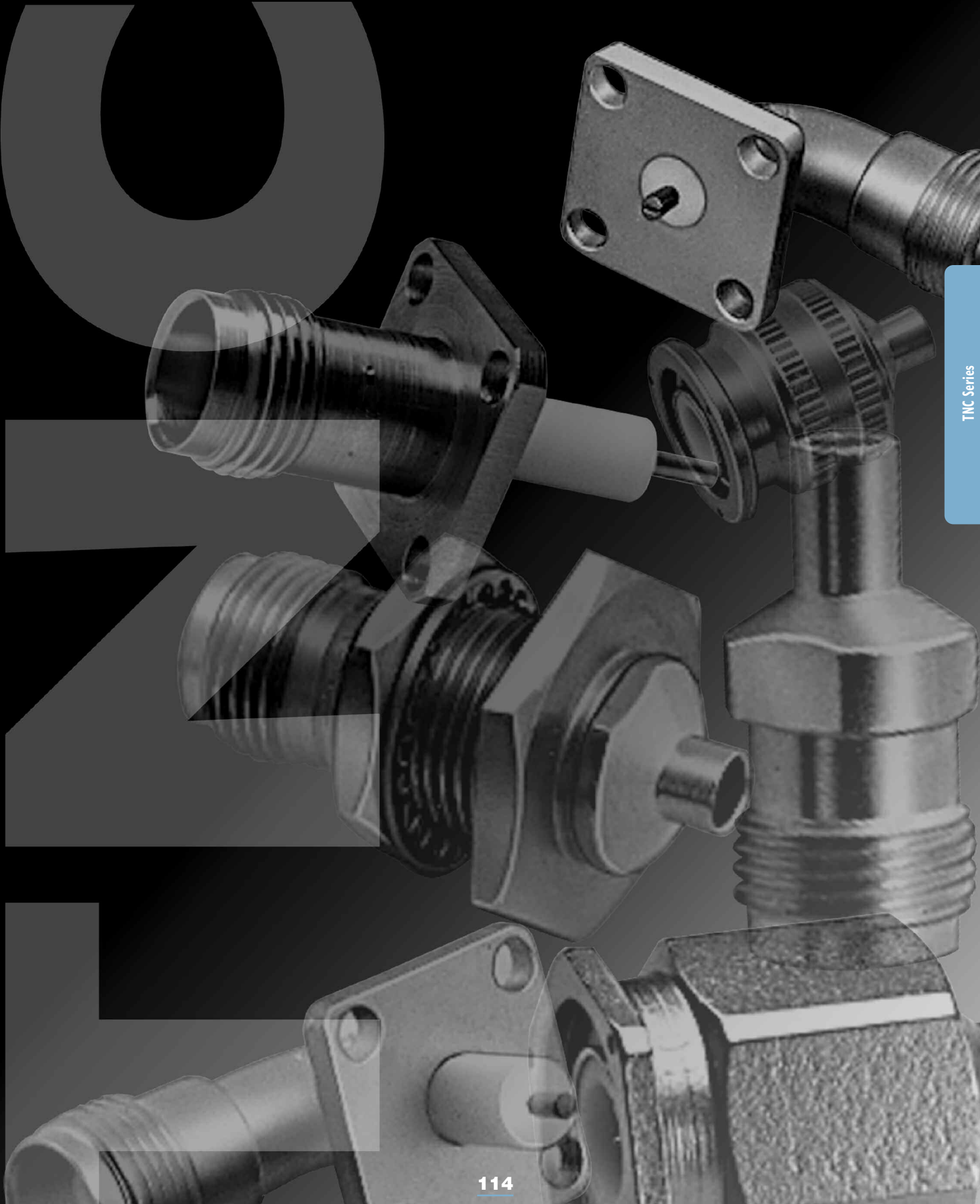


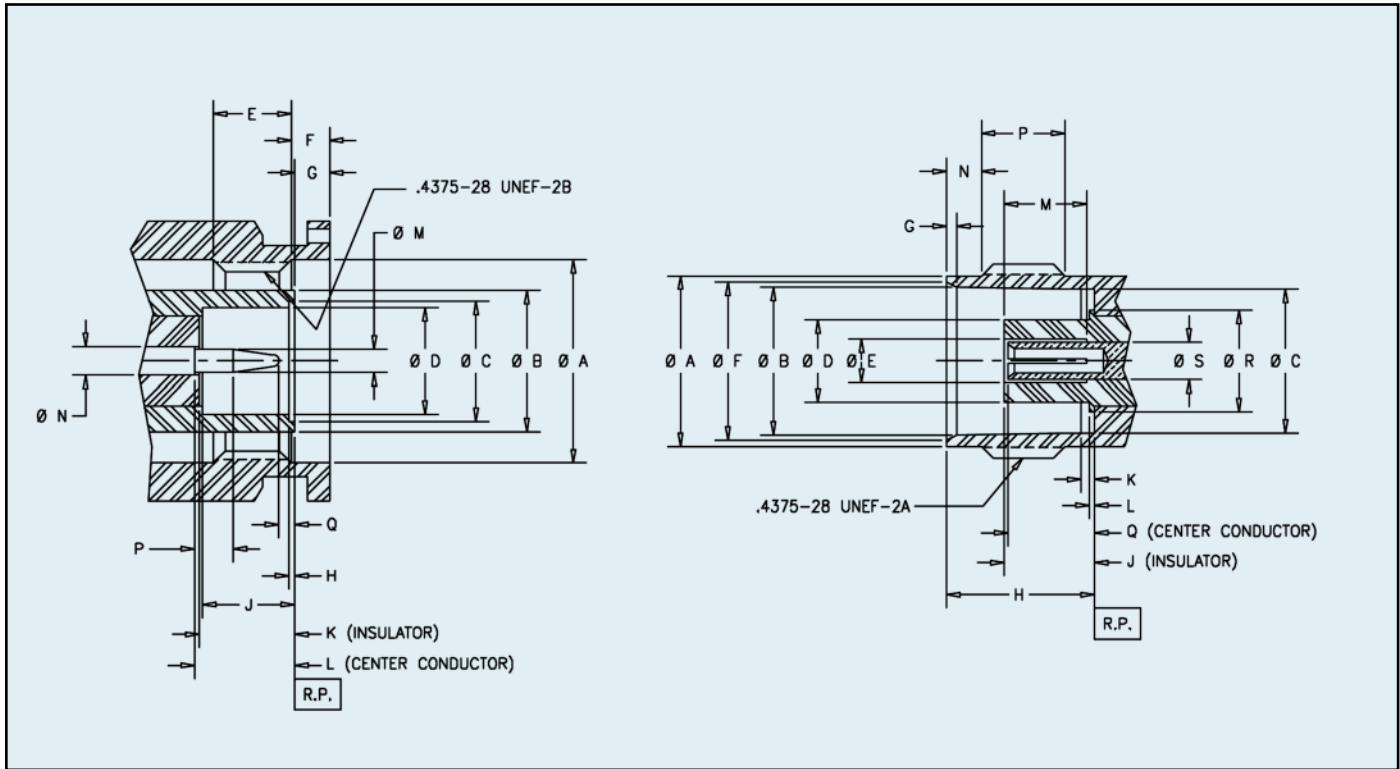
# TNC Series



TNC Series

# TNC Interface Mating Dimensions (Per MIL-STD-348)

TNC Interface Dimensions



## MALE

## FEMALE

LTR	Inches/Millimeters <sup>3</sup>					
	Minimum		Nominal		Maximum	
	in.	mm	in.	mm	in.	mm
ØA	.440	11.17	—	—	—	—
ØB	.314	7.98	.315	8.00	.318	8.08
ØC	.266	6.76	.267	6.78	.268	6.81
ØD	.238	6.05	.240	6.10	.242	6.15
E	.156	3.96	—	—	—	—
F	.063	1.60	—	—	—	—
ØG	—	—	—	—	.078	1.02
ØH	.006	0.15	.008	0.19	.009	0.23
ØJ	.208	5.28	—	—	.212	5.39
K	.208	5.28	.213	5.41	.218	5.54
L	.208	5.28	.214	5.44	.219	5.56
ØM	.052	1.32	.053	1.35	.054	1.37
ØN	.064	1.63	.065	1.65	.066	1.68
P	.078	1.98	—	—	—	—
Q	.003	0.08	.040	1.02	.080	2.03

LTR	Inches/Millimeters <sup>3</sup>					
	Minimum		Nominal		Maximum	
	in.	mm	in.	mm	in.	mm
ØA	.378	9.60	.380	9.65	.381	9.68
ØB	.327	8.31	.330	8.38	.333	8.46
ØC	.319	8.10	.320	8.13	.321	8.15
ØD	.182	.462	.184	4.67	.186	4.72
ØE	—	—	—	—	.092	2.34
ØF	.346	8.79	.351	8.92	.356	9.04
G	.015	0.38	.023	0.58	.030	.076
H	.327	8.31	—	—	.335	8.51
J	.198	5.03	.202	5.13	.208	5.28
K	.026	0.66	.031	0.79	.036	0.91
L	—	—	—	—	.006	0.15
M	.180	4.67	.185	4.70	.190	4.72
N	.068	1.73	.078	1.98	.088	2.24
P	.187	4.75	—	—	—	—
Q	.198	5.03	.202	5.13	.208	5.28
ØR	—	—	—	—	.266	6.76
ØS	.083	2.11	.084	2.13	.086	2.18

### Notes:

1. I.D. to meet VSWR and contact resistance when mated with .053 +/- .001 inches (1.3462 +/- .0254 millimeters) diameter pin.
2. When fully engaged, the two reference planes must coincide with metal-to-metal contact.
3. Metric equivalents (to the nearest 0.01mm) are given for general information only and are based on 1 inch = 25.4 millimeters.

# TNC Connectors Semi-Rigid Cable Connectors

The specifications below are general specifications for TNCA connectors. Specific data is available from the factory upon request. The General, Electrical, Mechanical and Environmental Specifications in the following table are recommended for any procurement documents or drawings.

In the event of any conflict between requirements of the text specifications, General Specification MIL-PRF-39012 and the special details of this table, the latter shall govern. These specifications are subject to change according to the latest revision of Specification MIL-PRF-39012.

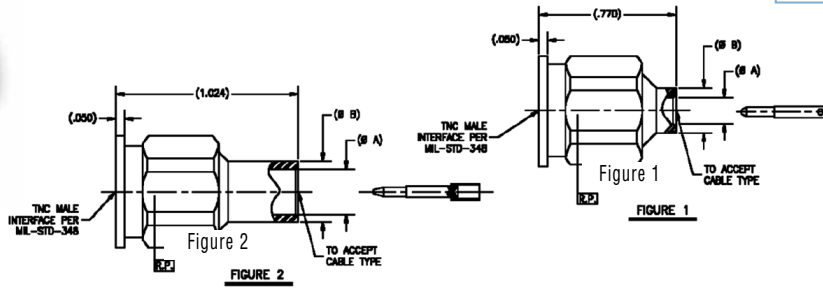
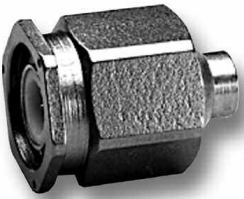
Requirement	Specifications
<b>General</b>	
Material	Steel corrosion resistant per ASTM A-582, 300 Series, ASTM A-743, ASTM A-744 Brass Alloy per ASTM B-16 Beryllium copper per ASTM B-196 or B-197 PTFE Fluorocarbon per ASTM D-1457 Silicone Rubber per MIL-R-5847 and ZZ-R-765.
Finish	Center contacts shall be gold plated to a minimum thickness of .00005-inch in accordance with ASTM B-488, Type 3, Code C over nickel underplate. All other metal parts shall be finished so as to provide a connector which meets the corrosion requirements of this table.
Design	The design shall be such that the outline dimensions in this catalog are met. In addition, the assembled connector shall meet the interface dimensions. Dimensions are reference only unless stated.
<b>Electrical</b>	
Insulation Resistance	The insulation resistance shall not be less than 5,000 megohms.
Dielectric Withstanding Voltage	Refer to applicable military slash sheet or consult factory.
RF High Potential Withstanding Voltage	Refer to applicable military slash sheet or consult factory.
Contact Resistance	Refer to applicable military slash sheet or consult factory.
Voltage Standing Wave Ratio (VSWR)	Refer to applicable military slash sheet or consult factory.
RF Leakage	Refer to applicable military slash sheet or consult factory.
Insertion Loss	Refer to applicable military slash sheet or consult factory.
Corona Level	Refer to applicable military slash sheet or consult factory.
<b>Mechanical</b>	
Force to Engage and Disengage	The torque required to engage and disengage shall not exceed 2 inch-pounds. The longitudinal force is not applicable.
Coupling Nut Retention Force	100 lbs. minimum. Applicable to male connectors only.
Coupling Proof Torque	15 in.-lbs. minimum. Applicable to male connectors only.
Cable Retention Force	Refer to applicable military slash sheet or consult factory.
Mating Characteristics	See interface dimensions shown. Applicable to females only: oversize pin .0550 +.0001/-.0000 diameter .125 deep; Insertion force 2 lbs. maximum with .054 minimum diameter pin; withdrawal force 2 oz. minimum with .052 maximum diameter pin.
Connector Durability	The connector to be tested and its mating connector shall be subjected to 500 insertion and withdrawal cycles at 12 cycles per minute max. The connector shall show no evidence of mechanical failure and the connector shall meet the mating characteristic requirements.
Recommended Mating Torque	12-15 inch-pounds.
<b>Environmental</b>	
Vibration	Specification MIL-STD-202, Method 204, Test Condition B.
Shock	Specification MIL-STD-202, Method 213, Test Condition I.
Thermal Shock	Refer to applicable military slash sheet or consult factory.
Corrosion (Salt Spray)	Specification MIL-STD-202, Method 101, Test Condition B. The salt solution shall be five percent
Moisture Resistance	Specification MIL-STD-202, Method 106. No measurement at high humidity. Insulation resistance shall be 200 megohms min. within 5 minutes after removal from humidity.

Complete specifications on every connector in this catalog are available from the factory.

# TNC Connectors

## 9009

### Straight male cable



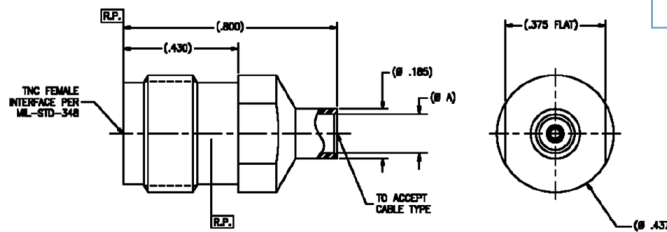
Tensolite Part Number	"A"	Semi-Rigid Cable Type
9009-1SF	.143 min.	.141
9009-2SF	.088 min.	.085
9009-3SF	.143 min.	.141*

\*Microporous  
Standard units have stainless steel finish.  
The cable adapter section is gold plated for solderability.

TNC Connectors

## 9010

### Straight cable female

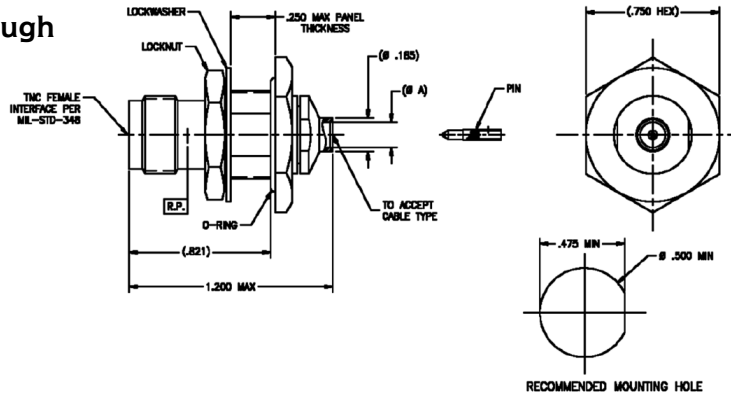


Tensolite Part Number	"A"	Semi-Rigid Cable Type
9010-1	.143 min.	.141
9010-2	.088 min.	.085
9010-3	.143 min.	.141*

\*Microporous  
Standard units are gold plated.

## 9011

### Bulkhead feedthrough cable female

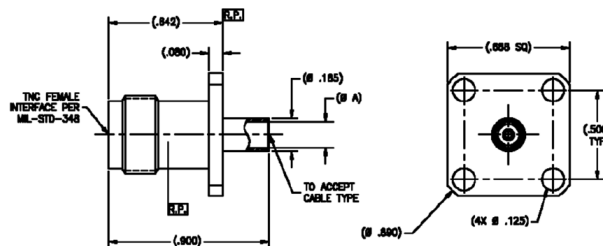


Tensolite Part Number	"A"	Semi-Rigid Cable Type
9011-1SF	.143 min.	.141
9011-2SF	.088 min.	.085
9011-3SF	.143 min.	.141*

\*Microporous  
Standard units have stainless steel finish.  
The cable adapter section is gold plated for solderability.

## 9012

### Flange mount cable female



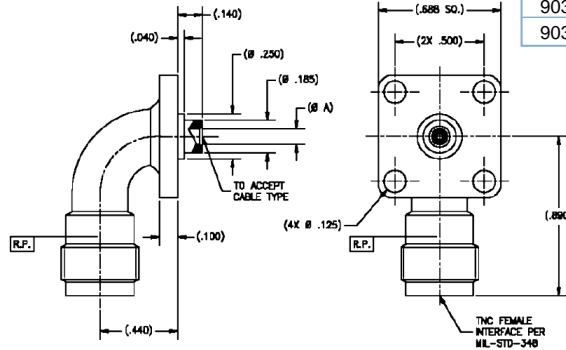
Tensolite Part Number	"A"	Semi-Rigid Cable Type
9012-1	.143 min.	.141
9012-2	.088 min.	.085
9012-3	.143 min.	.141*

\*Microporous  
Standard units are gold plated.

# TNC Connectors

## 9031

Radius right angle  
flange mount cable  
female (.141 Semi-Rigid)

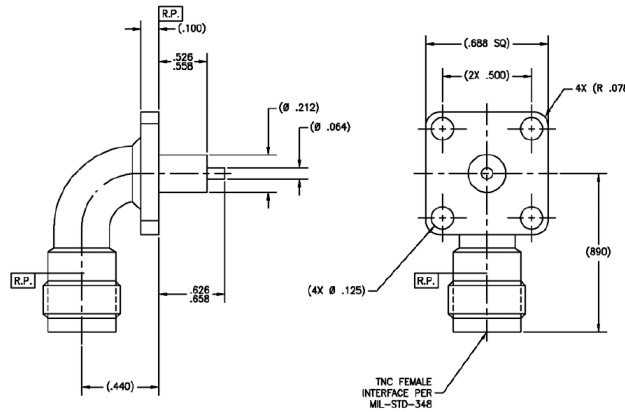


Tensolite Part Number	"A"	Semi-Rigid Cable Type	Max. VSWR DC - 18.0 GHz
9031-1CC	.143 min.	.141	1.07 + .01 fGHz
9031-2CC	.088 min.	.085	1.07 + .01 fGHz
9031-3CC	.143 min.	.141*	1.07 + .01 fGHz

\*Microporous  
.185 and "A" diameters will be gold plated on SF units for solderability.  
Center conductor is captivated.  
Standard units are gold plated. Add suffix SF to Part No. for stainless steel finish.

## 9030SF

Radius right angle  
flange mount female

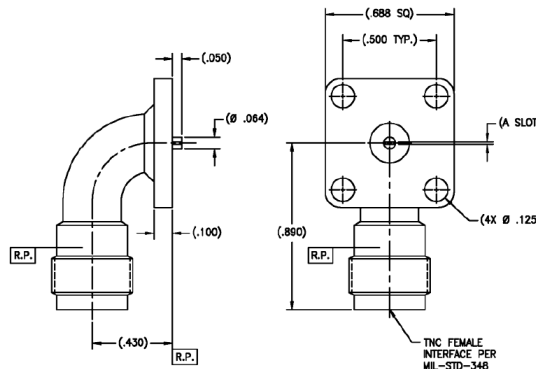
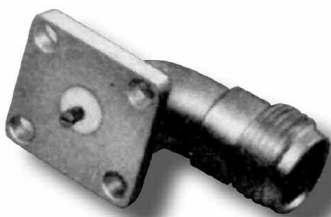


Tensolite Part Number	Max. VSWR DC - 18.0 GHz
9030SF	1.07 + .01 fGHz

Add suffix CC to Part No. for captivated contact.  
Standard units have stainless steel finish.

## 9032

Radius right angle  
flange mount female

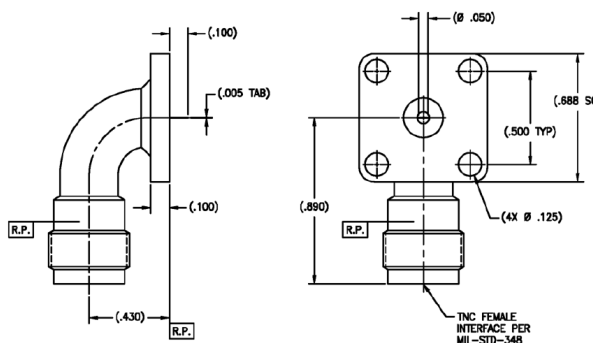
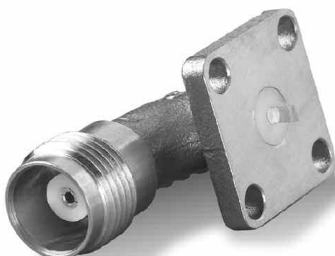


Tensolite Part Number	"A" +.003/-0.01	Slot Position	Max. VSWR DC - 18.0 GHz
9032-1SF	.02	Horizontal	1.07 + .01 fGHz
9032-2SF	.018	Horizontal	1.07 + .01 fGHz
9032-3SF	.028	Horizontal	1.07 + .01 fGHz
9033-1SF	.02	Vertical	1.07 + .01 fGHz
9033-2SF	.018	Vertical	1.07 + .01 fGHz
9033-3SF	.028	Vertical	1.07 + .01 fGHz
9033-4SF	.036	Vertical	1.07 + .01 fGHz

Add suffix CC to Part No. for captivated contact.  
Standard units have stainless steel finish.

## 9034

Radius right angle  
flange mount female



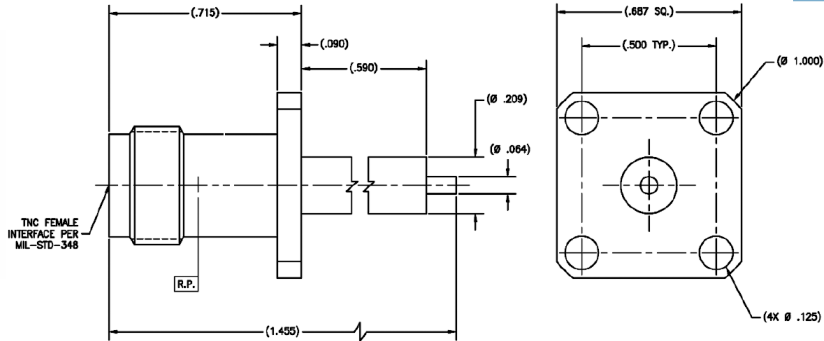
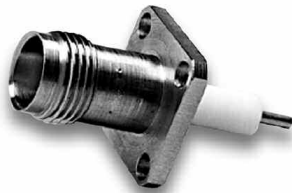
Tensolite Part Number	"A"	Semi-Rigid Cable Type
9012-1	.143 min.	.141
9012-2	.088 min.	.085
9012-3	.143 min.	.141*

\*Microporous  
Standard units are gold plated.  
Add suffix CC to Part No. for captivated contact.

# TNC Connectors

## 9028

Straight termination panel mount female

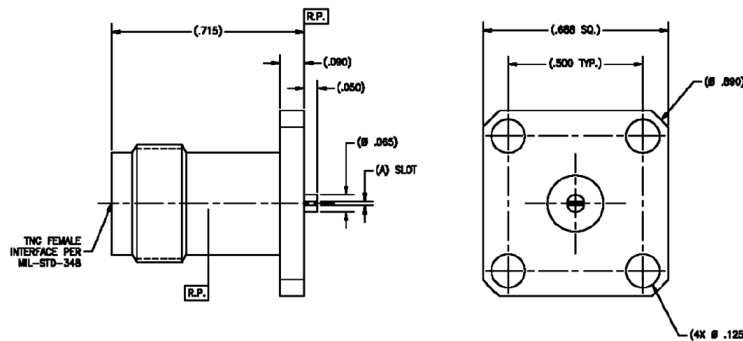


Tensolite Part Number	Max. VSWR DC - 18.0 GHz
9028CCSF	1.25:1

Center conductor is captivated.  
Standard finish is passivated.

## 9045

Slot termination flange mount female

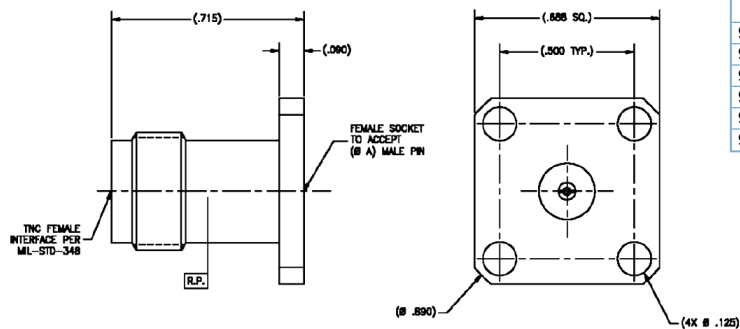


Tensolite Part Number	Max. VSWR DC - 18.0 GHz 1.25:1 "A" Slot, +.003/-0.01
9045-1CCSF	.012
9045-2CCSF	.018
9045-3CCSF	.028
9045-4CCSF	.038

Center conductor is captivated.  
Standard finish is passivated.

## 9080

Female contact termination panel mount female

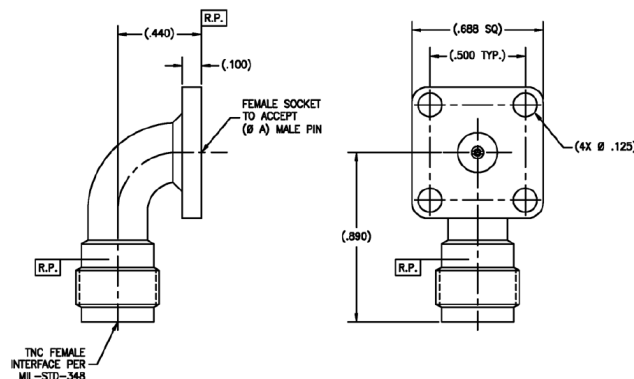
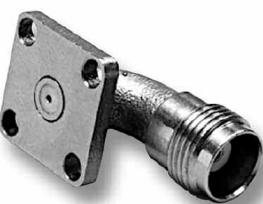


Tensolite Part Number	Max. VSWR DC - 18.0 GHz 1.25:1 "A" Dia. $\pm .0005$
9080-1CCSF	.036
9080-2CCSF	.020
9080-3CCSF	.010
9080-4CCSF	.012
9080-5CCSF	.015
9080-6CCSF	.018

Center conductor is captivated.  
Standard finish is passivated.

## 9042

Radius right angle flange mount female



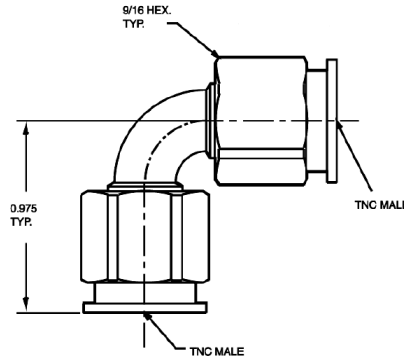
Tensolite Part Number	Max. VSWR DC - 18.0 GHz 1.25:1 "A" Dia. $\pm .0005$
9042-1CCSF	.036
9042-2CCSF	.020
9042-3CCSF	.010
9042-4CCSF	.012
9042-5CCSF	.015
9042-6CCSF	.018

Center conductor is captivated.  
Standard finish is passivated.

# TNC Connectors In-Series Adapters

## 9052CCSF

Radius right angle  
male to male adapter

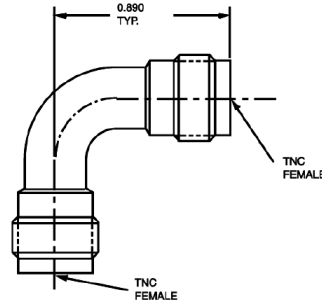


Tensolite Part Number	Max. VSWR DC - 18.0 GHz
9052CCSF	1.08 + .009 fGHz

Center conductor is captivated.  
Standard finish is passivated.

## 9051CCSF

Radius right angle  
female to female adapter

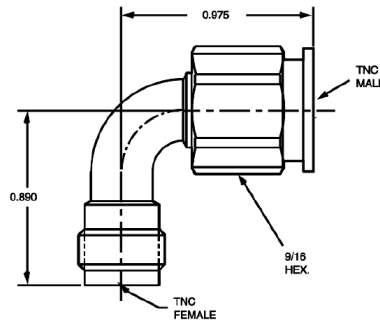


Tensolite Part Number	Max. VSWR DC - 18.0 GHz
9051CCSF	1.08 + .009 fGHz

Center conductor is captivated.  
Standard finish is passivated.

## 9050CCSF

Radius right angle  
female to male adapter



Tensolite Part Number	Max. VSWR DC - 18.0 GHz
9050CCSF	1.08 + .009 fGHz

Center conductor is captivated.  
Standard finish is passivated.

