steel per ASTM A580
- Lugs stainless steel / passivate per AMS2700
- Sleeving per M23053 or equivalent

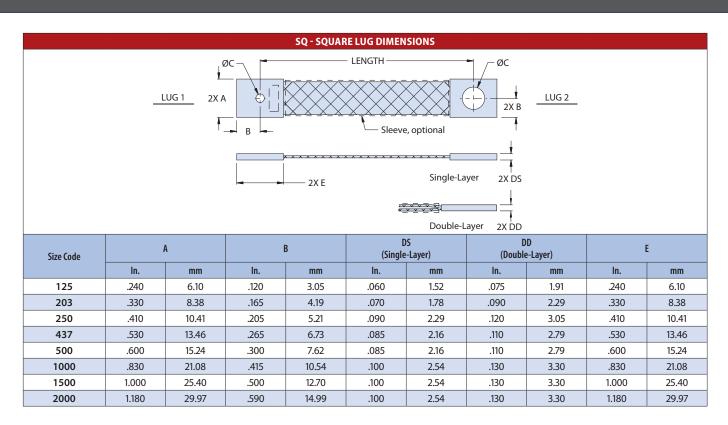
#### **NOTES**

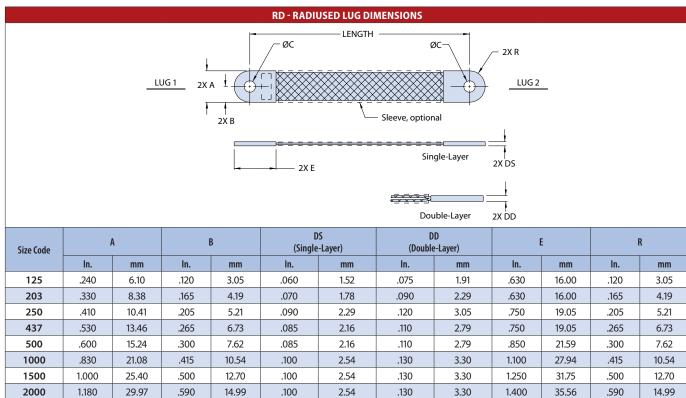
Hole Size

- \* AWG Eqiv. based on total cross sectional area of braid conductors, not electrical performance.
- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



## 107-104 Stainless Steel Braid Square Lugs / Radiused Lugs



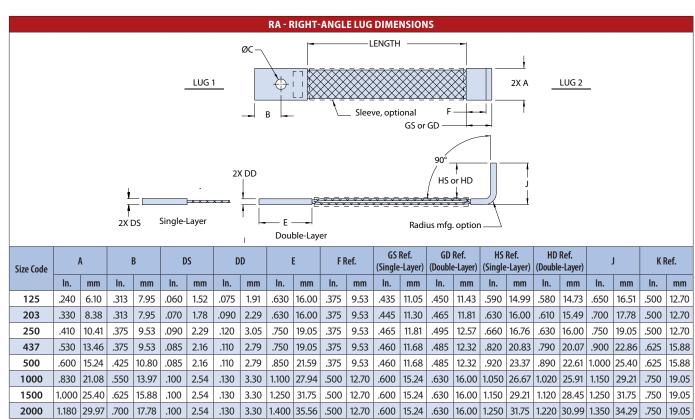


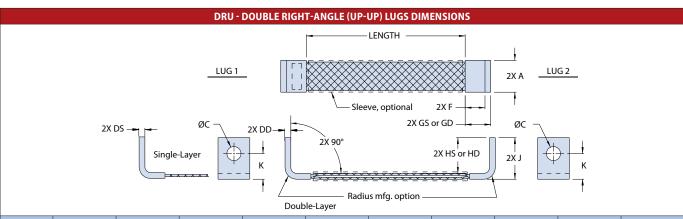
### LOW-RESISTANCE, FLEXIBLE

### A-A-59569 Ground and Bond Straps



## 107-104 Stainless Steel Braid Single / Double Right-Angle Lugs





Size Code	ı	A	D	S	D	D	FR	lef.	(Single	кет. -Layer)	(Double	кет. e-Layer)	(Single		(Double	кет. e-Layer)		l	KR	ef.
	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
125	.240	6.10	.060	1.52	.075	1.91	.375	9.53	.435	11.05	.450	11.43	.590	14.99	.580	14.73	.650	16.51	.500	12.70
203	.330	8.38	.070	1.78	.090	2.29	.375	9.53	.445	11.30	.465	11.81	.630	16.00	.610	15.49	.700	17.78	.500	12.70
250	.410	10.41	.090	2.29	.120	3.05	.375	9.53	.465	11.81	.495	12.57	.660	16.76	.630	16.00	.750	19.05	.500	12.70
437	.530	13.46	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.820	20.83	.790	20.07	.900	22.86	.625	15.88
500	.600	15.24	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.920	23.37	.890	22.61	1.000	25.40	.625	15.88
1000	.830	21.08	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.050	26.67	1.020	25.91	1.150	29.21	.750	19.05
1500	1.000	25.40	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.150	29.21	1.120	28.45	1.250	31.75	.750	19.05
2000	1.180	29.97	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.250	31.75	1.220	30.99	1.350	34.29	.750	19.05

### M24749 Type I Wire Rope Ground Straps



### **CRES 316 Wire Rope with Mounting Holes** Mil-qualified for shipboard electrical bonding applications



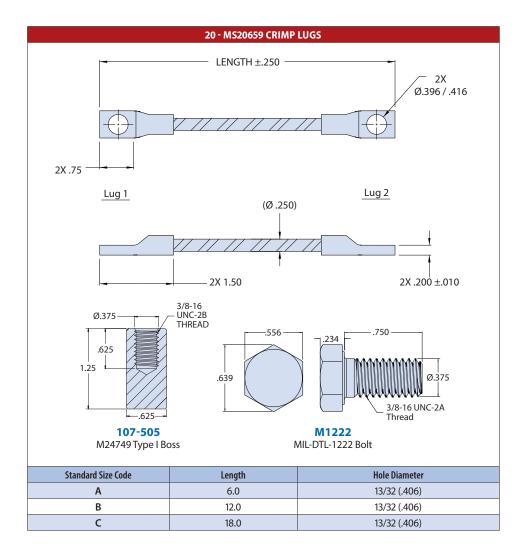
HOW TO ORDER											
Sample Part Number	M24749	-1	-N	-L	-CR						
Product Series	MIL-DTL-24749 Type I Bond Strap										
Bond Strap Type	I = CRES 316 wire rope										
Standard Size Code	See Table <b>N</b> = For Nonstandard S	izes									
Length	Only for Nonstandard										
Boss Type	CR = CRES 316L Omit = No Boss										

#### **GROUND STRAP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 type I bonding
- Intended for bonding items in weather-exposed areas where corrosion is a concern.
- For more options see Glenair Part Number 107-501.
- Boss type added to end of Type 1 strap will have boss and bolt supplied loose. Bolt supplied shall be M1222RN6C212SDNN unless otherwise specified.

#### **MATERIAL**

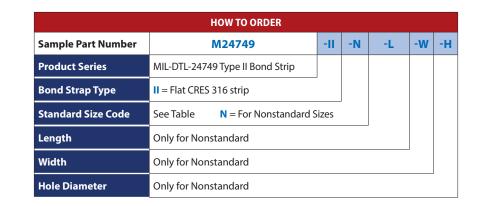
- Lugs 316L stainless steel per ASTM A312 / A312M
- Wire 316 stainless steel, annealed, .250 in. diameter



### M24749 Type II Bond Strips



## Flat CRES 316 Strip with Mounting Holes Mil-qualified for shipboard electrical bonding applications

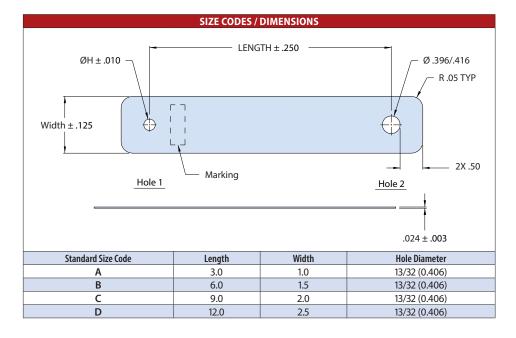


#### **GROUND STRIP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 type II bonding strips
- Intended for lower-impedance bonding items in weatherexposed areas where corrosion is a concern.
- The length-to-width ratio for type II bond straps shall not exceed 5 to 1.
- For more options see Glenair Part Number 107-502.

### MATERIAL/FINISH

 Strip - 316 stainless steel per ASTM A240 or A666/N.A.



### M24749 Type III Bond Strips



## Flat Copper Strip with Mounting Holes Mil-qualified for shipboard electrical bonding applications



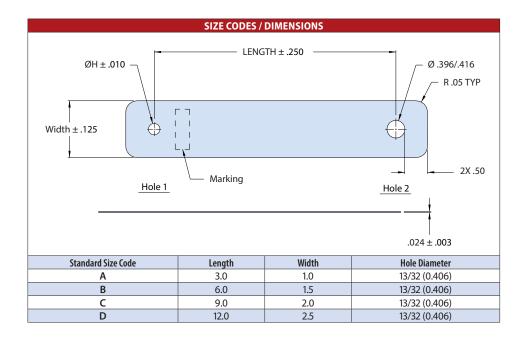
	HOW TO ORDER											
Sample Part Number												
Product Series	MIL-DTL-24749 Type III Bond Strip											
Bond Strap Type III = Flat Copper strip												
Standard Size Code	Standard Size Code See Table N = For Nonstandard Sizes											
Length	Only for Nonstandard											
Width	Only for Nonstandard	Only for Nonstandard										
Hole Diameter	Only for Nonstandard											

#### **GROUND STRIP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Type III bonding strips
- Intended use for bonding items in non-weather exposed areas.
- The length-to-width ratio for Type II bond strips shall not exceed 5 to 1.
- For more options see Glenair Part Number 107-503.

#### MATERIAL/FINISH

 Strip - Copper C11000 per ASTM B152/N.A.



### **M24749 Type IV Braided Ground Straps**



## Flat CRES 316L/Nickel 200 Braid with Mounting Holes Mil-qualified for shipboard electrical bonding applications



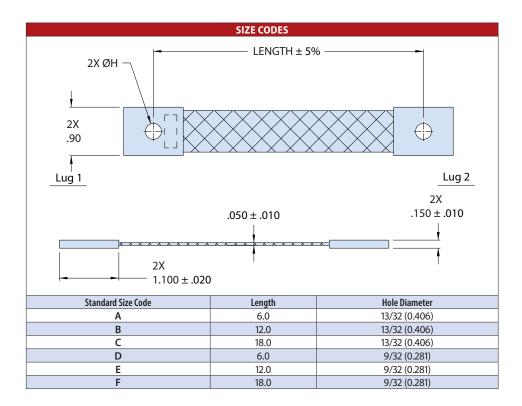
HOW TO ORDER								
Sample Part Number	Sample Part Number M24749			-L	-н			
Product Series	MIL-DTL-24749 Type IV Ground Strap							
Bond Strap Type	IV = Flat CRES 316L/Nickel 200 Braid							
Standard Size Code	See Table N = For Nonstandard Sizes							
Length	Only for Nonstandard			,				
Hole Diameter	Only for Nonstandard .281 or .406	5						

#### **GROUND STRAP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Type IV grounding straps.
- Intended use for bonding items in non-weather exposed areas where corrosion is a concern.
   Type IV is also for use below deck across sound dampening devices, in grounding or bonding of 1/4-inch studmounted equipment, or in grounding or bonding of portable electrical equipment.
- For more options see Glenair Part Number 107-500 or 107-504.

#### **MATERIAL/FINISH**

- Lugs: 316L stainless steel per ASTM A269/N.A.
- Braid: 36 AWG, 316L stainless steel (50%)-200 nickel (50%)/N.A.



### M24749-IV Type Configurable Ground Straps



## 107-500 Stainless Steel/Nickel Braid M24749 Type IV Style with configurable options



HOW TO ORDER								
Sample Part Number	107-500	S	-RD	-2000	A	Е	-6	S
Product Series	Stainless steel/nickel ground strap							
Braid Layers	S = Single D = Double							
Lug Configuration	-SQ = Square Lugs -RD = Radiused Lugs -RA = Right-Angle Lugs -DRU = Double Right-Angle Lugs, Up-Up							
Size Code	125 – 2000, See Dimensions Tables							
A – M, See Table. If two different sized lug holes are required, specify smaller lug hole in this location.								
Lug 2 Hole A – M, See Table								
Length	ength In inches							
Insulation Sleeving  S = Black sleeving over braid Omit = No sleeving  C = Clear sleeving over braid						,		

Hole Size Code	ØC	Stud Size (Ref.)
Х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19 56/19 94)	3/4

**LUG HOLE SIZE CODES** 

SINGLE-LAYER BRAID GROUND STRAP							
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent	Nom. Resistance m0hm/m	Max. Lug Code		
125	3.0	1.5	16–15	131.00	В		
203	7.8	4.0	12–11	52.00	D		
250	9.6	4.9	11–10	43.00	Е		
437	10.8	5.5	10	37.00	F		
500	13.2	6.7	9	31.00	G		
1000	19.2	9.7	8–7	23.00	J		
1500	23.4	11.9	7–6	20.50	L		
2000	28.8	14.6	6–5	14.00	М		

DOUBLE-LAYER BRAID GROUND STRAP							
Size Code	CSA (KCMIL)	CSA (mm²)	Ref. AWG Equivalent	Nom. Resistance m0hm/m	Max. Lug Code		
125	6.0	3.0	13–12	65.50	В		
203	15.6	8.0	9–8	26.00	D		
250	19.2	9.8	8–7	21.50	Е		
437	21.6	11.0	7	18.50	F		
500	26.4	13.4	6	15.50	G		
1000	38.4	19.4	5–4	11.50	J		
1500	46.8	23.8	4–3	10.50	L		
2000	57.6	29.2	3–2	7.00	М		

### **GROUND STRAP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Rev. C with width, length, and lug configuration options beyond standard mil-spec straps
- Tested to survive 1000 hours salt spray
- Unique Stainless Steel/Nickel hybrid braid
- Lightweight, durable, configurable crimp lugs: square, radiused, straight, singleand double-right-angle versions
- Available black or clear sleeving over braid

#### MATERIAL/FINISH

- Braid 36 AWG stainless steel 50% / nickel 200 50%
- Lugs stainless steel / passivate per AMS2700
- Sleeving per M23053 or equivalent

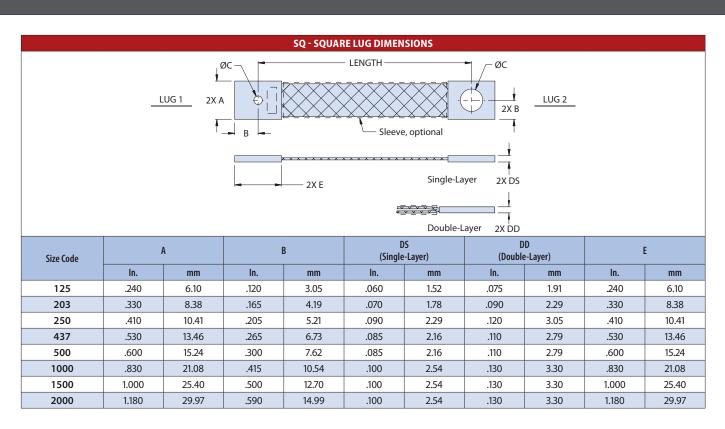
#### **NOTES**

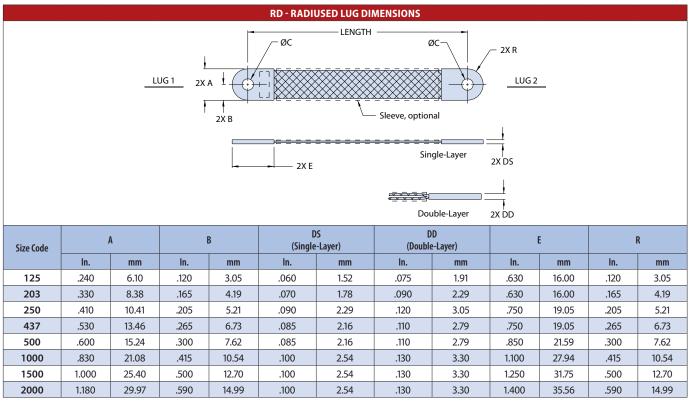
- Ground strap IAW MIL-DTL-24749 Type IV with all options, except strap allows for nonstandard strap form, widths, lengths, and hole sizes.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 5 inches, or  $\pm$  5% for lengths > than 5".
- Consult Glenair for Ground Straps with larger cross-sectional area and braid gauge

## **M24749-IV Type Configurable Ground Straps**



# 107-500 Stainless Steel Braid, M24749 Type IV Style Square Lugs / Radiused Lugs

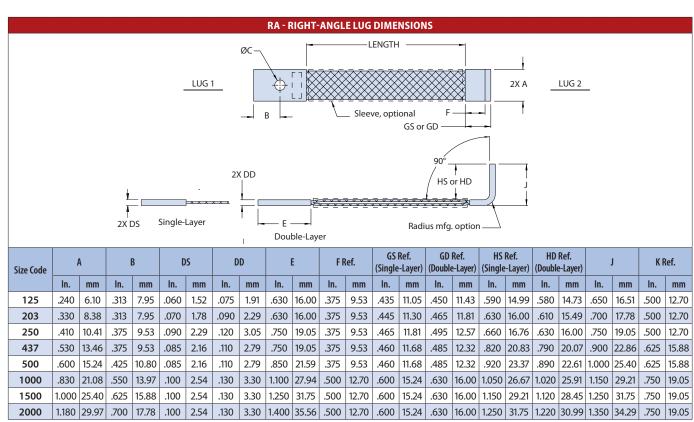


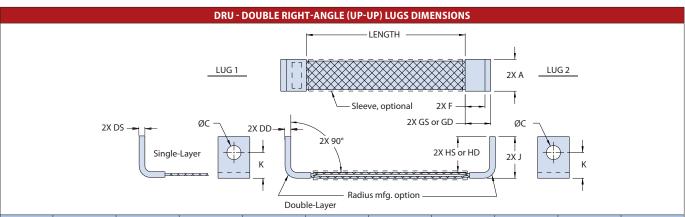


## M24749-IV Type Configurable Ground Straps



# 107-500 Stainless Steel Braid, M24749 Type IV style Single / Double Right-Angle Lugs





Size Code	1	A	D	S	D	D	FF	lef.	GS ( (Single	Ref. -Layer)	GD (Double	Ref. e-Layer)	HS (Single	Ref. -Layer)		Ref. e-Layer)		I	K R	t ef.	
		ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm	ln.	mm
12	25	.240	6.10	.060	1.52	.075	1.91	.375	9.53	.435	11.05	.450	11.43	.590	14.99	.580	14.73	.650	16.51	.500	12.70
20	)3	.330	8.38	.070	1.78	.090	2.29	.375	9.53	.445	11.30	.465	11.81	.630	16.00	.610	15.49	.700	17.78	.500	12.70
25	0	.410	10.41	.090	2.29	.120	3.05	.375	9.53	.465	11.81	.495	12.57	.660	16.76	.630	16.00	.750	19.05	.500	12.70
43	37	.530	13.46	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.820	20.83	.790	20.07	.900	22.86	.625	15.88
50	00	.600	15.24	.085	2.16	.110	2.79	.375	9.53	.460	11.68	.485	12.32	.920	23.37	.890	22.61	1.000	25.40	.625	15.88
100	00	.830	21.08	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.050	26.67	1.020	25.91	1.150	29.21	.750	19.05
150	00	1.000	25.40	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.150	29.21	1.120	28.45	1.250	31.75	.750	19.05
200	00	1.180	29.97	.100	2.54	.130	3.30	.500	12.70	.600	15.24	.630	16.00	1.250	31.75	1.220	30.99	1.350	34.29	.750	19.05

## **M24749-I Type Configurable Ground Straps**



# 107-501 Stainless Steel Wire Rope, M24749 Type I style with lug hole and length options



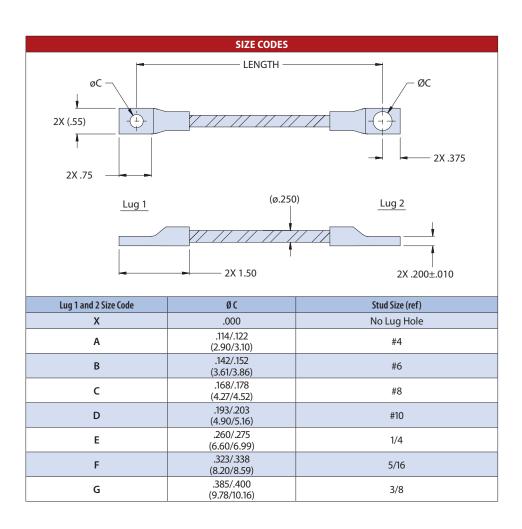
HOW TO ORDER							
Sample Part Number	107-501	-12	D	G	S		
Product Series	Nonstandard wire rope ground strap						
Length	In Inches						
Lug 1 Hole Code	See Table I						
Lug 2 Hole Code	See Table I			,			
Insulation Code	Insulation Code  S = M23053/5, Black Sleeving C = M23053/18, Clear Sleeving  Omit = no sleeving						

#### **GROUND STRAP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 type I with length and lug configuration options beyond standard milspec straps.
- Materials in accordance with MIL-DTL-24749 or equivalent, unless specified.
- Lug holes in accordance with AS7928.
- Bosses and bolts ordered separately, see 107-505
- Lug hole sizes may differ from each other depending on the part number development.
- Smaller lug hole diameter specified in "Lug 1" location in the part number.
- Length tolerance: ± .250 inches (6.35 mm) up to 5 inches, or ± 5% for lengths > than 5".

#### **MATERIAL/FINISH**

- Lugs: 316L stainless steel/ passivate per AMS2700.
- Rope: 316 stainless steel, .250 inch dia., annealed / passivate per AMS2700.



## **Ultra-Flexible TurboFlex® Ground Strap**



## 107-111 TurboFlex Rope-Lay Wire Rope Grounding Strap



HOW TO ORDER									
Sample Part Number	107-111	Т	-E	-SR	-A	Ε	-8	D2	
Product Series	TurboFlex Ground Strap								
TurboFlex Material	See Table								
Wire Size	Table IV-VII								
Ground Strap Style	SR = Strain Relief Lugs FRD = Flat Radiused Lugs 20 = MS20659 Lugs 25 = MS25036 Lugs TCT = TurboFlex Crimp Terminal Lugs								
Lug 1 Hole Code	See Table								
Lug 2 Hole Code	See Table								
Length	In Inches								
Jacket Material Code See Table Omit = no jacket									

#### **GROUND STRAP FEATURES**

- Lug hole table in accordance with AS7928.
- Bend radius is 3X the O.D.

#### **MATERIAL/FINISH**

- Lugs See table. Mil-Spec lugs
   Copper/tin plate per B545
- Conductor Copper/tin, silver, or nickel plated, See table
- Jacket/ Sleeve See table

LUG HOLE SIZE CODES									
ØC	Stud Size (Ref.)								
.000	No Lug Hole								
114/122	поје								
	#4								
,									
	#6								
.168/.178									
(4.27/4.52)	#8								
.193/.203	#10								
(4.90/5.16)	#10								
.260/.275	1/4								
(6.60/6.99)	1/4								
.323/.338	5/16								
(8.20/8.59)	3/10								
	3/8								
, ,	5, 0								
	7/16								
,									
	1/2								
,									
	9/16								
, ,									
	5/8								
,									
	3/4								
.895/.910									
(22.73/23.11	7/8								
	.000 .114/.122 (2.90/3.10) .142/.152 (3.61/3.86) .168/.178 (4.27/4.52) .193/.203 (4.90/5.16) .260/.275 (6.60/6.99) .323/.338 (8.20/8.59) .385/.400 (9.78/10.16) .448/.463 (11.38/11.76) .510/.525 (12.95/13.34) .573/.588 (14.55/14.94) .651/.666 (16.54/16.92 .770/.785 (19.56/19.94) .895/.910								

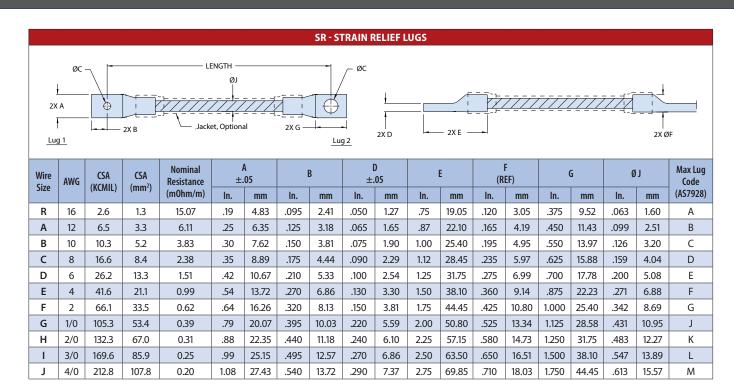
	JACKET AND SLEEVE MATERIAL CODE
SYM	Insulation Material/Description
D0	High Performance Elastomer, Duralectric Black
D1	High Performance Elastomer, Duralectric Brown
D2	High Performance Elastomer, Duralectric Red
D3	High Performance Elastomer, Duralectric Orange
D4	High Performance Elastomer, Duralectric Yellow
D5	High Performance Elastomer, Duralectric Green
D6	High Performance Elastomer, Duralectric Blue
D7	High Performance Elastomer, Duralectric Violet
D8	High Performance Elastomer, Duralectric Gray
D9	High Performance Elastomer, Duralectric White
DDT	High Performance Elastomer, Duralectric Desert Tan
DOG	High Performance Elastomer, Duralectric Dark Olive Green
F	Fire / Caustic Chemical-Resistant Elastomer, Duralectric F Blue

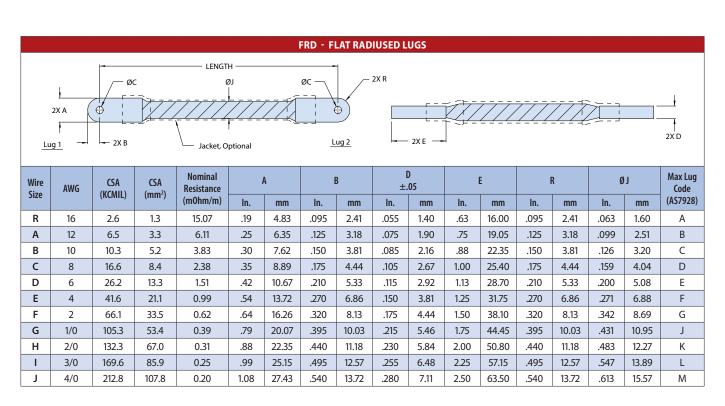
	TURBOFLEX WIRE AND LUG MATERIAL								
SYM	Wire Material/Plating								
Т	Copper / Tin Plated								
S	Copper / Silver Plated								
N	Copper / Nickel Plated								

## **Ultra-Flexible TurboFlex® Ground Strap**



### 107-111 TurboFlex Wire Rope Grounding Strap

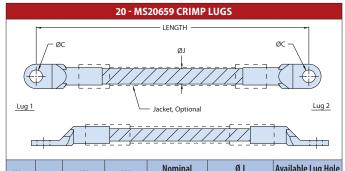




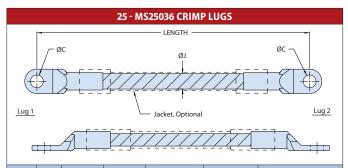
## **Ultra-Flexible TurboFlex® Ground Strap**



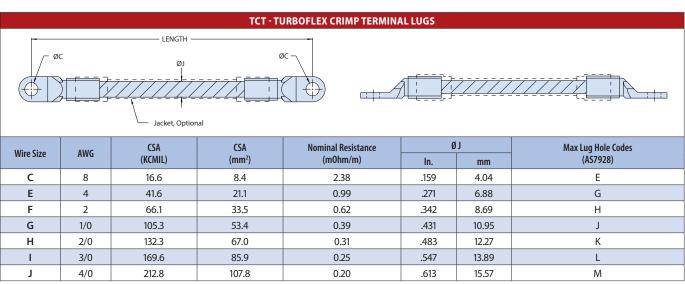
## 107-111 TurboFlex Wire Rope Grounding Strap



"												
Wire		CSA	CSA	Nominal	Ø	J	Available Lug Hole					
Size	AWG	(KCMIL)	(mm²)	Resistance (m0hm/m)	ln.	mm	Codes (AS7928)					
R	16	2.6	1.3	15.07	.063	1.60	B, D					
Α	12	6.5	3.3	6.11	.099	2.51	B, D, F, G					
В	10	10.3	5.2	3.83	.126	3.20	B, D, F, G					
C	8	16.6	8.4	2.38	.159	4.04	C, D, E, F, G					
D	6	26.2	13.3	1.51	.200	5.08	D, E, F, G					
E	4	41.6	21.1	0.99	.271	6.88	D, E, F, G					
F	2	66.1	33.5	0.62	.342	8.69	D, E, F, G, H, J					
G	1/0	105.3	53.4	0.39	.431	10.95	E, F, G, H, J					
Н	2/0	132.3	67.0	0.31	.483	12.27	E, F, G, H, J					
I	3/0	169.6	85.9	0.25	.547	13.89	F, G, H, J					
J	4/0	212.8	107.8	0.20	.613	15.57	F, G, H, J					



Wire		CSA	CSA	Nominal	Ø	J	Available Lug Hole
Size	AWG	(KCMIL)	(mm²)	Resistance (m0hm/m)	ln.	mm	Codes (AS7928)
R	16	2.6	1.3	15.07	.063	1.60	A, B, C, D, E, F, G, J
Α	12	6.5	3.3	6.11	.099	2.51	B, C, D, E, F, G, J
В	10	10.3	5.2	3.83	.126	3.20	B, C, D, E, F, G, J
С	8	16.6	8.4	2.38	.159	4.04	D, E, F, G
D	6	26.2	13.3	1.51	.200	5.08	D, E, F, G
Е	4	41.6	21.1	0.99	.271	6.88	E, F, G
F	2	66.1	33.5	0.62	.342	8.69	E, G, J
G	1/0	105.3	53.4	0.39	.431	10.95	E, G, J
Н	2/0	132.3	67.0	0.31	.483	12.27	F, G, J
- 1	3/0	169.6	85.9	0.25	.547	13.89	G, J
J	4/0	212.8	107.8	0.20	.613	15.57	G, J



## M24749 Type II Type Configurable Bond Strips

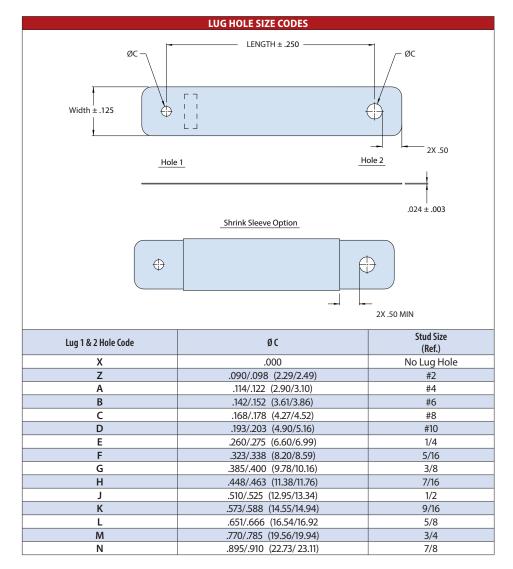


# 107-502 Commercial Equivalent Bonding Strip M24749 Type II Style with configurable options



#### **GROUND STRIP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Rev. C with material, width, length, and lug configuration options beyond standard mil-spec strips
- Materials in accordance with MIL-DTL-24749 or equivalent, unless otherwise specified.
- Lug holes in accordance with AS7928.
- The length-to-width ratio of bond strip shall not exceed 5 to 1.
- Hole sizes may differ from each other depending on part number development. Smaller hold diameter specified in "Hole 1" location in the part number.



## M24749 Type III Type Configurable Bond Strips



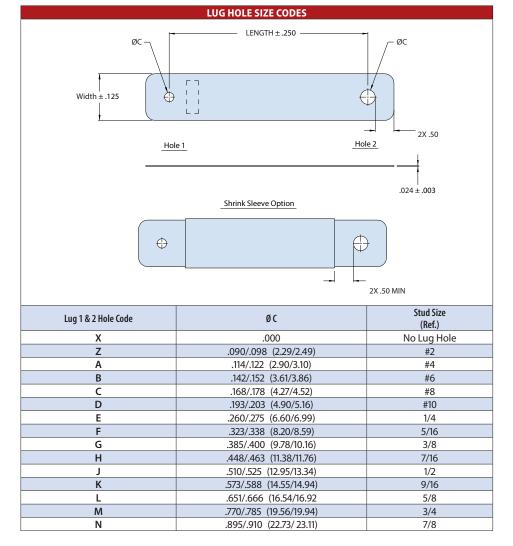
# 107-503 Commercial Equivalent Bonding Strip M24749 Type III Style with configurable options



	HOW TO ORDER						
Sample Part Number	107-503	Α	-2250	Α	Ε	-10	S
Product Series	Commercial Equivalent Bonding Strips						
Material Code	A = Copper/Tin Plated B = Copper/Silver Plated C = Copper/Nickel Plated D = Copper/Unplated						
Width Code	n thousandths of an inch EX: 2250 = 2.250						
Hole 1 Code	See Table						
Hole 2 Code	ole 2 Code See Table						
Length	In Inches						
Insulation Code  S = M23053/5, Black Sleeving C = M23053/18, Clear Sleeving  Omit = no sleeving							

#### **GROUND STRIP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Rev. C with material, width, length, and lug configuration options beyond standard mil-spec strips
- Materials in accordance with MIL-DTL-24749 or equivalent, unless otherwise specified.
- Lug holes in accordance with AS7928.
- The length-to-width ratio of bond strip shall not exceed 5 to 1.
- Hole sizes may differ from each other depending on part number development. Smaller hold diameter specified in "Hole 1" location in the part number.



## M24749 Type IV Type Configurable Ground Straps Glenair.



## 107-504 Commercial Equivalent Ground Strap M24749 Type IV Style with lug hole and length options



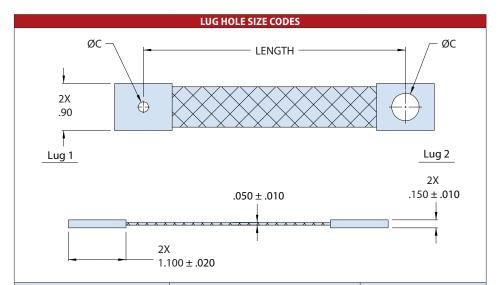
#### **GROUND STRAP FEATURES**

- Meets the rigorous specifications of MIL-DTL-24749 Rev. C with length and lug configuration options beyond standard milspec straps.
- Materials in accordance with MIL-DTL-24749 or equivalent, unless specified.
- Lug holes in accordance with AS7928.
- Lug hole sizes may differ from each other depending on the part number development.
- Smaller lug hole diameter specified in "Lug 1" location in the part number.

#### **MATERIAL/FINISH**

- Lugs: 316L stainless steel/ passivate per AMS2700.
- Braid: 36 AWG, 316L stainless steel (50%)-nickel 200 (50%)





Lug 1 & 2 Hole Code	ØC	Stud Size (Ref.)			
X	.000	No Lug Hole			
Z	.090/.098 (2.29/2.49)	#2			
Α	.114/.122 (2.90/3.10)	#4			
В	.142/.152 (3.61/3.86)	#6			
С	.168/.178 (4.27/4.52)	#8			
D	.193/.203 (4.90/5.16)	#10			
E	.260/.275 (6.60/6.99)	1/4			
F	.323/.338 (8.20/8.59)	5/16			
G	.385/.400 (9.78/10.16)	3/8			
Н	.448/.463 (11.38/11.76)	7/16			
J	.510/.525 (12.95/13.34)	1/2			
K	.573/.588 (14.55/14.94)	9/16			
L	.651/.666 (16.54/16.92	5/8			

SERIES 107
FLEXIBLE
BRAIDED STRAPS
GROUNDS, BONDS,
AND BUSBARS

#### LOW-RESISTANCE, HIGH CONDUCTIVITY

#### Flexible Power Distribution Busbars

Multi-layer braided construction for missioncritical power distribution applications



Insulated and uninsulated flexible busbars manufactured by Glenair using 30 AWG soft-drawn copper wire are used in a wide range of electrical applications including power distribution panels, switch gear, control panels, battery plants, and power feed line applications. Busbar designs are preferred for source-to-load applications such as in unmanned aerial vehicles, due to their inherent light weight and flexibility. In fact, uninsulated flexible busbars offer a more compact and lighter weight power management solution compared to conventional cables—with improved current-carrying capability—in applications where space and weight constraints are critical considerations.

Busbars can provide better heat dissipation compared to jacketed cable, as there is no insulating material to impede the transfer of heat away from the conductors.

In addition, uninsulated busbars allow for easier visual inspection and maintenance compared to jacketed cable, as there are no insulating covers or barriers obstructing access to the conductors. This can simplify troubleshooting and servicing tasks, particularly in vehicle applications.

- Single, double, triple, and quadruple layer configurations for current ratings up to 615 Amps, and special 5–10 layer braided busbars with current ratings up to 1055 Amps
- Flat braided form-factor
  with improved currentcarrying capability
  compared to round cables
  with the same crosssectional area
- 30 AWG soft-drawn copper-core with available plating options including tin, nickel, and silver
- Stainless steel material busbars for high heat dissipation applications
- Heavy-duty, highconductivity lugs with single, double, and quadruple bolt hole patterns

# LOW-RESISTANCE, HIGH CONDUCTIVITY Flexible Power Distribution Busbars

## For Mission-Critical Power Distribution Applications



Multilayer flat form factor translates to significant improvements in current-carrying capacity and resistance compared to conventional cables.

The selection of flexible busbars for power distribution applications is based on several factors to ensure optimal performance, reliability, and safety. Here are some key considerations that influence the selection process:

**Current Carrying Capacity**: One of the primary factors in selecting flexible busbars is their current carrying capacity, which should match or exceed the maximum expected current requirements of the electrical system to ensure safe and efficient power distribution without overheating or voltage drops.

**Voltage Rating**: Flexible busbars must be rated for the voltage levels present in the electrical system. The voltage rating should exceed the maximum to which the busbars will be subjected to prevent electrical breakdown.

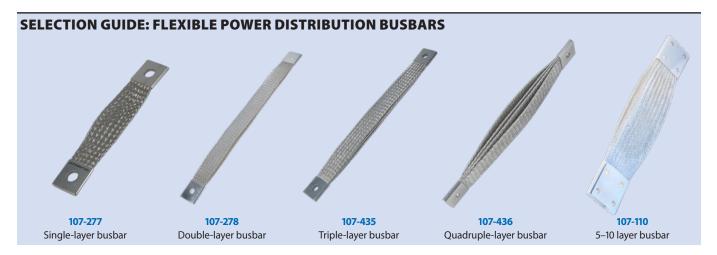
**Material**: Glenair flexible busbars are made from either copper or stainless steel (consult factory for aluminum busbars). The choice of material depends on factors such as conductivity, mechanical strength, weight, and corrosion resistance.

**Flexibility**: Flexibility is essential to accommodate bending, twisting, and routing within the confined spaces of electrical enclosures or vehicle fuselage. The busbars should be flexible enough to facilitate installation while maintaining their shape and mechanical stability.

**Insulation**: Depending on the application requirements, busbars may be insulated to protect against electrical shock hazards, prevent short circuits, and provide environmental protection.

**Environmental Conditions**: The operating environment of the electrical system influences the selection of available plating. Factors such as temperature extremes, moisture, humidity, vibration, and exposure to chemicals or corrosive substances should be considered.

**Standards Compliance**: Flexible busbars should comply with relevant industry standards, codes, and regulations governing electrical distribution systems. Customer compliance with standards ensures that the busbars meet minimum safety and performance requirements for their intended applications





### 107-277 Single-Layer Flexible Braided Busbar

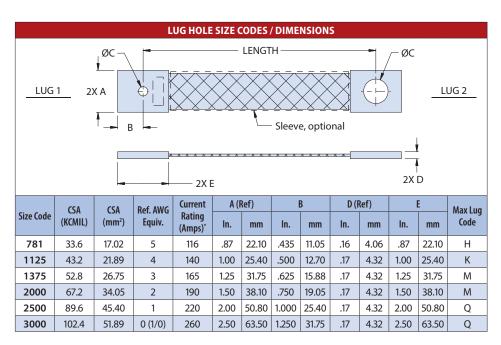


LUG HOLE SIZE CODES									
Hole Size Code	ØC ØC	Stud Size (Ref.)							
х	.000	No Lug Hole							
Z	.090/.098 (2.29/2.49)	#2							
Α	.114/.122 (2.90/3.10)	#4							
В	.142/.152 (3.61/3.86)	#6							
С	.168/.178 (4.27/4.52)	#8							
D	.193/.203 (4.90/5.16)	#10							
E	.260/.275 (6.60/6.99)	1/4							
F	.323/.338 (8.20/8.59)	5/16							
G	.385/.400 (9.78/10.16)	3/8							
н	.448/.463 (11.38/11.76)	7/16							
J	.510/.525 (12.95/13.34)	1/2							
K	.573/.588 (14.55/14.94)	9/16							
L	.651/.666 (16.54/16.92	5/8							
M	.770/.785 (19.56/19.94)	3/4							
N	.895/.910 (22.73/ 23.11)	7/8							
Р	.957/.972	15/16							
Q	1.020/1.035 (25.91/26.29)	1							

#### MATERIAL/FINISH

- Braid and Lugs 30 AWG copper/ tin, silver, or nickel plated; or 30 AWG stainless steel
- Sleeving per M23053 or equivalent

HOW TO ORDER										
Sample Part Number	107-277	A	781	В	F	-6	S			
Product Series	Busbar Ground Strap, Single Layer									
Material Code	A = Copper / Tin plated B = Copper / Silver plated C = Copper / Nickel plated D = Stainless Steel									
Size Code	<b>781</b> – <b>3000</b> , See Dimensions Tables									
Lug 1 Hole	A – Q, See Table. If two different sized lug holes are required, specify smaller lug hole in this location.									
Lug 2 Hole	A – Q, See Table									
Length	In inches									
Insulation Sleeving	S = Black sleeving over braid Omit = No sleeving									



- \* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 5 inches, or  $\pm$  5% for lengths > than 5".
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

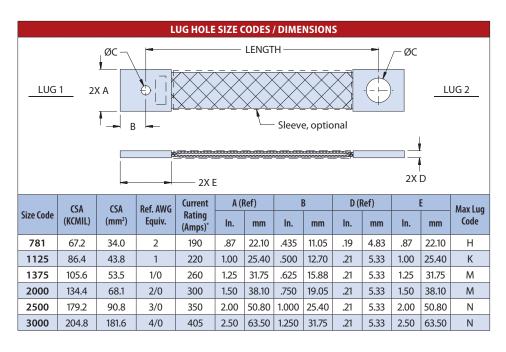


#### 107-278 Double-Layer Flexible Braided Busbar



LU	G HOLE SIZE COD	ES
Hole Size Code	ØC	Stud Size (Ref.)
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
K	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4
N	.895/.910 (22.73/ 23.11)	7/8

HOW TO ORDER											
Sample Part Number	107-278	В	F	-6	S						
Product Series	Busbar Ground Strap, Double Layer										
Material Code	A = Copper / Tin plated B = Copper / Silver plated C = Copper / Nickel plated D = Stainless Steel	,									
Size Code	<b>781</b> – <b>3000</b> , See Dimensions Tables	781 – 3000, See Dimensions Tables									
Lug 1 Hole	A – N, See Table. If two different sized lu specify smaller lug hole in this location.		es are requ	uired,							
Lug 2 Hole	A – N, See Table										
Length	In inches										
Insulation Sleeving  S = Black sleeving over braid  Omit = No sleeving											



#### **MATERIAL/FINISH**

- Braid and Lugs 30 AWG copper/ tin, silver, or nickel plated; or 30 AWG stainless steel
- Sleeving per M23053 or equivalent

- \* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 5 inches, or  $\pm$  5% for lengths > than 5".
- Ground Straps identified with Glenair name, P/N, and date code, space permitting



### 107-435 Triple-Layer Flexible Braided Busbar

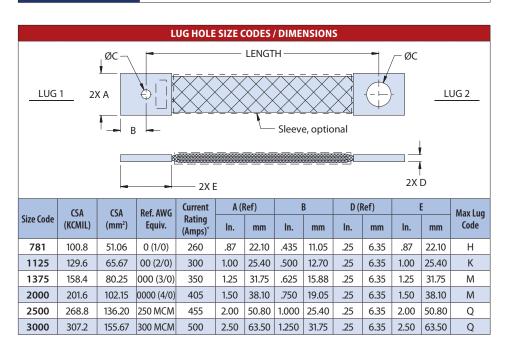


LUG HOLE SIZE CODES									
Hole Size Code	Ø C	Stud Size (Ref.)							
х	.000	No Lug Hole							
Z	.090/.098 (2.29/2.49)	#2							
Α	.114/.122 (2.90/3.10)	#4							
В	.142/.152 (3.61/3.86)	#6							
С	.168/.178 (4.27/4.52)	#8							
D	.193/.203 (4.90/5.16)	#10							
E	.260/.275 (6.60/6.99)	1/4							
F	.323/.338 (8.20/8.59)	5/16							
G	.385/.400 (9.78/10.16)	3/8							
Н	.448/.463 (11.38/11.76)	7/16							
J	.510/.525 (12.95/13.34)	1/2							
К	.573/.588 (14.55/14.94)	9/16							
L	.651/.666 (16.54/16.92	5/8							
М	.770/.785 (19.56/19.94)	3/4							
N	.895/.910 (22.73/ 23.11)	7/8							
Р	.957/.972	15/16							
Q	1.020/1.035 (25.91/26.29)	1							

#### MATERIAL/FINISH

- Braid and Lugs 30 AWG copper/ tin, silver, or nickel plated; or 30 AWG stainless steel
- Sleeving per M23053 or equivalent

HOW TO ORDER											
Sample Part Number	107-435	В	F	-6	S						
Product Series	Busbar Ground Strap, Triple Layer										
Material Code	A = Copper / Tin plated B = Copper / Silver plated C = Copper / Nickel plated D = Stainless Steel	,									
Size Code	<b>781</b> – <b>3000</b> , See Dimensions Tables	781 – 3000, See Dimensions Tables									
Lug 1 Hole	A – Q, See Table. If two different sized lu specify smaller lug hole in this location	_	es are requ	uired,							
Lug 2 Hole	A – Q, See Table										
Length	In inches										
Insulation Sleeving	<b>S</b> = Black sleeving over braid <b>Omit</b> =	No sle	eving								



- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 5 inches, or  $\pm$  5% for lengths > than 5".
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

#### HIGH-CURRENT 30 AWG CONSTRUCTION

## Flexible Braided Busbar



## 107-436 Quadruple-Layer Flexible Braided Busbar

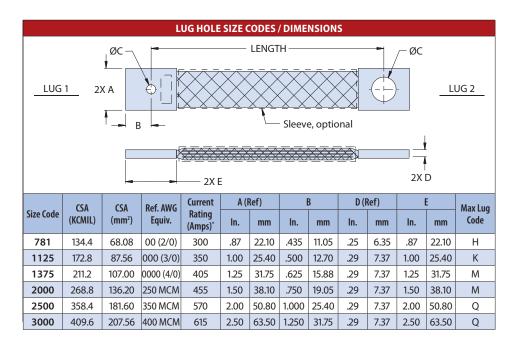


LU	G HOLE SIZE COD	ES
Hole Size Code	ØC	Stud Size (Ref.)
х	.000	No Lug Hole
Z	.090/.098 (2.29/2.49)	#2
Α	.114/.122 (2.90/3.10)	#4
В	.142/.152 (3.61/3.86)	#6
С	.168/.178 (4.27/4.52)	#8
D	.193/.203 (4.90/5.16)	#10
E	.260/.275 (6.60/6.99)	1/4
F	.323/.338 (8.20/8.59)	5/16
G	.385/.400 (9.78/10.16)	3/8
Н	.448/.463 (11.38/11.76)	7/16
J	.510/.525 (12.95/13.34)	1/2
К	.573/.588 (14.55/14.94)	9/16
L	.651/.666 (16.54/16.92	5/8
М	.770/.785 (19.56/19.94)	3/4
N	.895/.910 (22.73/ 23.11)	7/8
Р	.957/.972 (24.31/24.69	15/16
Q	1.020/1.035 (25.91/26.29)	1

#### MATERIAL/FINISH

- Braid and Lugs 30 AWG copper/ tin, silver, or nickel plated; or 30 AWG stainless steel
- Sleeving per M23053 or equivalent

HOW TO ORDER											
Sample Part Number	107-436	В	F	-6	S						
Product Series	Busbar Ground Strap, Quadruple Layer										
Material Code	A = Copper / Tin plated B = Copper / Silver plated C = Copper / Nickel plated D = Stainless Steel	,									
Size Code	<b>781</b> – <b>3000</b> , See Dimensions Tables	781 – 3000, See Dimensions Tables									
Lug 1 Hole	A – Q, See Table. If two different sized luspecify smaller lug hole in this location.	_	es are requ	uired,							
Lug 2 Hole	A – Q, See Table										
Length	In inches					-					
Insulation Sleeving	nsulation Sleeving S = Black sleeving over braid Omit = No sleeving										



- \*\* Current rating given for information only and is not a requirement. Values shown are for uninsulated wire in free air, based on ambient of 30°C and max temperature of 90°C. Values should be derated in insulated or if in close contact with other components.
- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 5 inches, or  $\pm$  5% for lengths > than 5".
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

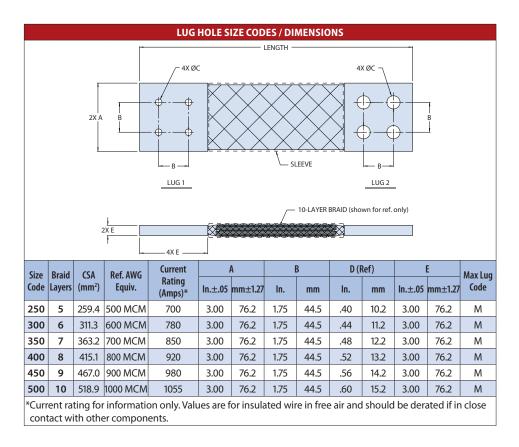


### 107-110 Flexible Braided Busbar, 5-10 layers, 4-bolt mount



HOW TO ORDER											
Sample Part Number	107-110	G	М	-9	S						
Product Series	Busbar Ground Strap, 5–10 layer, 4-bolt										
Material Code	T = Copper / Tin plated S = Copper / Silver plated N = Copper / Nickel plated										
Size Code	<b>250</b> – <b>500</b> , See Dimensions Tables	250 – 500, See Dimensions Tables									
Lug 1 Hole	X – M, See Table. If two different sized luquired, specify smaller lug hole in this lu			,							
Lug 2 Hole	X – M, See Table										
Length	In inches										
Insulation Sleeving	<b>S</b> = Black sleeving over braid <b>Omit</b> =	No slee	eving				•				

LUG HOLE SIZE CODES									
Hole Size Code	ØC	Stud Size (Ref.)							
х	.000	No Lug Hole							
z	.090/.098 (2.29/2.49)	#2							
Α	.114/.122 (2.90/3.10)	#4							
В	.142/.152 (3.61/3.86)	#6							
С	.168/.178 (4.27/4.52)	#8							
D	.193/.203 (4.90/5.16)	#10							
E	.260/.275 (6.60/6.99)	1/4							
F	.323/.338 (8.20/8.59)	5/16							
G	.385/.400 (9.78/10.16)	3/8							
Н	.448/.463 (11.38/11.76)	7/16							
J	.510/.525 (12.95/13.34)	1/2							
K	.573/.588 (14.55/14.94)	9/16							
L	.651/.666 (16.54/16.92	5/8							
М	.770/.785 (19.56/19.94)	3/4							



#### **MATERIAL/FINISH**

- Braid and Lugs 30 AWG copper/ tin, silver, or nickel plated; or 30 AWG stainless steel
- Sleeving per M23053 or equivalent

- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number.
- Length tolerance:  $\pm$  .250 inches (6.35 mm) up to 12 inches, or  $\pm$  2% for lengths > than 12".
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

## A-A-59569 Ground Straps



# **107-086 Nickel-Plated Copper Braided Strap for Submarine Applications**



HOW TO ORDER										
Sample Part Number	107-086	-7	Α	C						
Product Series	Nickel-plated copper ground strap for Submarine applications									
Length Code	<b>3</b> – <b>36</b> , See Dimensions Table									
Lug 1 Hole	A – G, See Table. If two different sized lug holes are required, specify smaller lug hole in this location.									
Lug 2 Hole	A – G, See Table									

#### **GROUND STRAP FEATURES**

- Materials and design in accordance with Commercial Item Description A-A-59569 for grounding bonds
- Low-profile nickel-plated copper lugs with configurable mounting hole size options
- Nickel-plated copper braid material conforms to ASTM B355

LU	G HOLE SIZE COD	ES
Hole Size Code	ØC	Stud Size (Ref.)
Α	.120/.128 (.305/.325)	#4
В	.147/.152 (.373/.386)	#6
С	.172/.180 (.437/.457)	#8
D	.199/.204 (5.05/5.18)	#10
E	.257/.266 (6.53/6.76)	1/4
F	.323/.328 (8.20/8.33)	5/16
G	.386/.391 (9.80/9.93)	3/8

# LUG HOLE SIZE CODES / DIMENSIONS DENGTH LUG 2 LUG 1 LUG 2 A + 050 B + 070 D + 030 L + 125

Length Code	A±.	.050	B±.020 D±.030 L±.125		Max Lug Code				
Length Code	In. mm		In.	In. mm		In. mm		mm	Max Lug Code
3	.640	16.26	.218	5.54	.150	3.81	3.000	76.20	D
4	.960	24.38	.312	7.92	.090	2.29	4.000	101.60	G
5	1.000	25.40	.312	7.92	.170	4.32	5.000	127.00	G
6	1.000	25.40	.312	7.92	.170	4.32	6.000	152.40	G
7	1.000	25.40	.312	7.92	.170	4.32	7.000	177.80	G
8	1.000	25.40	.500	12.70	.180	4.57	8.000	203.20	G
12	1.000	25.40	.500	12.70	.180	4.57	12.000	304.80	G
16	1.000	25.40	.500	12.70	.180	4.57	16.000	406.40	G
24	1.000	25.40	.500	12.70	.180	4.57	24.000	609.60	G
36	1.000	25.40	.500	12.70	.180	4.57	36.000	914.40	G

#### **MATERIAL/FINISH**

- Braid copper / nickel plate IAW A-A-59569F
- Lugs copper / nickel plate per AMS-QQ-N-290

- Lug hole sizes may differ from each other. Smaller lug hole diameter specified in "Lug 1" location in the part number. (Not applicable for RA right-angle lug configurations). Lug holes IAW AS7928
- Ground Straps identified with Glenair name, P/N, and date code, space permitting

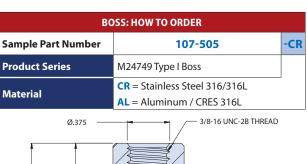
## **Braided Ground Strap Hardware**

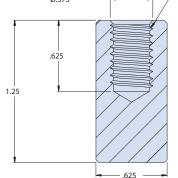


## 107-505 M24749 Type I Boss

#### **SPECIFICATIONS**

- Materials and design IAW MIL-DTL-242749
- Contact Glenair for other thread sizes and material options





52

## **Braided Ground Strap Hardware**

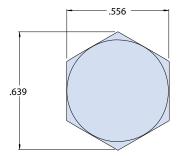


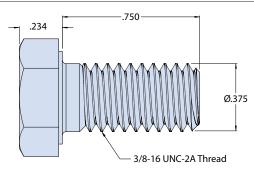
## **M1222** Bolt

#### **SPECIFICATIONS**

 Materials and design IAW MIL-DTL-1222

BOLT: HOW TO ORDER											
Sample Part Number	M1222	R	N	6	C	2	12	SD	N	N	
Product Series	MIL-DTL-1222 Bolt										
Fastener Type	R = Hex Cap Screw	R = Hex Cap Screw									
Bearing Surface	N = Does Not Apply										
Nominal Diameter	in $1/16$ ths of an inch (e.g. $6 = .3$	in 1/16ths of an inch (e.g. 6 = .375")									
Thread Type	C = Coarse (UNC)										
Thread Class	2 = Class 2A										
Nominal Length	in 1/16ths of an inch (e.g. 12 =	.75")									
Material Type	SD = Cold-Worked Grade 316										
Locking Element	N = No Locking Element										
Coating	N = No Coating									•	





#### AIRCRAFT POWER INTERCONNECT TECHNOLOGY

## **Crimp Terminal Lugs for TurboFlex**



### 851-005 Crimp Lugs



#### **FEATURES**

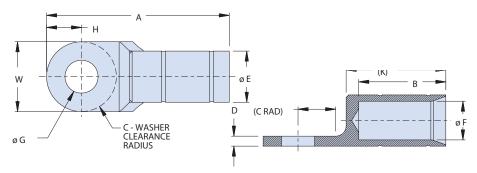
- Glenair 851 Series crimp terminal lugs are constructed from precision-machined high-conductivity copper alloy, purpose-built to fit TurboFlex high-flexibility power distribution cable
- Performance far exceeds commonly-used stamped and formed mil spec lugs
- Compatible with TurboFlex R and TurboFlex M

#### **MATERIAL SPECIFICATIONS**

Lug material: High-conductivity copper alloy Finish: Nickel plate per AMS2403, AMS 2404, or AMS2424

AUTOSHRINK DASH NO.						
Code	Color					
-0	Black					
-1	Brown					
-2	Red					
-3	Orange					
-4	Yellow					
-5	Green					
-6	Blue					
-7	Violet					
-8	Gray					
-9	White					

HOW TO ORDER							
Sample Part Number		851-005	С	164	-CUNI	-1	
Basic Part Number	Crimp Terminal Lugs for TurboFlex cable						
AWG Code / Size See Size Code table							
Nominal Stud Size Dash No,	See Dimensions table						
Material / Finish	CUNI = Copper / Nickel (ı	max. temperatur	e 260°0	<b>(</b> )			
Autoshrink Option  Add dash no. to include Autoshrink (See Tables). Omit for lug only.							



	COPPER TERMINAL CRIMP TOOL AND DIE SET								
Lug Size	AS5259/1 Crimping Head*	AS5259/4 Crimping Head*	AS5259/3 Crimping Tool	AS5259/5 Crimping Tool					
	Die Set	Die Set	Die Set	Die Set					
12-10		See note	below**						
8	MS90485-8	M5259/7-001	MS90485-8	M5259/7-001					
6	MS90485-6	M5259/7-002	MS90485-6	M5259/7-002					
4	MS90485-4	M5259/7-003	MS90485-4	M5259/7-003					
2	MS90485-2	M5259/7-004	MS90485-2	M5259/7-004					
0	MS90485-01	M5259/7-006	MS90485-01	M5259/7-006					
00	MS90485-02	M5259/7-007	MS90485-02	M5259/7-007					
000	MS90485-03	N/A	N/A	N/A					
0000	MS90485-04	N/A	N/A	N/A					

\*Requires Pump per AS5259/2.

Removal or cutting off of flash after crimping will result in exposed base metal. Glenair Autoshrink may be applied over the crimp barrel and wire, to environmentally protect exposed area. (see How to Order for Autoshrink option)

<sup>\*\*</sup>Crimp size 12-10 lugs using tool M22520/38-01, cavity c, yellow (12 or 10awg wire).

AUTOSHR	INK BA	SE PART NUMBER
Terminal	Base	Base P/N (Ref.)
12-10	12	777-035-0080-1
12-10	10	777-035-0125-1
8		777-035-0156-1.5
6		777-035-0156-1.5
4		777-035-0250-2
2		777-035-0250-2
0		777-004-02-2
00		777-004-02-2
000		777-004-02-3
0000		777-004-02-3

			SIZE	COL	E				
Terminal Size	12-10	8	6	4	2	0	00	000	0000
AWG Code	В	C	D	Е	F	G	н	1	J

	WIRE STRIP LENGH									
	minal Size	12-10	8	6	4	2	0	00	000	0000
S	trip	.51	.70	.75	.87	1.03	1.09	1.21	1.42	1.62
Le	ngth	(12.95)	(17.78)	(19.05)	(22.10)	(26.16)	(27.69)	(30.73)	(36.07)	(41.15)

# AIRCRAFT POWER INTERCONNECT TECHNOLOGY Crimp Terminal Lugs for TurboFlex



## 851-005 Crimp Lugs

DIMENSIONS														
Stud Size	Wire	Stud Size	A Max	B Min	C Min	[	)	Ø E O.D.	Ø F I.D.	(	3	W 8	& H*	[K]
Dash No.	Size	Stud Size	AWIAX	DIVIIII	Rad	Max	Min	Ø L O.D.	W F I.D.	Max	Min	Max	Min	[K]
190	12-10	10 [.190]	.991 (25.17)	.443 (11.25)	.172 (4.37)	.080 (2.03)	.060 (1.52)	.235 (5.97)	.145 (3.68) .135 (3.43)	.203 (5.16)	.193 (4.90)	.391 (9.93)	.365 (9.27)	[.52]
312	12-10	5/16 [.312]	1.184 (30.07)	.443 (11.25)	.296 (7.52)	.080 (2.03)	.060 (1.52)	.235 (5.97)	.145 (3.68) .135 (3.43)	.338 (8.59)	.323 (8.20)	.547 (13.89)	.485 (12.32)	(.52)
375	12-10	3/8 [.375]	1.241 (31.52)	.443 (11.25)	.328 (8.33)	.080 (2.03)	.060 (1.52)	.235 (5.97)	.145 (3.68) .135 (3.43)	.400 (10.16)	.385 (9.78)	.598 (15.19)	.536 (13.61)	(.52)
164	8	8 [.164]	1.284 (32.61)	.633 (16.08)	.234 (5.94)	.084 (2.13)	.064 (1.63)	.285 (7.24)	.183 (4.65) .173 (4.39)	.178 (4.52)	.168 (4.27)	.429 (10.90)	.386 (9.80)	[.72] (18.29)
190	8	10 [.190]	1.284 (32.61)	.633 (16.08)	.234 (5.94)	.084 (2.13)	.064 (1.63)	.285 (7.24)	.183 (4.65) .173 (4.39)	.203 (5.16)	.193 (4.90)	.429 (10.90)	.386 (9.80)	[.72] (18.29)
250	8	1/4 [.250]	1.340 (34.04)	.633 (16.08)	.265 (6.73)	.084 (2.13)	.064 (1.63)	.285 (7.24)	.183 (4.65) .173 (4.39)	.275 (6.99)	.260 (6.60)	.478 (12.14)	.435 (11.05)	[.72] (18.29)
375	8	3/8 (.375)	1.451 (36.86)	.633 (16.08)	.328 (8.33)	.084 (2.13)	.064 (1.63)	.285 (7.24)	.183 (4.65) .173 (4.39)	0.400 (10.16)	0.385 (9.78)	.590"	0.547 (13.89)	(.72")
250	6.	1/4 (0.250)	1.492 (37.90)	.680 (17.27)	.265 (6.73)	.084 (2.13)	.064 (1.63)	.347 (8.81)	.225 (5.72) .215 (5.46)	0.275 (6.99)	0.260 (6.60)	0.503 (12.78)	0.460 (11.68)	(.80")
375	6	3/8 (0.375)	1.615 (41.02)	.680 (17.27)	.328 (8.33)	.084 (2.13)	.064 (1.63)	.347 (8.81)	.225 (5.72) .215 (5.46)	0.400 (10.16)	0.385 (9.78)	0.623 (15.82)	0.580 (14.73)	(.80")
190	4	10 [.190]	1.715 (43.56)	.800 (20.32)	.276 (7.01)	.096 (2.44)	.076 (1.93)	.438 (11.13)	.297 (7.54) .287 (7.29)	.203 (5.16)	.193 (4.90)	.628 (15.95)	.580 (14.73)	[.95] (24.13)
250	4	1/4 [.250]	1.715 (43.56)	.800 (20.32)	.276 (7.01)	.096 (2.44)	.076 (1.93)	.438 (11.13)	.297 (7.54) .287 (7.29)	.275 (6.99)	.260 (6.60)	.628 (15.95)	.580 (14.73)	[.95] (24.13)
312	4	5/16 [.312]	1.760 (44.70)	.800 (20.32)	.308 (7.82)	.096 (2.44)	.076 (1.93)	.438 (11.13)	.297 (7.54) .287 (7.29)	.338 (8.59)	.323 (8.20)	.648 (16.46)	.605 (15.37)	[.95] (24.13)
375	4	3/8 [.375]	1.780 (45.21)	.800 (20.32)	.328 (8.33)	.096 (2.44)	.076 (1.93)	.438 (11.13)	.297 (7.54) .287 (7.29)	.400 (10.16)	.385 (9.78)	.648 (16.46)	.605 (15.37)	[.95] (24.13)
312	2	5/16 [.312]	2.002 (50.85)	.960 (24.38)	.343 (8.71)	.109 (2.77)	.089 (2.26)	.532 (13.51)	.371 (9.42) .361 (9.17)	.338 (8.59)	.323 (8.20)	.711 (18.06)	.668 (16.97)	[1.13] (28.70)

# AIRCRAFT POWER INTERCONNECT TECHNOLOGY Crimp Terminal Lugs for TurboFlex



## 851-005 Crimp Lugs

						DIME	ENSIONS	(CONT.)						
Stud Size	Wire	Stud Size	A Max	B Min	C Min	[	)	Ø E O.D.	Ø F I.D.	(	i	W 8	≩ H*	[K]
Dash No.	Size	Stud Size	Aiviax	DIVIIII	Rad	Max	Min	Ø L 0.D.	Ø F I.D.	Max	Min	Max	Min	[K]
375	2	3/8 [.375]	2.002 (50.85)	.960 (24.38)	.343 (8.71)	.109 (2.77)	.089 (2.26)	.532 (13.51)	.371 (9.42) .361 (9.17)	.400 (10.16)	.385 (9.78)	.711 (18.06)	.668 (16.97)	[1.13] (28.70)
437	2	7/16 [.437]	2.153 (54.69)	.960 (24.38)	.453 (11.51)	.109 (2.77)	.089 (2.26)	.532 (13.51)	.371 (9.42) .361 (9.17)	.463 (11.76)	.448 (11.38)	.804 (20.42)	.740 (18.80)	[1.13] (28.70)
375	0	3/8 [.375]	2.207 (56.06)	1.018 (25.86)	.418 (10.62)	.125 (3.18)	.105 (2.67)	.615 (15.62)	.466 (11.84) .456 (11.58)	.400 (10.16)	.385 (9.78)	.853 (21.67)	.810 (20.57)	[1.19] (30.23)
437	0	7/16 [.437]	2.267 (57.58)	1.018 (25.86)	.453 (11.51)	.125 (3.18)	.105 (2.67)	.615 (15.62)	.466 (11.84) .456 (11.58)	.463 (11.76)	.448 (11.38)	.903 (22.94)	.860 (21.84)	[1.19] (30.23)
500	0	1/2 [.500]	2.267 (57.58)	1.018 (25.86)	.453 (11.51)	.125 (3.18)	.105 (2.67)	.615 (15.62)	.466 (11.84) .456 (11.58)	.525 (13.34)	.510 (12.95)	.903 (22.94)	.860 (21.84)	[1.19] (30.23)
375	00	3/8 [.375]	2.436 (61.87)	1.141 (28.98)	.473 (12.01)	.129 (3.28)	.109 (2.77)	.691 (17.55)	.523 (13.28) .513 (13.03)	.400 (10.16)	.385 (9.78)	.956 (24.28)	.913 (23.19)	[1.31] (33.27)
437	00	7/16 [.437]	2.436 (61.87)	1.141 (28.98)	.473 (12.01)	.129 (3.28)	.109 (2.77)	.691 (17.55)	.523 (13.28) .513 (13.03)	.463 (11.76)	.448 (11.38)	.956 (24.28)	.913 (23.19)	[1.31] (33.27)
500	00	1/2 [.500]	2.436 (61.87)	1.141 (28.98)	.473 (12.01)	.129 (3.28)	.109 (2.77)	.691 (17.55)	.523 (13.28) .513 (13.03)	.525 (13.34)	.510 (12.95)	.956 (24.28)	.913 (23.19)	[1.31] (33.27)
375	000	3/8 [.375]	2.752 (69.90)	1.348 (34.24)	.513 (13.03)	.140 (3.56)	.120 (3.05)	.775 (19.68)	.588 (14.94) .578 (14.68)	.400 (10.16)	.385 (9.78)	1.053 (26.75)	1.010 (25.65)	[1.54] (39.12)
437	000	7/16 [.437]	2.752 (69.90)	1.348 (34.24)	.513 (13.03)	.140 (3.56)	.120 (3.05)	.775 (19.68)	.588 (14.94) .578 (14.68)	.463 (11.76)	.448 (11.38)	1.053 (26.75)	1.010 (25.65)	[1.54] (39.12)
500	000	1/2 [.500]	2.752 (69.90)	1.348 (34.24)	.513 (13.03)	.140 (3.56)	.120 (3.05)	.775 (19.68)	.588 (14.94) .578 (14.68)	.525 (13.34)	.510 (12.95)	1.053 (26.75)	1.010 (25.65)	[1.54] (39.12)
375	0000	3/8 [.375]	3.053 (77.55)	1.547 (39.29)	.560 (14.22)	.150 (3.81)	.130 (3.30)	.865 (21.97)	.656 (16.66) .646 (16.41)	.400 (10.16)	.385 (9.78)	1.148 (29.16)	1.095 (27.81)	[1.75] (44.45)
437	0000	7/16 [.437]	3.053 (77.55)	1.547 (39.29)	.560 (14.22)	.150 (3.81)	.130 (3.30)	.865 (21.97)	.656 (16.66) .646 (16.41)	.463 (11.76)	.448 (11.38)	1.148 (29.16)	1.095 (27.81)	[1.75] (44.45)
500	0000	1/2 [.500]	3.053 (77.55)	1.547 (39.29)	.560 (14.22)	.150 (3.81)	.130 (3.30)	.865 (21.97)	.656 (16.66) .646 (16.41)	.525 (13.34)	.510 (12.95)	1.148 (29.16)	1.095 (27.81)	[1.75] (44.45)
*H Max an	d Min di	mensions sh	all be one	half of the	W Max an	d Min di	mension	s, respectively.					'	

ELECTRICAL POWER PROPULSION SYSTEM CONNECTORS, CABLES, AND ACCESSORIES

# PWRLINE HV

High-current power feeder system and current return network for composite fuselage eVTOL aircraft applications



# Unique power feeder system eliminates power line routing and termination issues

For electrical eVTOL motor applications that require discrete routing of 3-phase and DC power lines, Glenair has developed the PwrLine HV. PwrLine HV replaces conventional terminal strips and terminal lugs with a solution that eliminates the issues associated with routing large gauge cables. The PwrLine HV uses a crimp contact system that can accommodate tolerancing variations that routinely occur with large cables. Routing power feeders through the 3-D spatial environment routinely creates installation and terminal lug orientation issues. PwrLine HV eliminates these problems with its unique rotatable pin/socket architecture and unique in-line insulation packaging.

PwrLine HV is a complete power feeder and current return network system that includes contacts, cables, holding fixtures, mountable connector packages, as well as high-voltage terminal blocks and lugs for reduction of partial discharge and corona. Lightweight, high-durability Duralectric terminal blocks, hoods, and cable jackets deliver outstanding environmental and insulation performance.



PwrLine HV: a complete power feeder ecosystem with matched, compatible components

# HIGH-CURRENT / HIGH-VOLTAGE PwrLine HV Power Feeder System



### For aircraft electrical power distribution systems

#### **PWRLINE HV POWER FEEDER SYSTEM COMPONENTS**

- Resolves cable lug misalignment issues
- Eliminates twisted cable (rotational) problems during assembly
- Integrated / compatible power line feeder system used in combination with PowerLoad and other power distribution system connectors



PwrLine HV power feeder system uses Band-Master ATS® termination bands

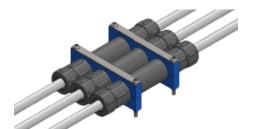


High-current power feeder contact and cable system

Mated contact pair inside self-vulcanizing Duralectric insulator

Lightweight outer composite split shell with shield banding platforms

Assembled and ready for shield band termination with Band-Master ATS® bands



Schematic illustration with line block mounting hardware...



...strut clamp mounting hardware...



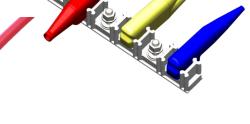
... and P-clamp mounting hardware



Multiple designs of high-voltage terminal blocks with accommodation for PwrLine HV lugs and/or standard lugs



Conventional and PwrLine HV terminal lugs



Color-coded terminal lug hoods made from high-performance Duralectric material



# MISSION-CRITICAL Glenair. INTERCONNECT SOLUTIONS

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