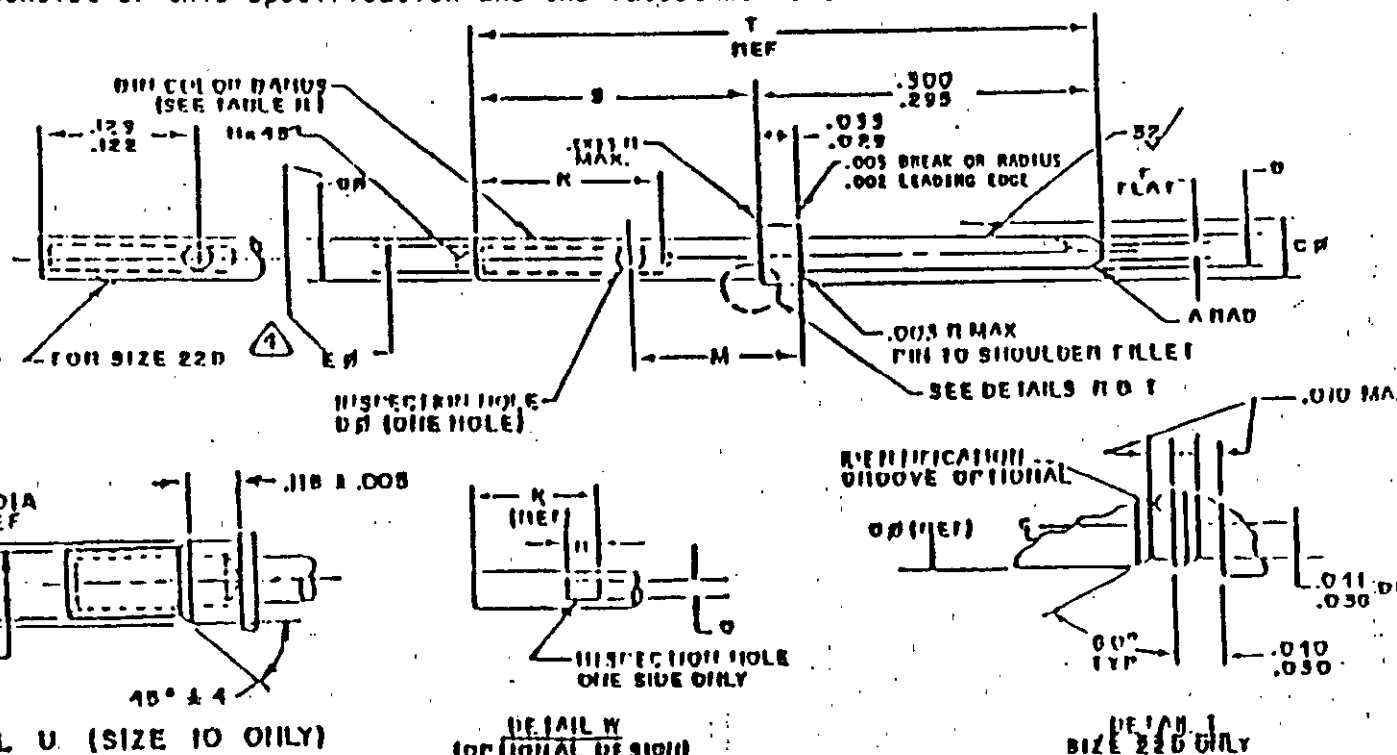


CONTACTS, ELECTRICAL CONNECTOR, PIN, CRIMP REMOVABLE,
(FOR MIL-C-38999 SERIES I, III AND IV AND MIL-C-29600 SERIES A CONNECTORS)

The complete requirements for acquiring the contacts described herein shall consist of this specification and the latest revision of MIL-C-39029.



NOTES:

1. Dimensions are in inches unless otherwise specified.
2. Metric equivalents are based upon 1 inch = 25.4 mm.
3. Dimensions apply after plating.
4. For BIN-614 only, diameters E and G shall be concentric within .003 full indicator movement (FIM) regardless of feature size S ; for all other contact sizes, diameters E and G to be concentric within .001 FIM of maximum material condition M .
5. Manufacturers trademark per AIR-1351

FSC 5935.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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TABLE I. Dimensions.

BIN Code	A Radius	BØ	CØ	DØ	EØ	FØ	GØ	H	K	M	Q	R	S	T Ref
620	.020	.0305	.062	.022	.0355	.011 Max	.048	.005	.157	--	.022	.046	.237	.531
	.010	.0295	.060	.018	.0335		.046	.003	.141	--	.018	.018	.231	
621	.025	.041	.094	.032	.048	.015 Max	.070	.010	.229	.078	.032	.063	.237	.531
	.015	.039	.091	.026	.046		.068	.005	.209	.072	.026	.026	.231	
622	.025	.0635	.130	.042	.068	.030	.103	.010	.229	.088	.042	.073	.237	.531
	.020	.0616	.127	.036	.066	.011	.101	.005	.209	.082	.030	.036	.231	
623	.025	.095	.182	.042	.102	.062	.151	.016	.229	.088	.042	.073	.237	.531
	.020	.093	.179	.036	.098	.043	.148	.005	.209	.082	.030	.036	.231	
624	.025	.126	.242	.052	.140	.094	.213	.016	.385	.115	N/A	N/A	.405	.647
	.020	.124	.238	.040	.134	.074	.207	.005	.355	.108			.395	

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	.0762	.041	1.041	.091	2.311	.157	3.988
.005	.1270	.042	1.067	.093	2.362	.179	4.547
.010	.2540	.043	1.092	.094	2.388	.182	4.623
.011	.2794	.046	1.168	.095	2.413	.207	5.258
.015	.3810	.048	1.219	.098	2.489	.209	5.309
.016	.4064	.060	1.524	.101	2.565	.213	5.410
.018	.4572	.0616	1.565	.102	2.591	.229	5.817
.020	.5080	.062	1.575	.103	2.616	.231	5.867
.022	.5588	.063	1.600	.108	2.743	.237	6.020
.025	.6350	.0635	1.613	.115	2.921	.238	6.045
.026	.6604	.066	1.676	.124	3.150	.242	6.147
.0295	.7493	.068	1.727	.126	3.200	.252	6.401
.030	.7620	.070	1.778	.127	3.226	.255	6.401
.0305	.7747	.072	1.829	.130	3.302	.255	9.017
.032	.8128	.073	1.854	.134	3.404	.252	9.779
.0335	.8509	.074	1.880	.140	3.556	.237	10.033
.0355	.9017	.078	1.981	.141	3.581	.395	10.287
.036	.9144	.082	2.083	.148	3.759	.405	13.49
.039	.9906	.088	2.235	.151	3.835	.531	16.434
.040	1.016					.647	

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TABLE II. Design characteristics.

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
620	Blue	Red	Black	22	22D	A	B
621	Blue	Red	Brown	20	20		
622	Blue	Red	Red	16	16		
623	Blue	Red	Orange	12	12		
624	Blue	Red	Yellow	10	10		

TABLE III. Tools.

Wire barrel size	Basic crimping tool	Positioner	Installing tool	Removal tool
22D	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02
20	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 Red M22520/2-10 M22520/7-08	M81969/14-10 M81969/8-05	M81969/14-10 M81969/8-06
16	M22520/1-01 M22520/7-01	M22520/1-04 Blue M22520/7-04	M81969/8-07 M81969/14-03	M81969/8-08 M81969/14-03
12	M22520/1-01	M22520/1-04 Yellow	M81969/14-04 M81969/8-09	M81969/14-04 M81969/8-10
10	M22520/XX 1/	M22520/XX 1/	M81969/8-XX 1/ M81969/14-05	M81969/8-YY 1/ M81969/14-05

1/ To be determined

REQUIREMENTS:

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

Dimensions: See Figure 1 and Table I.

Design characteristics and configuration: See Figure 1 and Table II.

Tools: See Table III.

Mating contacts: MIL-C-39029/106.

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REQUIREMENTS (continued):

Durability: 1500 cycles.

Vibration: The vibration requirements shall consist of those tests specified in MIL-C-38999. The contact sample group shall be 12 contacts, divided equally between the three separate vibration tests of MIL-C-38999 for Series III connectors.

Shock: The shock requirements shall consist of those tests specified in MIL-C-38999. The contact sample group shall be divided in half and each group subjected to the separate shock test of MIL-C-38999 for Series III connectors.

Qualification: The qualification requirements shall consist of the sample numbers and tests specified in MIL-C-39029 for type A contacts with localized finish. For those tests which require the use of a connector pair, either a composite or metal shell connector pair may be utilized. Caution should be used if exceeding the rated durability cycles of a metal shell connector. For vibration and shock testing, accessories shall be as specified in MIL-C-39029.

Periodic qualification: The manufacturer shall forward a report every 24 months to the qualifying activity. The periodic qualification requirements shall consist of those tests specified for qualification except for vibration and shock.

QPL evaluating activity: Naval Avionics Center, B/444, 6000 East 21st Street, Indianapolis, Indiana 46219-2189.

Material: Base: Conductive copper alloy.

Plating: Contacts shall be plated to meet or exceed the performance requirements of MIL-C-39029 and withstand 1500 cycles of durability (see 4.6.5). Contact finish shall be 5 millionths minimum gold alloy over 45 millionths palladium alloy, over a suitable underplate, and compatible with gold finish as defined in of MIL-C-39029.

Example of part number: M39029/107-618

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Custodians:

Army - CR
Navy - AS
Air Force - 85

Preparing activity:

Navy - AS
(Project No. 5935-3812-02)

Review activities:

Army - AV
Navy - EC
Air Force - 15
DLA - ES
NASA - NA

User activities:

Army - MI
Navy - SH, MC
Air Force - 15