PRECISION CONNECTOR GAGE KIT

SMP CONNECTORS

A042A

Features

- Checks Female Interface
- Checks Multiple Male Configurations
- Long Lasting Durability
- Accurate and Easy to Use

Description

The Maury A042A precision connector gage is designed to measure the interface dimensions of SMP connectors. It provides a fast and accurate means to check the center contact and dielectric locations required for female SMP connectors and the center contact location required for the male SMP connector.

The gage kit consists of three gage assemblies, two for measuring the female connector pin and dielectric and one for measuring the male pin and a master gage. In addition, the A042A gage kit is provided with a full set of test pins needed for measuring the four commonly used male SMP connectors (full detent, limited detent, smooth bore, and catchers mitt). The test pins make it easier to distinguish between the four connector types and also are provided with holes in their handles to hold jack to jack adapters, making them easier to gage. The four male connector designations refer to four types of outer conductor mating configurations used on male SMP connectors (see **Figure 1** on page 2).

The gauging parts are made of stainless steel for long lasting durability and superior stability. The A042A has an accuracy of .00057 inch and a dial resolution of .0001 inch (see **Table 1** below). The gauges are contained in an attractive foam lined wooden instrument case.

Gage Assemblies		Limits (inches)	Comments
Gage resolution		0.0001	Fifth of an increment
Gage calibration accuracy		0.00004	——
Gage repeatability		0.00025	Half of an increment
Master accuracy		0.0005	——
Total uncertainty	Worst case	0.00089	Add resolution, repeatability, gage and master accuracy limits.
	RSS	0.00057	Root sum of the squares

Table 1: Connector Gage Specifications

Table

The specifications listed in the above table are the performance standards based on factory measurements traceable to the U. S. A. National Institute of Standards and Technology (NIST).

To verify that your gage kit is performing to traceable specifications, periodically send the kit to Maury for calibration. The recommended calibration cycle is one year. The actual need may vary depending on usage.

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Dimensions

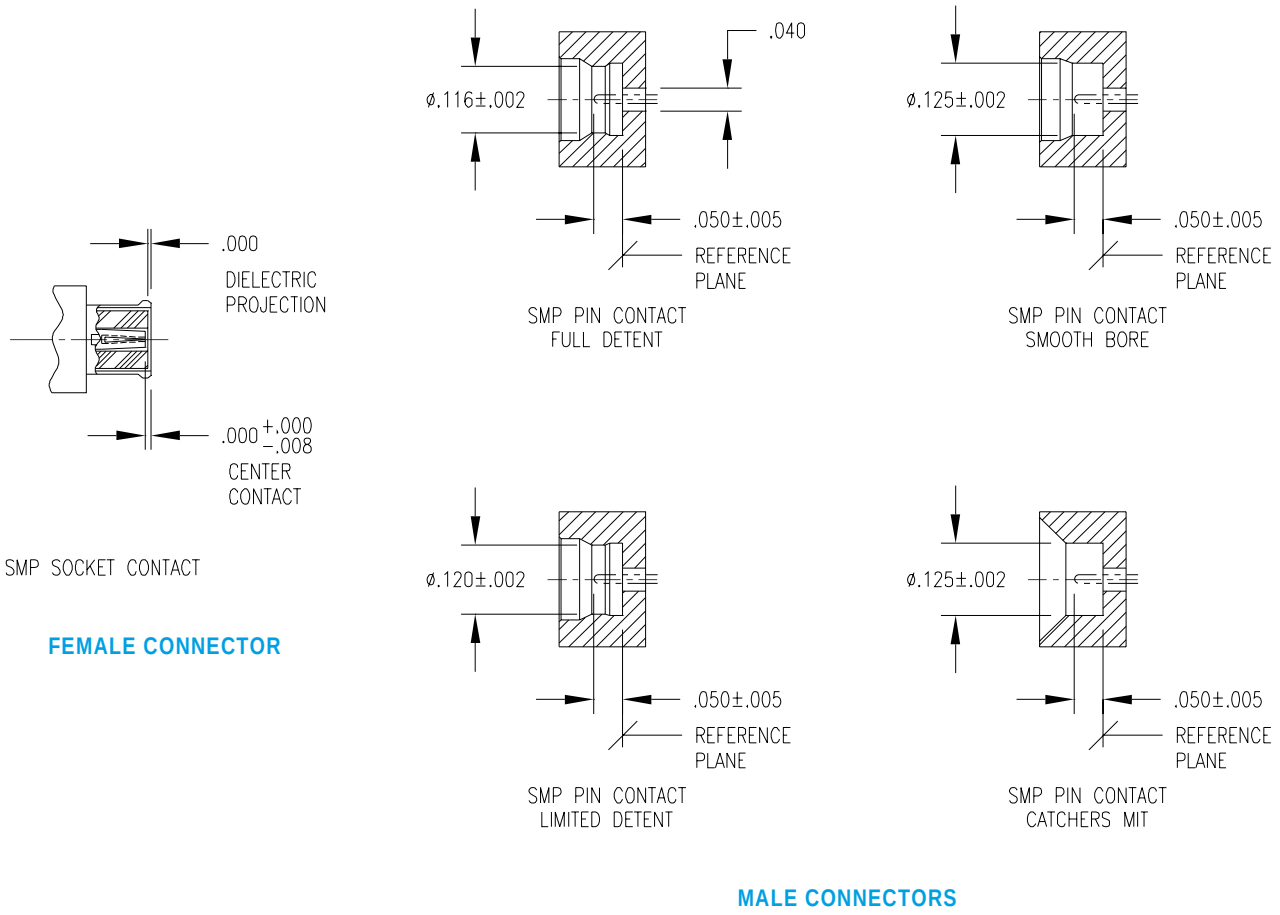

Figure 1: SMP Female and Male Connector Configurations

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Figure 2 shows the complete kit including the A0425A5 and A042A6 test pins used to identify the four commonly used SMP connectors (full detent, limited detent, smooth bore and catchers mitt). These four connectors are very similar in their appearance. Using the test pins, the proper connector can readily be identified. This prevents accidental mating with one of the captivating connectors (full detent or limited detent) which are very difficult to disconnect after mating.

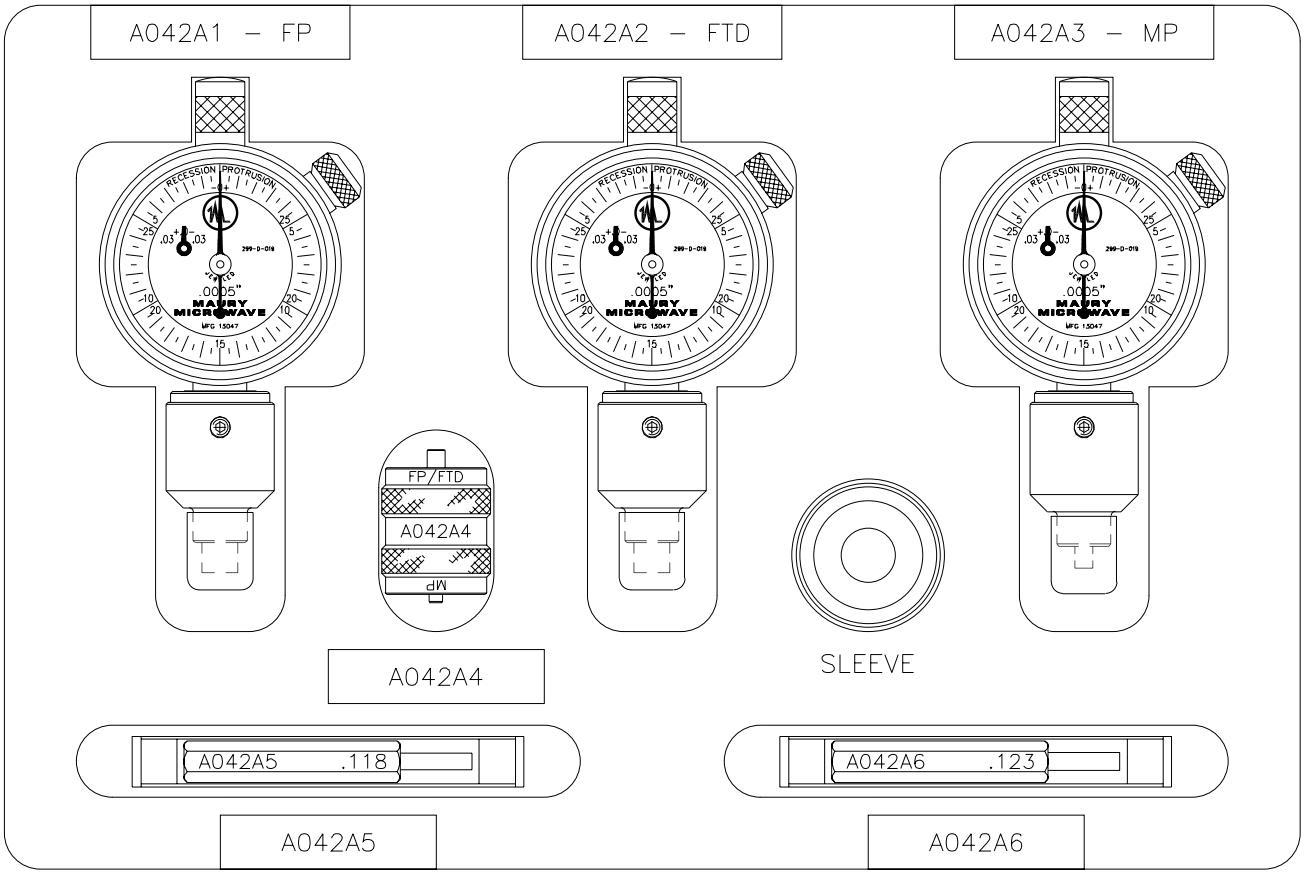

Figure 2: A042A Gage Kit

Summary

The Maury A042A connector gage kit provides a fast and accurate means to check the center contact and dielectric locations of SMP/GPO™ connectors. Poor electrical performance or damage can result if any of these parameters are out of tolerance. In addition, a set of GO NO-GO pins are included to readily identify the four commonly used connectors (full detent, limited detent, smooth bore and catchers mitt). This kit is a must for anyone working with SMP connectors.

Note: GPO™ is a trademark of the Gilbert Engineering Company, Inc.