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# **EIA STANDARD**

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**TP-07B**

**Contact Axial Concentricity Test  
Procedure for Electrical Connectors**

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**EIA-364-07B**

(Revision of EIA-364-07A)

MAY 1998

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**ELECTRONIC INDUSTRIES ALLIANCE**

**ENGINEERING DEPARTMENT**



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TEST PROCEDURE No. 07B  
CONTACT AXIAL CONCENTRICITY TEST PROCEDURE  
FOR  
ELECTRICAL CONNECTORS

(From EIA Standards Proposal No. 4032, formulated under the cognizance EIA CE-2.0 Committee on National Connector Standards.)

## 1 Introduction

### 1.1 Scope

This standard establishes a test method to determine the straightness of contacts by measuring a total indicator reading (TIR) value. Axial concentricity can be measured after crimping to determine axial deformation.

## 2 Test resources

### 2.1 Equipment

#### 2.1.1 Ground precision chuck

2.1.2 Dial gauge indicator, 0.013 millimeter (0.0005 inch) increments with a 2.4 millimeter (0.09 inch) diameter tip, spring loaded.

2.1.3 Stand (for holding chuck and indicator in proper position).

2.1.4 An equivalent optical gauge may be substituted for the dial indicator.

### 2.2 Calibration

“Run out” of the chuck shall be less than 0.013 millimeter (0.0005 inch) when measured on a steel gauge pin (approximately 1.6 millimeter (0.06 inch) diameter) 13 millimeter (0.5 inch) away from the chuck face.

### **3 Test specimen**

#### 3.1 Description

A test specimen shall consist of a contact and conductor crimped together with the specified tool. Contacts should be checked initially to determine conformance to the applicable drawings.

### **4 Test procedure**

4.1 Chuck the contact in the area shown in figure 1.

4.2 Position the dial indicator to the measurement points shown in figure 1.

4.3 Turn the chuck through 360 degrees and record the difference between the maximum and minimum value on each measurement point; this is the TIR.

### **5 Details to be specified**

The following detail shall be specified in the referencing document:

5.1 Wire type and size and crimping tool to be used

5.2 Maximum allowable deformation (TIR)

### **6 Test documentation**

Documentation shall contain the details specified in clause 5, with any exceptions, and the following:

6.1 Title of test

6.2 Sample description, including fixturing

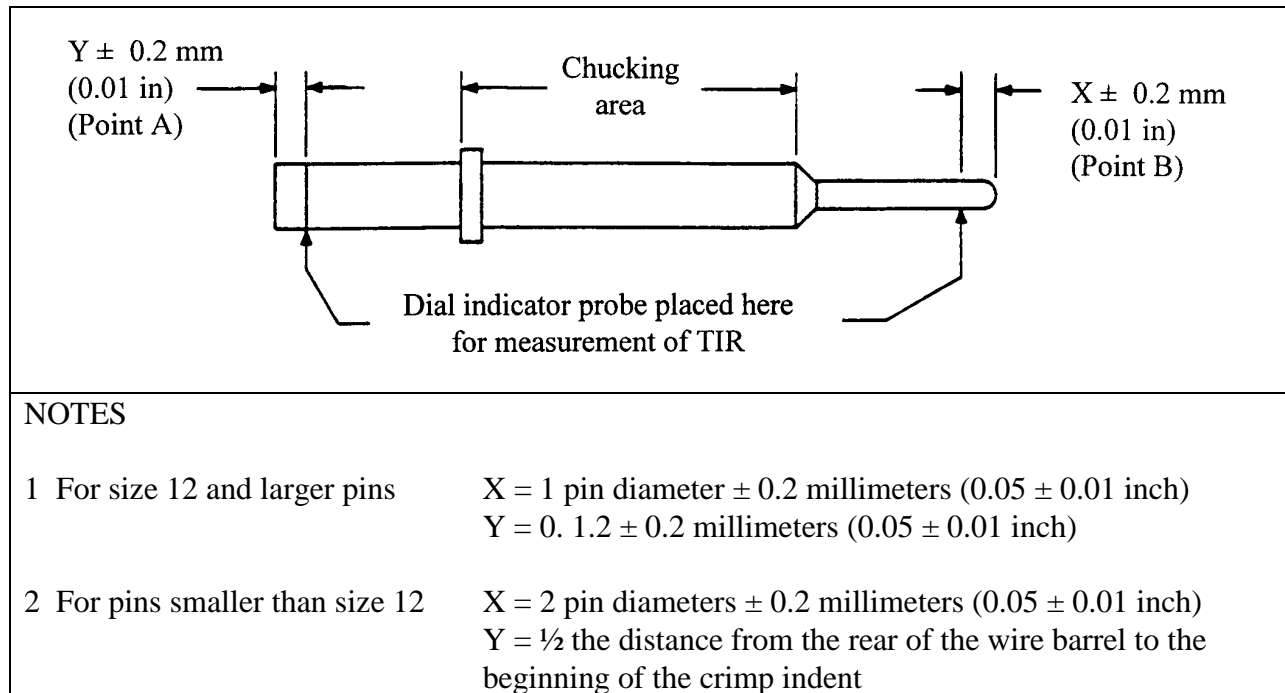
6.3 Test equipment used, and date of last and next calibration

6.4 Test procedure

6.5 Values and observations

6.6 Name of operator and date of test





**Figure 1 - Typical axial concentricity (TIR) measurement**





