

DESCRIPTION/SPECIFICATIONS/INTERFACE DIMENSIONS

N series RF connectors are high quality medium size connectors for coaxial cables from .350" to 450" OD, however designs accommodate .078" to .875" cables. The N connector is a 50 ohm constant impedance connector. VSWR is consistently low across its frequency range of 0 to 11 GHz. The mating face uses an air dielectric section. There is a 70 ohm constant impedance version (noted in the listings). The 70 ohm connector will not mate with the 50 ohm connector.

The N connector is a weatherproof unit and with its threaded coupling incurs low noise and withstands shock and vibration.

The N connector is the most popular medium size connector, widely used in test equipment. Items qualified to MIL-PRF-39012 are included in the listings and also appear in the latest QPL list for MIL-PRF-39012.

SPECIFICATIONS

ELECTRICAL

Nominal Impedance	50 ohms
Frequency Range	0 to 11 GHz
Voltage Rating	1000 volts rms
Dielectric Withstanding Voltage	2500 volts rms
Insulation Resistance	5000 megohms
VSWR (MIL-PRF-39012 cable connectors)	1.30 max .5-11 GHz
Contact Resistance (MIL-PRF-39012 cable connectors)	
Center Contacts	1.0 milliohms
Outer Contacts (Silver plate)	2 milliohms
Insertion Loss (MIL-PRF-39012 cable connectors)	.15 dB max. at 9 GHz

ENVIRONMENTAL

Temperature Range	PTFE Insulators -85°F to +329°F (-65°C to +165°C)
	Revolite Insulators: -67°F to +185°F (-55°C to +85°C)
Vibration	MIL-STD-202 Method 204, test condition B
Shock	MIL-STD-202 Method 213, test condition I
Corrosion (salt spray)	MIL-STD-202 Method 101, test condition B
Moisture Resistance	MIL-STD-202 Method 106
Hermetic Seals	Leakage shall not exceed 1×10^{-6} cc/sec of tracer gas at atmospheric pressure
Compression Seals	Gasketed units show no leakage at 50 psi

INTERFACE

Per MIL-PRF-39012 or MIL-STD-348 as applicable

MECHANICAL

Mating	.325-24 threaded coupling per MIL-PRF-39012 or MIL-STD-348 as applicable
Cable Retention	
Non-crimp	75 pounds min.
Crimp	50 to 90 lbs. depending on cable size
Center Contact Retention	15 lbs. min. axial force except 6 lbs. min. RG400 and RG142. Applicable to captivated center contact connectors only
Connector Durability	500 cycles min.

MATERIAL

Except as noted in connector listings

Bodies & Fittings	1. Brass, ASTM-B-16 2. Stainless Steel, ASTM-A-582
Crimp Sleeves	Commercial Bronze Alloy 220
Male Center Contacts	Brass, ASTM-B-16
Female Center Contacts	Beryllium Copper ASTM-B-196
Male Outer Contacts	Phosphor Bronze ASTM-B-139
Insulators	PTFE, ASTM D1457
Gaskets & Seals	Silicone Rubber, Z7-R-765a, Class Ila, Grade 50

FINISHES

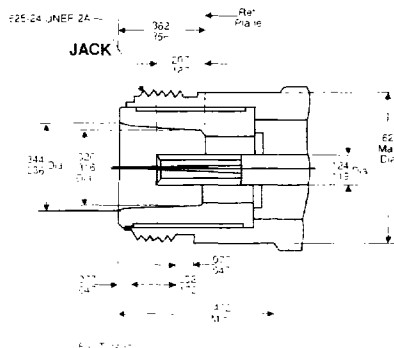
Contacts	1. Standard finish on all MIL-PRF-39012 items .00005 (.0012mm) min. hard gold plate per MIL-G-45204 over .00005 (.0012mm) min. nickel plate per QQ-N-290. 2. All other items .00005 (.0012mm) min. hard gold plate per MIL-G-45204 over copper, unless otherwise specified.
Bodies & Fittings	1. Standard finish .0002" (.005mm) min. silver plate, electro-deposited per QQ-S-365A plus Kings TR-4 ¹ electrolytic chromate treatment. 2. TR-5 ¹ - Kings tarnish resistant alloy electrodeposit finish.

Specifications are typical for straight plug configurations designed to MIL-PRF-39012 and may not apply to all connectors.

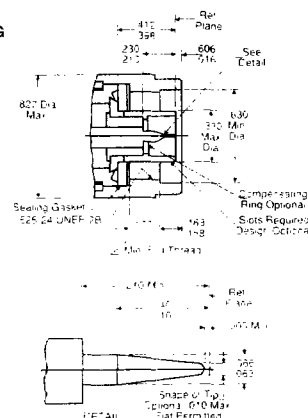
CABLE GROUPS - RG/U, M17		
D		58* 58A* 58C 141, 141A, M17-28-RG58, M17-111-RG303
E	E-1	55A 142, 142A 223 400 M17-84-RG223 M17-60-RG142, M17-128-RG400
	E-2	55* 55B* 142B, M17-84-RG223, M17-60-RG142
G	G-1	59 59A, 59B, 62, 62A, 62B, 62C 210 M17-29-RG59 M17-30-RG62 M17-97-RG210
	G-2	71, 71A 71B M17-90-RG71
K	K-1	5 5A 5B, 21 21A M17-73-RG212 M17-162-00001
	K-2	6, 6A M17-2-RG6
	K-3	143 143A, 212, 222, M17-112-RG304 M17-73-RG212, M17-162-00001
M	M-1	8 8A 213 M17-74-RG213
	M-2	11, 11A, M17-6-RG11
N	N-1	9 9A 9B, 214, M17-75-RG214
	N-2	13A, 216 M17-77-RG216
	N-3	225 M17-127-RG393
P		393, M17-127-RG393
R		14 14A, 217, 224† M17-78-RG217, M17-165-00002
T		17A 218 (219)†, M17-79-RG218 M17-79-RG219
UT		10 12 215 M17-74-RG215, M17-6-RG12

*For these cables, crimping the center contact is not recommended when crimp contact is indicated.

†Armored.



PLUG



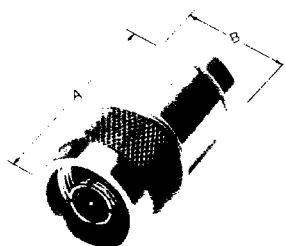


FIGURE 1

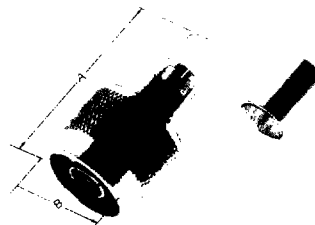


FIGURE 2

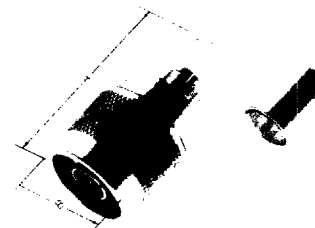


FIGURE 3

CONVENTIONAL CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS				CABLING	
	SILVER FINISH (or as noted)	TR-5 FINISH				A		B		CABLE TRIM CODE	
						in	mm	in	mm		
DE	UG-534B/U			1	Wire Holes	1.40	35.6	0.78	19.8	1014	
DE	UG-536C/U			1		1.41	35.8	0.78	19.8	1014	
G	UG-503A/U			1		1.38	35.1	0.78	19.8	1015.3	
K	KN-59-204		M39012-01-0101	1	Captive Contact Wire Holes	1.50	38.1	0.79	20.1	1016	
MN	KN-59-175		M39012-01-0005	1	Captive Contact Wire Holes	1.50	38.1	0.79	20.1	1016	
MN	UG-210/U			1	Wire Holes	1.50	38.1	0.79	20.1	1024	
MN	UG-21E/U			1	Wire Holes	1.50	38.1	0.79	20.1	1024	
MN	UG-1185/U			1	Captive Contact Wire Holes	1.50	38.1	0.78	19.8	1016	
T	KN-59-205		M39012-01-0104	1	Captive Contact Wire Holes	2.21	56.1	1.31	33.3	1018	

K-GRIP, JR. CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS				CABLING	
	SILVER FINISH (or as noted)	TR-5 FINISH				A		B		CABLE TRIM CODE	CRIMP DIE
						in	mm	in	mm		
D		KN-59-118		2	Wire Holes	1.45	36.8	0.78	19.8	415	KTH-2001
D	1205-19-5		M39012-01-0504	2	Captive Contact Wire Holes	1.50	38.1	0.78	19.8	489	KTH-2042
E-1		KN-59-122		2	Wire Holes	1.44	36.6	0.78	19.8	415	KTH-2001
E-1	KN-59-242		M39012-01-0503	2	Captive Contact Wire Holes	1.50	38.1	0.78	19.8	489	KTH-2042
M		KN-59-132		2	Crimp Contact	1.32	33.5	0.78	19.8	402	KTH-2003
M-1	KN-59-202	KN-59-201	M39012-01-0502	2	Captive Contact Wire Holes	1.53	38.9	0.78	19.8	480	KTH-2004
N-1		KN-59-104		2	Crimp Contact Wire Holes	1.32	33.5	0.78	19.8	402	KTH-2004
N-1 -3,P	KN-59-239		M39012-01-0501	2	Captive Contact Wire Holes	1.53	38.9	0.78	19.8	480	KTH-2004
BELDEN 8214		KN-59-197		3	Weatherproof K-Grip Jr. Construction Wire Holes	1.32	33.5	0.78	19.8	402	KTH-2063

ANGLE PLUGS

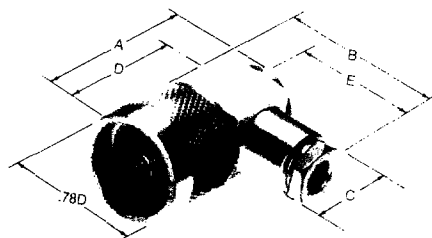


FIGURE 4

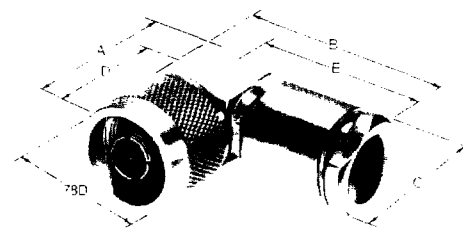


FIGURE 5

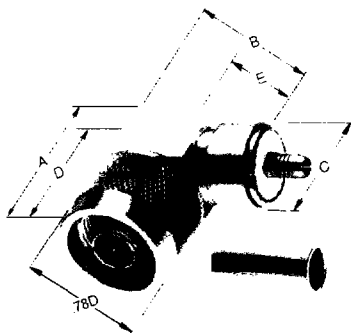


FIGURE 6

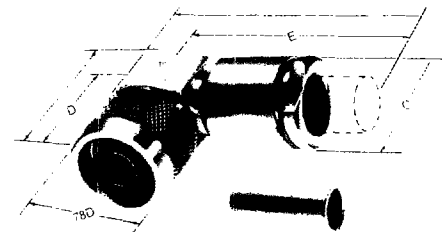


FIGURE 7

CONVENTIONAL CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS										CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		C		D		E		CBL. TRIM CODE	CRIMP DIE
						in	mm	in	mm	in	mm	in	mm	in	mm		
DE	KN-55-06			4	Wire Holes	1.37	34.8	1.21	30.7	0.50	12.7	1.01	25.7	0.82	20.8	1025	
M-1 N-1	KN-55-230		M39012/05-0101	5	Capt. Cont. , Wire Holes	1.38	35.1	1.72	43.7	0.75	19.1	1.00	25.4	1.33	33.8	1022	
M-1 N-1	UC-55-05/U			5	Wire Holes	1.38	35.1	1.72	43.7	0.75	19.1	1.01	25.7	1.33	33.8	1022	

K-GRIP, JR. CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS										CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		C		D		E		CBL. TRIM CODE	CRIMP DIE
						in	mm	in	mm	in	mm	in	mm	in	mm		
E-1	KN-55-245		M39012/05-0503	6	Capt. Cont., Wire Holes	1.34	34.0	2.10	53.3	0.66	16.8	1.01	25.7	1.71	43.4	489	KTH-2042
M-1	KN-55-244		M39012/05-0502	6	Capt. Cont., Wire Holes	1.34	34.0	2.14	54.4	0.66	16.8	1.01	25.7	1.71	43.4	480	KTH-2004
N-1, -3, P	KN-55-243		M39012/05-0501	6	Capt. Cont., Wire Holes	1.34	34.0	2.14	54.4	0.66	16.8	1.01	25.7	1.75	44.5	480	KTH-2004
N-1	KN-55-53			7	K-Grip Construction, Crimp Contact	1.38	35.1	1.66	42.2	0.75	19.1	1.01	25.7	1.27	32.3	211A	KTH-2004
RG-58, 58A, 58C, 141, 141A	KN-55-150			NS	Weatherproof K-Grip, Jr.											CP-403	KTH-2061

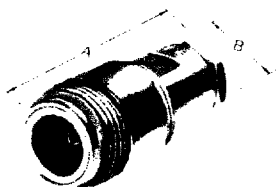


FIGURE 8

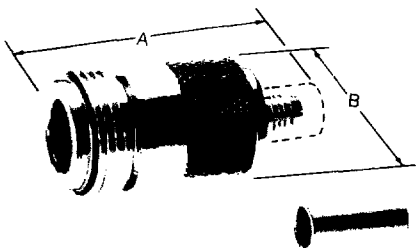


FIGURE 9



CONVENTIONAL CONSTRUCTION											
CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS				CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		CABLE TRIM CODE	CRIMP DIE
						in	mm	in	mm		
MN	KN-39-68		M39012/02-0003	8	Captive Contact.	1.58	40.1	0.75	19.1	1016	
MN	UG-230/U			8		1.58	40.1	0.75	19.1	1024	
MN	UG-1186/U			8	Captive Contact.	1.58	40.1	0.75	19.1	1016	

K-GRIP, JR. CONSTRUCTION											
CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS				CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		CABLE TRIM CODE	CRIMP DIE
						in	mm	in	mm		
D		KN-39-46		9		1.48	37.6	0.63	16.0	415	KTH-2001
E-1	KN-39-86		M39012/02-0503	9	Captive Contact	1.58	40.1	0.63	16.0	489	KTH-2042
M		KN-39-52		9		1.41	35.8	0.63	16.0	433	KTH-2003
N-1 -3	KN-39-83		M39012/02-0501	9	Captive Contact	1.61	40.9	0.63	16.0	480	KTH-2004

BULKHEAD JACKS

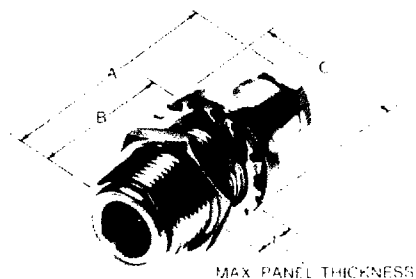


FIGURE 10

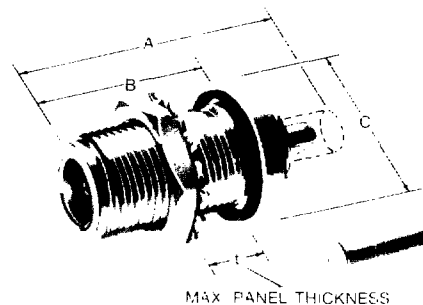
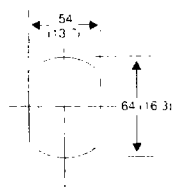


FIGURE 11



MTG. HOLE A

CONVENTIONAL CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS										CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		C		t		MTG. HOLE	CBL. TRIM CODE		
						in	mm	in	mm	in	mm	in	mm				
DE	UG-5588/U			10	Rear Mounting	1.68	42.7	0.92	23.4	0.81	20.6	0.32	8.1	A	1019		
E	KN-19-42			10	Rear Mtg. O-Ring Seal	1.43	36.3	0.92	23.4	0.88	22.4	0.34	8.6	A	1021		
MN	KN-19-114		M39012/03-0012	10	Rear Mtg.. Captive Cont.	1.77	45.0	0.92	23.4	0.88	22.4	0.34	8.6	A	1016		
MN	UG-190CA/U			10	Rear Mounting	1.78	45.2	0.92	23.4	0.88	22.4	0.34	8.6	A	10 24		

K-GRIP, JR. CONSTRUCTION

CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS										CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		C		t		MTG. HOLE	CBL. TRIM CODE	CRIMP DIE	
						in	mm	in	mm	in	mm	in	mm				
E-1	KN-19-151		M39012/03-0503	11	Rear Mtg. Captive Cont.	1.78	45.2	0.92	23.4	0.88	22.4	0.324	8.2	A	489	KTH-2042	
NP	KN-19-149		M39012/03-0501	11	Rear Mtg. Captive Cont.	1.82	46.2	0.92	23.4	0.88	22.4	0.324	8.2	A	480	KTH-2004	



FIGURE 12

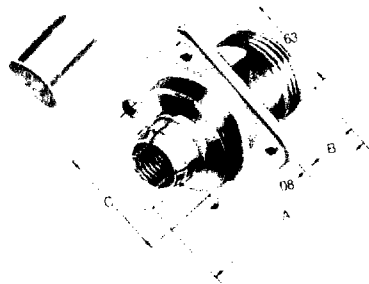
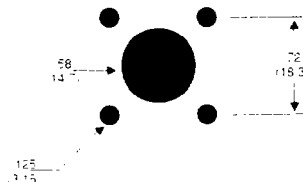
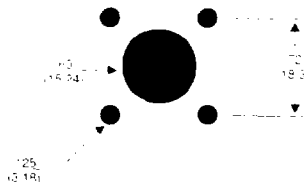


FIGURE 13



MTG. HOLE A



MTG. HOLE C

CONVENTIONAL CONSTRUCTION															
CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS								CABLING	
	SILVER FINISH	TR-5 FINISH				A		B		C		MTG. HOLE	CBL. TRIM CODE	CRIMP DIE	
						in	mm	in	mm	in	mm				
DE	UG-10050/U			12		1.42	36.1	0.55	16.8	0.08	2.0	0.54	13.7	A 1015	
MN	KN-10-110		M39012/02-0006	12	Captive Cont..	1.58	40.1	0.55	16.8	0.08	2.0	0.75	19.1	A 1016	

K-GRIP, JR. CONSTRUCTION																
CABLE GROUP	KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS								CABLING		
	SILVER FINISH	TR-5 FINISH				A		B		C		t		MTG. HOLE	CBL. TRIM CODE	CRIMP DIE
						in	mm	in	mm	in	mm	in	mm			
E-1	KN-10-140		M39012/02-0513	13	Crimp & Captive Cont.	1.58	40.1	0.55	16.8	0.08	2.0	0.53	16.0	C	489	KTH-2042

BULKHEAD RECEPTACLES PANEL RECEPTACLES

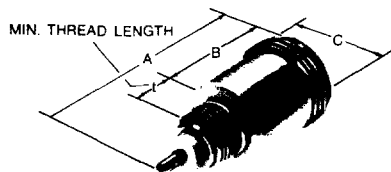


FIGURE 14

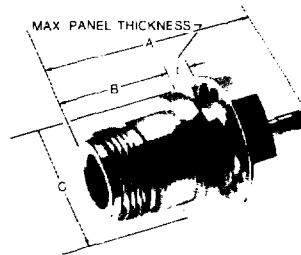


FIGURE 15

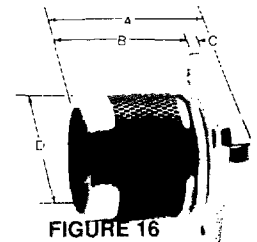


FIGURE 16

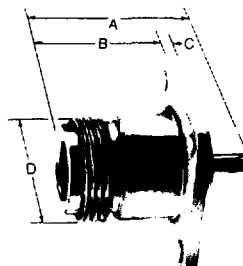


FIGURE 17

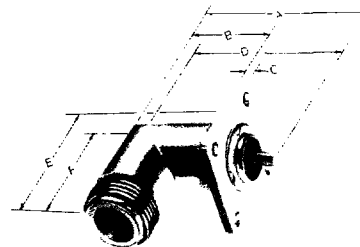
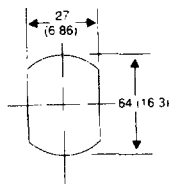
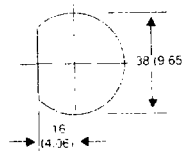


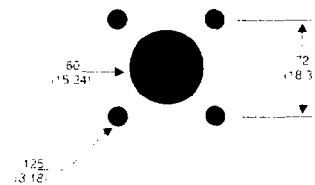
FIGURE 18



MTG. HOLE A



MTG. HOLE B



MTG. HOLE C

BULKHEAD RECEPTACLES

KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS												
SILVER FINISH (M39012)	TR-5 FINISH				A		B		C		D		E		F		t
in	mm				in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
	KN-79-93		14	Mtg. Hdwr. Not Supplied	1.28	32.5	0.70	17.8	0.63	16.0					0.262	6.7	B
		M39012/04-0001	15	Hermetic Seal, Front Mt.	1.61	40.9	0.71	18.0	0.81	20.6					0.263	6.7	A
			15	Hermetic Seal, Front Mt.	1.61	40.9	0.71	18.0	0.81	20.6					0.194	4.9	A

PANEL RECEPTACLES

KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	NOTES	DIMENSIONS												
SILVER FINISH (M39012)	TR-5 FINISH				A		B		C		D		E		F		t
in	mm				in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
		KN-79-45-M06	16	Male	1.11	28.2	0.74	18.8	0.08	2.0	0.76	19.3					C
		KN-79-85	M39012/04-0002	17		1.13	28.7	0.66	16.8	0.08	2.0	0.63	16.0				C
			17		1.12	28.4	0.66	16.8	0.08	2.0	0.63	16.0					C
			18	Right Angle	1.46	37.1	1.00	25.3	0.08	2.0	1.15	29.2	1.41	35.8	0.81	23.1	C

ADAPTERS WITHIN SERIES

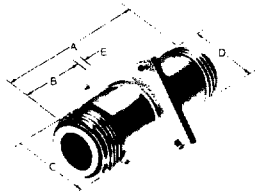


FIGURE 19



FIGURE 20



FIGURE 21



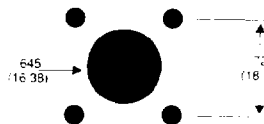
FIGURE 22



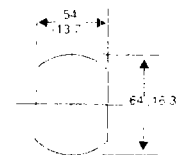
FIGURE 23



FIGURE 24



MTG. HOLE A



MTG. HOLE B

ADAPTERS WITHIN SERIES

KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	ADAPTER ENDS	NOTES	DIMENSIONS														
SILVER FINISH (or as noted)	TR-5 FINISH					A		B		C		D		E		F		t		MTG. HOLE
						In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	
KN-38-14			19	Jck-Jck		1.75	44.5	0.81	20.6	0.63	16.0	0.63	16.0	0.08	2.0			A		
UG-27CAU			20	Plg-Jck	Right Angle	1.32	33.5	1.37	34.8	1.01	25.7	0.88	24.9							
UG-27DBU			20	Plg-Jck	Cntr. Cntr.	1.32	33.5	1.37	34.8	1.01	25.7	0.88	24.9							
UG-30EAU			21	Jck-Jck	Hermetic Seal	1.54	39.1	0.88	21.8	0.88	22.4	0.88	24.9			0.262	6.7	B		
UG-57EAU			22	Plg-Plg		1.60	40.6	0.75	19.0											
1200-10		M55339/03-00027	20	Plg-Jck	Right Angle	1.18	30.0	1.37	35.1	0.90	22.9	0.88	24.9							
1200-12		M55339/04-00030	23	Jck-Jck	Hermetic Seal	1.54	39.1	0.88	21.8	0.88	22.4	0.75	19.1			0.285	7.2	B		
1200-13		M55339/07-00029	24	Jck-Jck		1.75	44.5	0.63	16.0											
1200-14		M55339/04-00001	21	Jck-Jck	O-Ring Seal	1.54	39.1	0.88	21.8	0.88	22.4	0.75	19.1			0.285	7.2	B		

TERMINATIONS ACCESSORIES

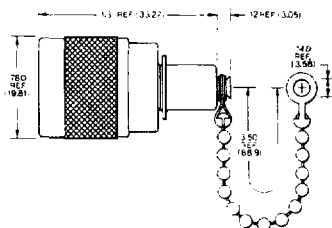


FIGURE 26

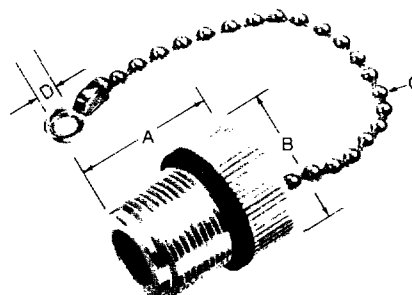


FIGURE 27

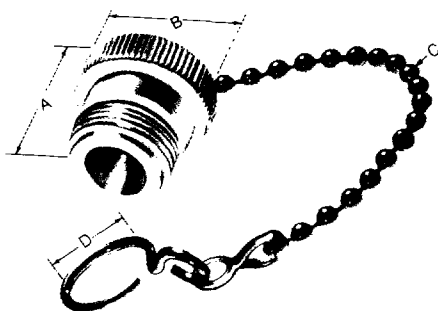


FIGURE 28

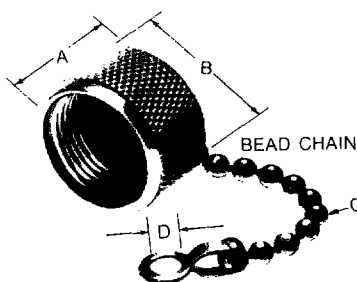


FIGURE 29

TERMINATIONS									
KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	DESCRIPTION	NOTES	DIMENSIONS			
SILVER FINISH	TR-5 FINISH					A in mm	B in mm	C in mm	D in mm
	1385-7-35		26	Male without Chain	75ohm, 1%, 1/2 watt				

ACCESSORIES													
KINGS PART NUMBER		MILITARY NUMBER (SILVER ONLY)	FIG. NO.	DESCRIPTION	NOTES	DIMENSIONS							
SILVER FINISH	TR-5 FINISH					A		B		C		D	
						in	mm	in	mm	in	mm	in	mm
KN-88-05			27	Cap - Female with Bead Chain		0.95	24.1	0.75	19.1	4.38	111.3	0.14	3.6
KN-88-12			28	Cap - Female with Bead Chain		0.84	21.3	0.75	19.1	4.50	114.3	0.48	12.2
KN-88-28		M39012/25-0011	29	Cap - Male with Bead Chain		0.55	14.0	0.75	19.1	2.5	63.5	0.14	3.6
KN-88-31		M39012/25-0012	29	Cap - Male with Safety Chain		0.55	14.0	0.75	19.1	3.75	95.3	0.54	13.4