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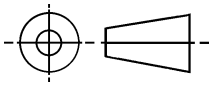

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AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR, PIN, CRIMP REMOVABLE, SHIELDED, SIZE 16 (FOR MIL-C-38999 SERIES I, II, III, IV AND MIL-C-24308 CONNECTORS)

AS39029/76
SHEET 1 OF 7

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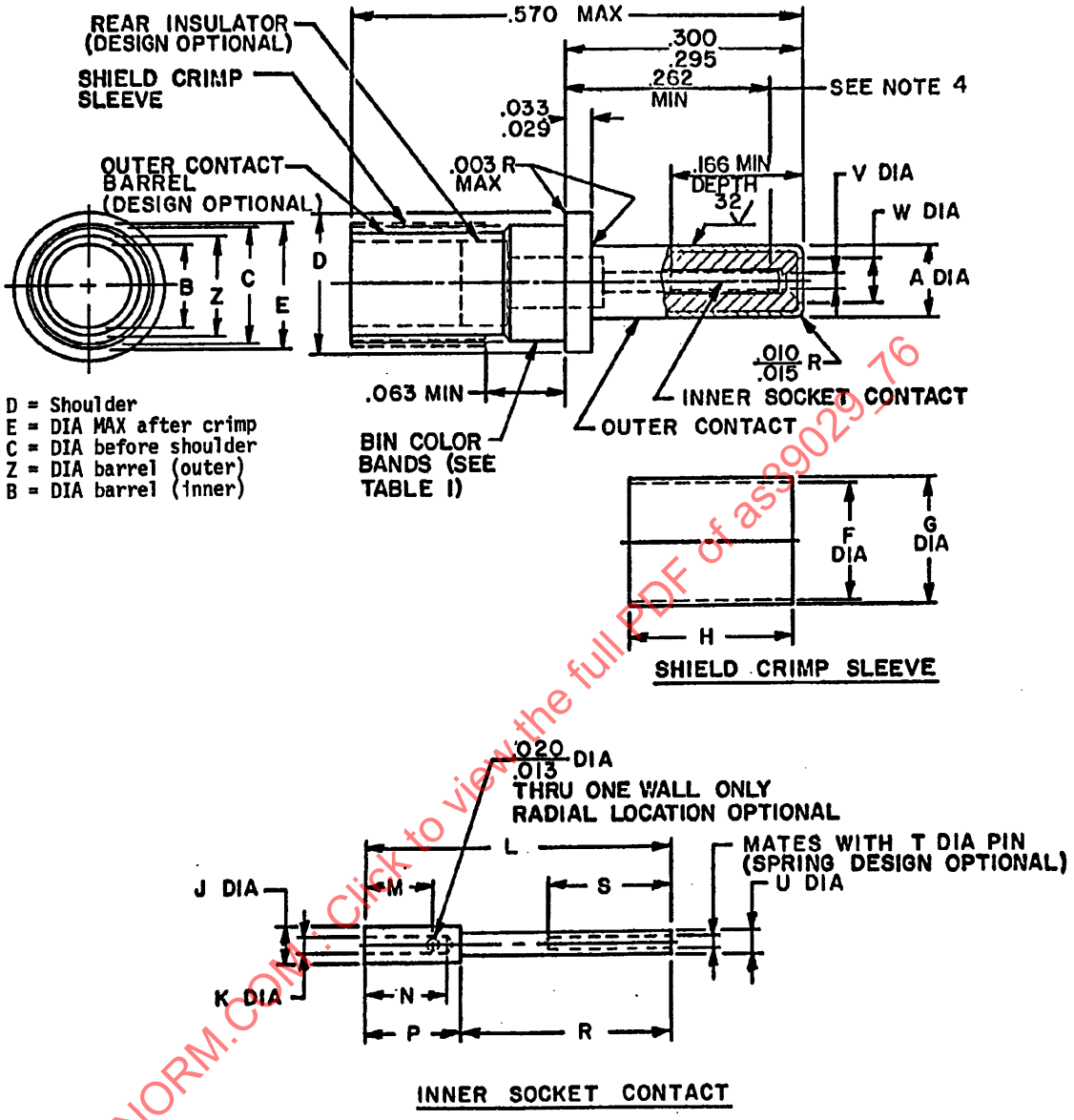

FIGURE 1. PIN CONTACTS.

BIN code	A Dia.	B Dia. Min.	C Dia.	D Dia.	E Dia. Max.	F Dia. Min.	G Dia. Max.	H	J Dia. Max.	K Dia. Min.	L REF
424	.0635 .0615	.0670	.103 .101	.130 .127	.108	.105	.120	.105 .095	.046	.0210	.392
425	↓	.0575	↓	↓	↓	.094	↓	↓	.046	.0210	↓
426	↓	.0670	↓	↓	↓	.105	↓	↓	.052	.0355	↓
427	.0635 .0615	.0575	.103 .101	.130 .127	.108	.094	.120	.105 .095	.046	.0270	.392

BIN code	M	N Min.	P	R	S Min.	T	U	V Dia.	W Dia.	Z Dia. Max.
424	.094 .087	.103	.125 .119	.271 .269	.156	.0155 .0145	.030 .028	.022 .018	.041 .038	.085
425	↓	↓	↓	↓	↓	↓	↓	↓	↓	.076
426	↓	↓	↓	↓	↓	↓	↓	↓	↓	.085
427	.094 .087	.103	.125 .119	.271 .269	.156	.0155 .0145	.030 .028	.022 .018	.041 .038	.076

INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
.003	.08	.027	.69	.046	1.17	.085	2.16	.119	3.02	.166	4.22
.010	.25	.028	.71	.052	1.32	.087	2.21	.120	3.05	.262	6.65
.013	.33	.029	.74	.0575	1.460	.094	2.39	.125	3.18	.269	6.83
.015	.38	.030	.76	.0615	1.562	.095	2.41	.127	3.23	.271	6.88
.018	.46	.033	.84	.063	1.60	.101	2.57	.130	3.30	.295	7.49
.020	.51	.0355	.902	.0635	1.613	.103	2.62	.145	3.68	.300	7.62
.021	.53	.038	.97	.067	1.70	.105	2.67	.155	3.94	.392	9.96
.022	.56	.041	1.04	.076	1.93	.108	2.74	.156	3.96	.570	14.48

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Dimensions shown apply after plating.
4. Point at which a square ended pin of the same basic diameter as the mating contact first engages the inner contact spring. Provision for clearance hole shall be provided.
5. Crimp deformation: The maximum diameter over the crimped portion of the shield crimp sleeve shall not exceed E diameter.

FIGURE 1. PIN CONTACTS - CONTINUED.

REQUIREMENTS:

Contacts shall comply with the reliability assurance provisions of MIL-STD-790 as specified in MIL-C-38999.

Dimensions, design characteristics, and configuration: See figure 1 and table I.

Mating contacts: MIL-C-39029/77 and MIL-C-39029/78.

Tools: See table II.

TABLE I. DESIGN CHARACTERISTICS.

BIN code	Color bands			Cable accommodated	Contact cavity size	Type	Class
	1st	2nd	3rd				
424	Yellow	Red	Yellow	M17/119-RG174 M17/113-RG316 M17/094-RG179 1/2/ Times AA3248 Teledyne 11299 Thermax 75-738-BCCWXE Tensolite 30888/L707YX-1 Haveg 8100207	16	D	B
425	Yellow	Red	Green	M17/093-RG178			
426	Yellow	Red	Blue	1/ Haveg 61-02051 Revere WH95623 (red shielded)			
427	Yellow	Red	Violet	1/ Haveg 30-00761 Haveg 30-02024 Haveg 30-02033 Tensolite 24713/A955KK1 Tensolite 26723/A955KK1			

1/ Or equivalent.
2/ High tensile strength copper alloy wire.

TABLE II. TOOLS.

BIN code	Inner contact		Outer contact		Installing tool	Removal tool
	Basic crimping tool	Positioner	Basic crimping tool	Positioner		
424, 425, 426, 427	M22520/2-01	M22520/2-35	M22520/4-01	M22520/4-02	M81969/8-07 or M81969/14-03	M81969/8-08 or M81969/14-03

Cable to contact information: See table III.

TABLE III. CABLE TO CONTACT INFORMATION.

BIN code	Cable accommodated	Inner contact tool selector setting no.
424	M17/119-RG174 M17/113-RG316 M17/094-RG179 1/ 2/ Times AA3248 Teledyne 11299 Thermax 75-738-BCCWXE Tensolite 30888/L707YX-1 Haveg 8100207	3 5 3 ↓
425	M17/093-RG178	3
426	1/ Haveg 61-02051 Revere WH95623 (red shielded)	4 4
427	1/ Haveg 30-00761 Haveg 30-02024 Haveg 30-02033 Tensolite 24713/A955KK1 Tensolite 26723/A955KK1	3 4 3 3 3

1/ Or equivalent.
2/ High tensile strength copper alloy wire.

Contact resistance: See table IV.
Test current:
Inner contact - 1 ampere.
Outer contact - 12 amperes.

Low signal level contact resistance (inner contact only): See table V.

Contact engagement and separation forces (inner socket contact only): The engagement depth shall be as encountered in normal service. The test pins shall be in accordance with MS3197 except the diameters shall be as specified in the following, and surface roughness shall not exceed 3 microinches. Provision for clearance hole shall be provided.

Test pin diameter (inch)	Minimum separation force (ounces)		Maximum engagement force (ounces)		Maximum average engagement force
	Initial	After conditioning	Initial	After conditioning	
.0155 $^{+.0002}_{-.0000}$	NA	NA	12.0	14.0	NA
.0145 $^{+.0000}_{-.0002}$	0.5	0.4	NA	NA	NA

Dielectric withstanding voltage (applied between inner and outer contact):
Test voltage:
At sea level - 800 Vac rms.
At 50,000 feet - 250 Vac rms.

Tensile strength (inner and outer contact crimp joint): See table V.