

Metrology-Grade Type N, BNC, TNC, C and SC Precision Connector Gage Kit

A025A



*A025A Metrology-Grade
Type N, BNC, TNC, C and SC
Precision Connector Gage Kit*

Description

The model A025A is a high precision "metrology grade" connector gage kit designed to measure the contact pin location of precision Type N, BNC, TNC, C and SC male and female connectors for compliance to MIL-C-39012 (Standard Test Connectors), MIL-T-81490 (Type 1, 2 & 3) and maury precision connectors.

This gage kit provides a convenient and accurate means for checking precision connectors for compliance to specifications. The gage is basically a comparator that is calibrated to a nominal setting by means of a master gage. When engaged to the connector under test, the actual deviation from nominal is read directly on the dial face.

This connector gage can measure Type N, BNC/TNC and C/SC connectors to other interface specifications by employing master gages with different setting dimensions (see **Figure 1**).

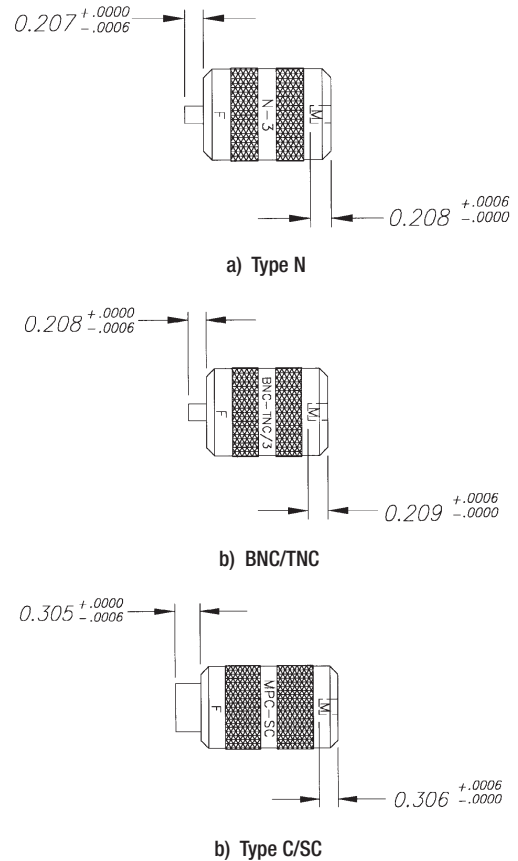


Figure 1. Master Gages Supplied with Kit

Table 1.

Model	Gage Assemblies	Dial Resolution (Inches)	Applications
A025A	1 Push-On Dial Indicator Style	0.00025	Measures contact pin location of type N, BNC, TNC, C & SC male and female connectors.

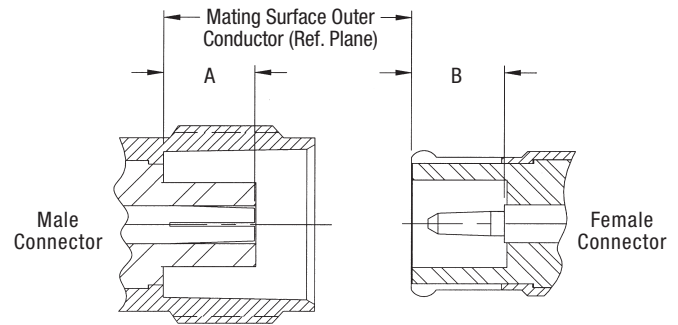
Specifications

The accuracy of the measurement is primarily dependent on the accuracy of the Master Setting Gauge utilized. **Figure 1** shows the Master Setting Gages included with this kit.

Table 2 shows overall performance standards based on factory measurements traceable to the U.S.A. National Institute of Standards and Technology (NIST).

Table 2. A025A Connector Gage Specifications

CHARACTERISTICS	LIMITS (In.)	COMMENTS
Gage Resolution	0.00005	One fifth of an increment
Gage Calibration Accuracy	0.00004	—
Gage Repeatability	0.00013	One half of an increment
Master Accuracy	0.0006	—
Total Uncertainty		
RSS	0.00082	Resolution + Repeatability + Gage & Master accuracy limits.
Worst Case	0.00062	Root sum of the squares.



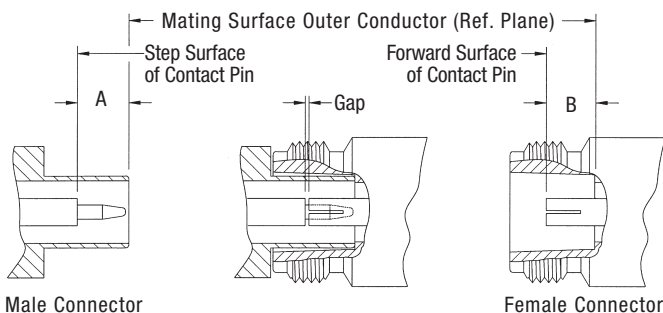
Item	Specification	A		B		Center Conductor Gap		
		Min	Nom	Min	Nom	Max	Min	Nom
A	MIL-C-39012 Standard Test	0.208	+0.000 -0.003	0.209	+0.003 -0.000	0.001	0.001	0.007
B	MIL-T-81490 Type 1*							
C	MPC/TNC ES-2047*	0.208	+0.000 -0.005	0.209	+0.005 -0.000	0.000	0.000	0.011

* Applies to TNC only.

Figure 3. Precision Type BNC and TNC Contact Pin Location Dimensions

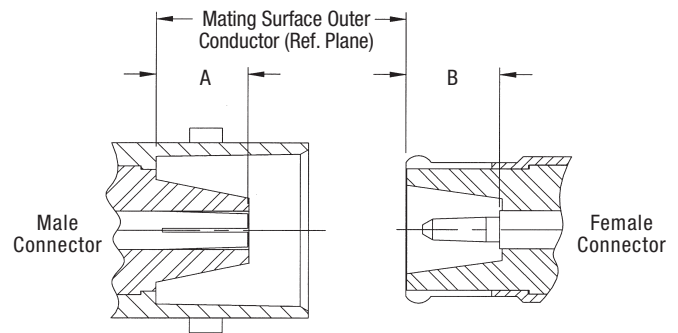
Contact Pin Dimensions (Inches)

Figures 2, 3 and **4** show the various connectors and contact pin locations that can be measured with the A025A Connector Gage Kit.



Item	Specification	A		B		Center Conductor Gap		
		Min	Nom	Min	Nom	Max	Min	Nom
A	MIL-C-39012 Standard Test	0.208	+0.003 -0.000	0.207	+0.000 -0.003	0.001	0.001	0.007
B	MIL-T-81490 Type 3							
C	Precision Type N	0.207	+0.003 -0.000	0.207	+0.000 -0.003	0.000	0.000	0.006

Figure 2. Type N Contact Pin Location Dimensions



Item	Specification	A		B		Center Conductor Gap		
		Min	Nom	Min	Nom	Max	Min	Nom
A	MIL-C-39012 Standard Test	0.305	+0.000 -0.008	0.307	+0.004 -0.000	0.002	0.002	0.014
B	MIL-T-81490 Type 2*	0.305	+0.000 -0.004	0.306	+0.004 -0.000	0.001	0.001	0.009
C	MPC/SC 5E-050	0.305	+0.005 -0.000	0.306	+0.005 -0.000	0.001	0.001	0.011

* Applies to SC only

Figure 4. Precision Type C and SC Contact Pin Location Dimensions