

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical equipment for measurement, control and laboratory use –
EMC requirements –
Part 1: General requirements**

**Matériel électrique de mesure, de commande et de laboratoire –
Exigences relatives à la CEM –
Partie 1: Exigences générales**



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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	8
3 Terms, definitions and abbreviations	9
3.1 Terms and definitions.....	9
3.2 Abbreviations.....	12
4 General	12
5 EMC test plan.....	12
5.1 General.....	12
5.2 Configuration of EUT during testing	13
5.2.1 General	13
5.2.2 Composition of EUT.....	13
5.2.3 Assembly of EUT.....	13
5.2.4 I/O PORTS	13
5.2.5 AUXILIARY EQUIPMENT	13
5.2.6 Cabling and earthing (grounding).....	13
5.3 Operation conditions of EUT during testing.....	13
5.3.1 Operation modes	13
5.3.2 Environmental conditions.....	14
5.3.3 EUT software during test	14
5.4 Specification of FUNCTIONAL PERFORMANCE	14
5.5 Test description	14
6 Immunity requirements	14
6.1 Conditions during the tests.....	14
6.2 Immunity test requirements	14
6.3 Random aspects	17
6.4 Performance criteria	18
6.4.1 General	18
6.4.2 Performance criterion A	18
6.4.3 Performance criterion B	18
6.4.4 Performance criterion C.....	18
7 Emission requirements	19
7.1 Conditions during measurements.....	19
7.2 Emission limits.....	19
8 Test results and test report.....	19
9 Instructions for use	20
Annex A (normative) Immunity test requirements for PORTABLE TEST AND MEASUREMENT EQUIPMENT powered by battery or from the circuit being measured	21
Annex B (informative) Guide for analysis and assessment for electromagnetic compatibility.....	22
B.1 General.....	22
B.2 Risk analysis.....	22
B.3 Risk assessment.....	22
Bibliography.....	24

Figure 1 – Examples of ports 11

Table 1 – Immunity test requirements for equipment intended to be used in a BASIC ELECTROMAGNETIC ENVIRONMENT 15

Table 2 – Immunity test requirements for equipment intended to be used in an INDUSTRIAL ELECTROMAGNETIC ENVIRONMENT 16

Table 3 – Immunity test requirements for equipment intended to be used in a CONTROLLED ELECTROMAGNETIC ENVIRONMENT 17

Table A.1 – Immunity test requirements for PORTABLE TEST AND MEASUREMENT EQUIPMENT 21

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE – EMC REQUIREMENTS –

Part 1: General requirements

FOREWORD

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International Standard IEC 61326-1 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition, published in 2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- the immunity test levels and performance criteria have been reviewed;
- requirements for portable test and measurement equipment have been clarified and amended;

– the description of the electromagnetic environments has been improved.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
65A/975/FDIS	65A/985/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this document, the following print types are used:

- Terms used throughout this document which have been defined in Clause 3: SMALL CAPITALS

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The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

Instruments and equipment within the scope of this document may often be geographically widespread and hence operate under a wide range of environmental conditions.

The limitation of undesired electromagnetic emissions ensures that no other equipment installed nearby is unduly influenced by the equipment under consideration. The limits are more or less specified by, and therefore taken from, IEC and International Special Committee on Radio Interference (CISPR) publications.

However, the equipment should function without undue degradation in an electromagnetic environment typical for the locations where it is intended to be operated. In this respect, the document specifies three different types of electromagnetic environment and the levels for immunity. More detailed information about issues related to electromagnetic environments are given in IEC TR 61000-2-5. Special risks, involving for example nearby or direct lightning strikes, circuit-breaking, or exceptionally high electromagnetic radiation in close proximity, are not covered.

Complex electric and/or electronic systems should require EMC planning in all phases of their design and installation, taking into consideration the electromagnetic environment, any special requirements, and the severity of failures.

This part of IEC 61326 specifies the EMC requirements that are generally applicable to all equipment within its scope. For certain types of equipment, these requirements will be supplemented or modified by the special requirements of one, or more than one, particular part IEC 61326-2 (all parts). These should be read in conjunction with the IEC 61326-1 requirements.