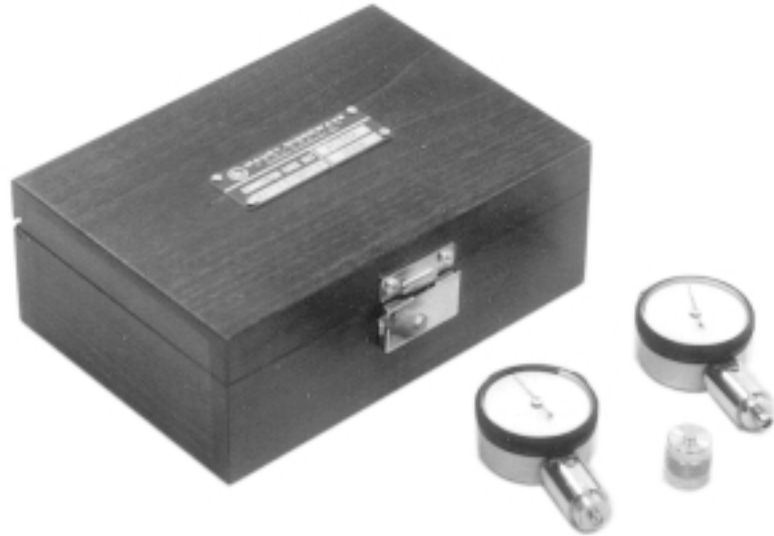


PRECISION CONNECTOR GAGE KIT

APC3.5 and MPC3

Features

- Direct Reading
- Self Checking
- Accurate
- Easy To Use



Description

The Maury A034B and A034C are designed to provide a fast and accurate means of checking the critical center conductor contact pin locations of 3.5mm (APC3.5) and 2.92mm (K) connectors relative to the outer conductor mating plane. The critical interface dimensions are shown in [Figure 1](#).

Both models consist of two gage assemblies, one each for the female and male connectors, and a master gage. All components are housed in a foam-lined, wooden instrument case. The gage assemblies

are dial indicators which when zero-set by means of the master gage will indicate the actual deviation of the center contact from the outer conductor mating plane. The A034B has an accuracy of better than ± 0.00025 inch and a dial resolution of the same amount. For the more critical applications, the A034C provides $+0.0001$ inch accuracy and resolution. All gaging parts and the master gage are fabricated from stainless steel for durability and excellent dimensional stability.

Model	Gage Assemblies	Dial Graduations	Description
A034B	2	0.00025	Measures contact pin location of 3.5mm and 2.92mm female and male precision connectors.
A034C	2	0.00010	Measures contact pin location of 3.5mm and 2.92mm female and male precision connectors for more precise measurement applications.



Application

The critical contact pin locations of 3.5mm and 2.92mm female and male precision connectors are shown in Figure 1. These dimensions must be maintained in order to provide proper electrical performance and mechanical mating of the connectors. The connectors are designed to achieve a co-planar mating of the center conductors and outer conductors at the outer mating plane. Destructive interference will result if the contacts protrude beyond the outer conductor mating planes. This interference may cause buckling of the female contact fingers or damage to associated equipment during mating. Alternately, an excessive gap of the

mated center contacts produces high reflections and reduces peak power handling capability. These precision connectors should be gaged routinely to ensure compliance to applicable specifications, to prevent destructive mating, and to ensure proper electrical performance. Additionally, connectors on all equipment should be gaged periodically to detect out of tolerance conditions which may impair electrical performance or cause damage to mating connectors. The A034B and C are very useful in a variety of applications such as: production checkout, incoming inspection, quality control and laboratory measurements.

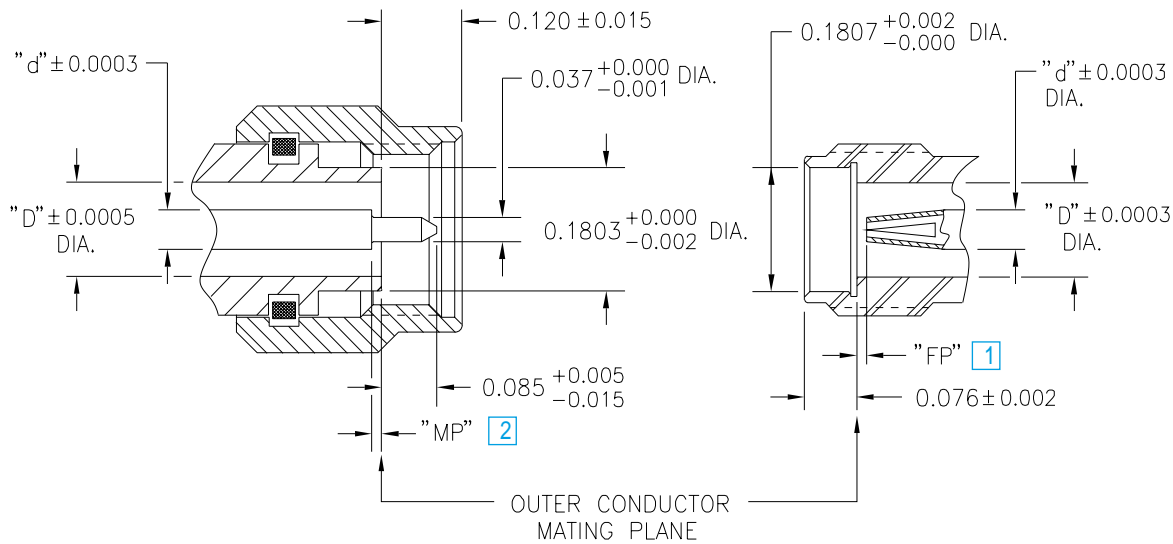


Figure 1 — Critical contact pin location dimensions of APC3.5 and MPC3 type precision connectors

Connector Type	d	D	"FP" [3]	"MP" [3]	Comment
APC3.5	0.0598	0.1378	0.000 +0.003/-0.000	0.000 +0.003/-0.000	Rated to 34 GHz
MPC3	0.0500	0.1150	0.000 +0.003/-0.000	0.000 +0.003/-0.000	Rated to 40 GHz

- [1] Female contact pin location -- use gage assembly marked "F".
- [2] Male contact pin location -- use gage assembly marked "M".
- [3] Tighter tolerances can be used at user's discretion.

NOTE: Minus (-) tolerances indicate a recessed condition from the outer conductor mating plane. Plus (+) tolerances indicate a protruding condition above the outer conductor mating plane. Other dimensions shown in these figures are shown since they affect the mating of the gage assembly's gaging mechanisms (bushing and pin). Deviation from these dimensions may cause measurement errors or improper fit between the gaging mechanisms and the connectors being measured. Consult our Customer Service department on measuring connectors with interface dimensions other than specified above.