

REV.  
B

AS21980™

FEDERAL SUPPLY CLASS  
5940

## RATIONALE

LIMITED SCOPE REVISION REQUIRED TO CORRECT CRIMP TOOL LISTING IN TABLE 1.

## NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS21608.

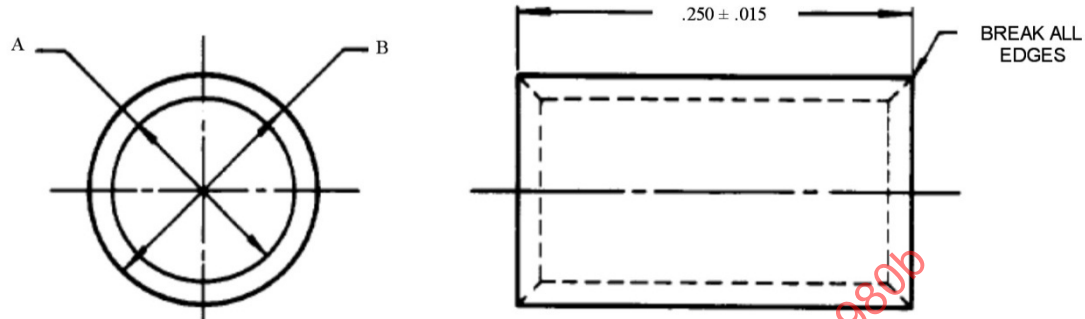


FIGURE 1 - OUTER FERRULE CONFIGURATION

REQUIREMENTS (REFER TO AS21608):

1. BASE MATERIAL SHALL BE BRASS ALLOY WITH ROCKWELL HARDNESS 15T 65 MAX. FINISH SHALL BE TIN IN ACCORDANCE WITH ASTM B545 TIN OR ASTM B339 AS APPLICABLE.
2. DIMENSIONS IN INCHES SHALL BE IN ACCORDANCE WITH TABLE 1 AND FIGURE 1.
3. MARKING SHALL BE COLOR CODED IN ACCORDANCE WITH TABLE 1.
4. REMOVE ALL BURRS AND SHARP EDGES. CHAMFER OR ROUND EDGES ARE ACCEPTABLE.
5. REQUIRED CRIMP TOOLS ARE M22520/5 OR /10 WITH VARIOUS DIES AS SPECIFIED. IF CLASS II TOOLS ARE USED (QUALIFICATION CERTIFICATION REQUIRED), SUPPLIER SHALL MAKE AVAILABLE TO THE USER, COMPLETE DETAILS OF THE TOOLS REQUIRED FOR TERMINATION OF FERRULE.
6. SUPPLIER NAME OR SYMBOL IN ACCORDANCE WITH AIR1351 AND PART NUMBER REQUIRED ON UNIT PACKAGING.
7. PART NUMBER:

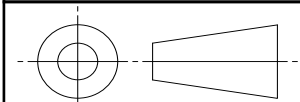
MS21980 -101

FERRULE DASH NUMBER (SEE TABLE 1)

MS PART NUMBER PREFIX AND AS21980 DETAIL SPECIFICATION NUMBER

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS21980B/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS21608



## AEROSPACE STANDARD

FERRULE, OUTER, UNINSULATED,  
SHIELD TERMINATING, TYPE I, TWO PIECE,  
CLASS I, FOR SHIELDED CABLES

AS21980™  
SHEET 1 OF 3

REV.  
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**TABLE 1 - OUTER FERRULE CONSTRUCTION DETAIL**


DASH NO.	COLOR CODE	A DIA		B DIA		M22520/5 CRIMPING DIE DASH NO. (REF)	DIE CLOSURE	M22520/10 CRIMPING DIE DASH NO.	DIE CLOSURE
		MIN	MAX	MIN	MAX				
-101	NO COLOR	.098	.104	.121	.127	-33	B	-11	A
-128	BLUE	.125	.131	.147	.155	-35	B	-13	A
-149	PURPLE	.146	.152	.176	.182	-37	B	-15	A
-156	YELLOW	.153	.159	.190	.196	-39	B	-06	A
-175	BLUE	.172	.178	.212	.218	-41	B	-17	A
-187	ORANGE	.184	.190	.224	.230	-43	B	-19	A
-194	RED	.191	.197	.223	.229	-43	B	-19	A
-199	NO COLOR	.196	.202	.232	.238	-43	B	-19	A
-205	YELLOW	.202	.208	.242	.248	-19	B	-21	A
-219	GREEN	.216	.222	.247	.253	-19	B	-21	A
-225	PURPLE	.222	.228	.253	.259	-45	B	-23	A
-232	ORANGE	.229	.235	.260	.266	-45	A	-25	A
-261	YELLOW	.258	.264	.294	.300	-19	A	-27	A
-275	NO COLOR	.272	.278	.303	.309	-43	A	-19	A
-281	PURPLE	.278	.284	.328	.334	-41	A	-06	A
-287	BLUE	.284	.290	.324	.330	-41	A	-06	A
-297	GREEN	.294	.300	.332	.338	-41	A	-06	A
-312	YELLOW	.309	.315	.359	.365	-39	A	-06	A
-327	NO COLOR	.324	.330	.369	.375	-37	A	-15	A
-348	ORANGE	.345	.351	.391	.397	-35	A	-13	A
-359	PURPLE	.356	.362	.396	.402	-33	A	-11	A
-375	YELLOW	.372	.378	.403	.409	-47	A		
-405	RED	.402	.408	.450	.456	-23	A		
-415	BLUE	.412	.418	.460	.466	-23	A		
-460	NO COLOR	.457	.463	.507	.513	-53	A		
-500	GREEN	.497	.503	.547	.553	-21	A		

**APPLICATIONS:**

1. AS18121 OUTER FERRULE IS USED WITH AS21981 INNER FERRULE AS INSULATION REPLACEMENT.
2. AS21980 OUTER FERRULE IS USED WITH AS21981 INNER FERRULE AS UN-INSULATED REPLACEMENT.
3. AS21981 INNER FERRULE AND AS21980 OUTER FERRULE SELECTION SHALL BE SELECTED BASED ON THE SMALLEST INNER DIAMETER (DIMENSION A) THAT CLEARS THE OUTER DIAMETER OF THE CABLE OR SHIELD BASED ON THE INSTALLATION METHOD CHOSEN IN ARP7053. AS21980 OUTER FERRULE CRIMPING TOOL AND DIE COMBINATION ARE IN ACCORDANCE WITH TABLE 1.
4. TIN PLATE FERRULES SHOULD NOT BE EXPOSED TO TEMPERATURES ABOVE 150 °C.
5. TIN PLATE CONFIGURATIONS ARE NOT FOR SPACE APPLICATIONS. AS21608 DOES NOT RESTRICT THE USE OF PURE TIN FINISHES WHICH MAY CAUSE TIN WHISKER GROWTH. FOR MORE INFORMATION ON TIN WHISKERS, REFER TO AIR5444.

**SUPERSESSON:**

1. THE MILITARY STANDARD (MS) FERRULE SPECIFICATIONS MS21980, MS21981, AND MS18121 ARE SUPERSEDED BY AS21980, AS21981, AND AS18121, RESPECTIVELY.
2. THE MILITARY SUPERSEDED MS25311 PART NUMBERS BY MS21981 AND MS21980 PART NUMBERS AS INDICATED IN TABLE 3.

	<b>AEROSPACE STANDARD</b>	<b>AS21980™</b> SHEET 2 OF 3	<b>REV.</b> <b>B</b>
	FERRULE, OUTER, UNINSULATED, SHIELD TERMINATING, TYPE I, TWO PIECE, CLASS I, FOR SHIELDED CABLES		