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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 18290.4-2015**

Replacing GB/T 18290.4-2000

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**Solderless connections -- Part 4: Solderless non-accessible  
insulation displacement connections -- General requirements,  
test methods and practical guidance**

无焊连接 第4部分：不可接触无焊绝缘位移连接 一般要求、试验方法和使用导则  
**(English Translation)**

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### Foreword

GB/T 18290 "solderless connection" consists of the following components.

- Part 1. solderless connection about connections - General requirements, test methods and practical guidance;
- Part 2. solderless connection crimped connections - General requirements, test methods and practical guidance;
- Part 3. solderless connector solderless accessible insulation displacement connections - General requirements, test methods and guidelines;
- Part 4. solderless connection untouchable solderless insulation displacement connections - General requirements, test methods and guidelines;
- Part 5. solderless connection push-in connections - General requirements, test methods and guidelines;
- Part 6. solderless connector insulation displacement connections - General requirements, test methods and guidelines;
- Part 7. solderless connection spring clamp connections - General requirements, test methods and guidelines;
- Part 8. solderless connection clamping mount connections - General requirements, test methods and practical guidance.

This section GB/T Part of 418,290.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 18290.4-2000 "Solderless connections - Part 4. Solderless non-accessible insulation displacement connections - General requirements, Test methods and guidelines. " Section compared with the GB/T 18290.4-2000, major changes in the following.

- Description product and its use increases the material's impact on the natural environment in the introduction;
- Delete "industrial atmospheric corrosion" experimental use "Flowing mixed gas corrosion

test" instead (see 12.4.3);

--- Adjusted Table 3. Number of test samples, such as the test sample number "22 (optional)" is replaced by "20 and 2 (optional)" and so on (see 13.1.2);

--- Rearrange use guidelines, and changes in the content, such as increasing the connection ID advantage, refine current carrying capacity, increasing the open and closed shell structure and connection ID as a general multi-pin connector Additional Information section about connection ID, etc. (see para.

Four).

This section uses the translation method is equivalent to using IEC 60352-4:1994 and amendments 1 (2000), "solderless connection Part 4. Not available Contacting solderless insulation displacement connections - General requirements, test methods and practical guidance. " For ease of use, this section made the following editorial changes.

--- Remove the imperial units.

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This section is under the jurisdiction of the National electronic equipment Electromechanical components for Standardization Technical Committee (SAC/TC166).

This part by the Guizhou Space Appliance Co., Ltd., Shenzhen Electronics Co. Alto, responsible for China Electronics Standardization Institute Drafted.

## Introduction

In terms of solderless insulation displacement connection by the GB/T 18290 of the following two parts.

--- Part 3. Solderless accessible insulation displacement connections - General requirements, test methods and guidelines;

--- Part 4. Solderless non - accessible insulation displacement connections - General requirements, test methods and practical guidance.

These include requirements, testing and use of guidance material.

This section provides two test procedures.

--- Basic test schedule. This section applies to meet all the requirements of the second part of the insulation displacement connection, these requirements are based on this even

Successful experience using the access proposed;

--- Comprehensive test schedule. for not fully meet the second part of this part of the insulation displacement connection all the requirements, for example In the second There are no provisions in the manufacture of the materials used or the surface coating.

The principle of using these two test procedures are. taking into account the cost and time for the non-contact established solderless insulation displacement connection Effective performance verification, using the basic test schedule limited; requirements for performance verification in a larger range, the use of extended surface completely Test schedule.

**Note:** In this section, the term "insulation displacement" is abbreviated as "ID", such as "ID connection" "ID terminations."

Figure 1 may contact and non-contact insulation displacement connection example

IEC Guide 109.1995 to promote products to reduce the impact on the natural environment in the product life cycle.

This section allowed the use of some materials may have a negative impact on the environment.

In order to guide technically replace these materials, which will disappear in this section.

Solderless connections - Part 4. Solderless non - accessible insulation Displacement connections - General requirements, test methods and Guidelines for the use the first chapter General

## 1 Scope

This section GB/T 18290 applies to press the third test and measurement connection ID is untouchable, and this even Then it is.

--- Design appropriate ID terminations;

--- Having a solid round conductor (nominal diameter of 0.25mm ~ 3.6mm) wire;

--- Having a stranded conductor (cross-section of 0.05mm<sup>2</sup> ~ 10mm<sup>2</sup>) wire.

This connection is used for communication devices and similar electronic equipment technology.

Further, in order to obtain a stable electrical connection under specified environmental conditions, in addition to the test procedure, this section also provides the industry from making Some experience with the reality of data.

### Objective 2

The purpose of this section is.

--- Determine the applicability of non-contact ID connections under specified mechanical, electrical and atmospheric conditions;

--- When the tool is used to connect the design or process is not the same, there is provided a method comparable test results.

In use ID terminations have different structures and materials. In this regard, only the provisions of the basic parameters of the terminations, as well as require all aspects Details Particular requirements and complete the wire connections.

### 3 Normative References

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2421.1-2008 Environmental testing for electric and electronic products overview and guidance (IEC 6068-1. 1988, IDT) GB/T 4210-2001 Electrotechnical terminology  
Electromechanical components for electronic equipment (idt IEC 60050 (581). 1978) GB/T 5095.1-1997 electronic equipment - Basic testing procedures and measuring methods - Electromechanical components - Part 1. General (idt IEC 60512-1:1994) GB/T 5095.2-1997 electronic equipment - Basic testing procedures and measuring methods - Electromechanical components - Part 2. General examination, electrical Continuity and contact resistance tests, insulation tests and voltage stress test (idt IEC 60512-2. 1985) GB/T 5095.4-1997 electronic equipment - Basic testing procedures and measuring methods - Electromechanical components - Part 4. Dynamic stress test Test (idt IEC 60512-4. 1976) GB/T 5095.5-1997 electronic equipment - Basic testing procedures and measuring methods - Electromechanical components - Part 5. Impact tests (from by the member), static load tests (fixed components), endurance tests and overload tests (idt IEC 60512-5:1992) GB/T 5095.6-1997 Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 6. Climatic tests and