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TIA/EIA STANDARD

Commercial Building Telecommunications Cabling Standard

Part 2: Balanced Twisted Pair Cabling Components

Addendum 4 – Solderless Connection Reliability Requirements for Copper Connecting Hardware

TIA/EIA-568-B.2-4

(Addendum No. 4 to TIA/EIA-568-B.2)

JUNE 2002

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SOLDERLESS CONNECTION RELIABILITY REQUIREMENTS
FOR
COPPER CONNECTING HARDWARE

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FOREWORD

(This foreword is not part of the Standard)

In 2000, the Telecommunications Industry Association (TIA) was developing the TIA/EIA-568-B series of Commercial Building Telecommunications Cabling. As part of this ballot comment resolution process, it was agreed to develop an addendum to TIA/EIA-568-B.2 addressing solderless connection reliability requirements for copper connecting hardware. This project was assigned to TR-42.7 under Engineering Committee TR-42.

It is the intent that the material relating to solderless connection reliability requirements for copper connecting hardware will be published as addendum 4 to ANSI/TIA/EIA-568-B.2.

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This standard has been prepared and approved by the TR-42.7 Subcommittee.

1 INTRODUCTION

This Standard specifies solderless connection reliability requirements for copper connecting hardware used in commercial building telecommunications.

2 PURPOSE AND SCOPE

This Standard specifies reliability requirements for solderless contacts and copper connecting hardware designs that utilize solderless contacts to terminate copper cable insulated conductors.

3 NORMATIVE REFERENCES

IEC 60352-2, *Solderless crimped connections – General requirements, test methods and practical guidance*, 1996

IEC 60352-3, *Solderless accessible insulation displacement connections – General requirements, test methods and practical guidance*, 1995

IEC 60352-4, *Solderless non-accessible insulation displacement connections – General requirements, test methods and practical guidance*, 2000

IEC 60352-5, *Press-in connections – General requirements, test methods and practical guidance*, 2001

IEC 60352-6, *Solderless insulation piercing connections – General requirements, test methods and practical guidance*, 1997

4 DEFINITIONS, ACRONYMS, & ABBREVIATIONS

4.1 Definitions

insulation displacement connection: An electrical connection made by inserting an insulated wire into a metallic slot.

insulation displacement connection, accessible: An ID connection in which it is possible to access test points for carrying out mechanical tests and electrical measurements without deactivation of any design feature intended to establish or maintain the insulation displacement connection.

insulation displacement connection, non-accessible: An ID connection in which it is not possible to access test points for carrying out mechanical tests and electrical measurements without deactivation of any design feature.

insulation displacement contact: See insulation displacement termination.

insulation displacement termination: A contact suitable for making an electrical connection with a insulated conductor.

insulation piercing connection: An electrical connection made by piercing an insulated wire with a metallic element.

4.2 Acronyms and abbreviations

ID	insulation displacement (i.e., ID connection)
IP	insulation piercing (i.e., IP connection)

5 RELIABILITY REQUIREMENTS

5.1 Reliability requirements for solderless connections

To ensure reliable solderless termination of copper cable insulated conductors, and to ensure the reliable solderless connections between component parts within connecting hardware, solderless connections shall meet the applicable requirements of the standards specified in table 1.

Table 1 - Reliability standards for solderless connections

Connection type	Reliability standard
Crimped connection	IEC 60352-2
Accessible IDC	IEC 60352-3
Non-accessible IDC	IEC 60352-4
Press-in connection	IEC 60352-5
IPC	IEC 60352-6

