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## Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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## Template for comments and secretariat observations

|                  |                        |
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| 1  | 2                                          | (3)                          | 4               | 5                                                                                                                                  | (6)                                                                      | 7                                                  |
|----|--------------------------------------------|------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|
| MB | Clause No./ Subclause No./Annex (e.g. 3.1) | Paragraph/ Figure/Table/Note | Type of comment | Comment (justification for change) by the MB                                                                                       | Proposed change by the MB                                                | Secretariat observations on each comment submitted |
|    | 3.1                                        | Definition 1                 | ed              | Definition is ambiguous and needs clarifying.                                                                                      | Amend to read '...so that the mains connector to which no connection...' |                                                    |
|    | 6.4                                        | Paragraph 2                  | te              | The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK. | Delete reference to UV photometer.                                       |                                                    |



# DRAFT International Standard

## ISO/IEC DIS 22121-3

### Information technology — Virtual keyboards user interfaces —

#### Part 3: Virtual keyboards interactions

*Technologies de l'information — Interface utilisateur des claviers  
virtuels —*

*Partie 3: Modes d'interactions des claviers virtuels*

ICS: 35.180

ISO/IEC JTC 1/SC 35

Secretariat: **AFNOR**

Voting begins on:  
**2024-10-24**

Voting terminates on:  
**2025-01-16**

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 22121 series can be found on the ISO website.

## Introduction

While the tactile interface devices are increasing, virtual keyboards are multiplying. But due to their virtual nature, they offer unlimited possibilities to interact through different ways. This generates sometimes some trouble on the user side because from one device to another, and even in the same device, user can be faced with different practices. But it is also a great opportunity for users with disabilities to get an adapted keyboard to their specific needs, and also for standard users in a specific situation to find adapted keyboard that fit well their situation.

A virtual keyboard can be adapted to a specific user (with visual, motor, cognitive, tactile or hearing constraints), a specific technical context (no physical keyboard available, on a large or a tiny tactile device as a phone, or a large one as a kiosk, or on a TV...), and a specific task (editing big documents, or editing occasionally a password) or a specific context of use (in a hurry, walking, driving, switching between several languages...).

This document provides guidelines on the design of specific keyboards dedicated to specific interaction modes.

# Information technology — Virtual keyboards user interfaces —

## Part 3: Virtual keyboards interactions

### 1 Scope

This document gives guidelines on assistive technologies and functionalities that need to be included in accessible virtual keyboards. This document underlines which kind of interaction modes can be embedded, which kinds of Assistive Technologies can be easily bound to virtual keyboards, and which kinds of functionalities have to be taken into account within virtual keyboards.

This document does not apply to physical keyboards that use real physical keys or adaptable keys, which can be customized to user needs, for example with LCD display.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 9995-1, Information technology — Keyboard layouts for text and office systems — Part 1: General principles governing keyboard layouts and the following apply.

For the purposes of this document, the terms and definitions given in ISO/IEC 9995-9, Information technology — Keyboard layouts for text and office systems — Part 9: Multilingual-usage, multiscript keyboard group layouts apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1

##### **on-screen keyboard**

virtual keyboard displayed on any type of screen

Note 1 to entry: On-screen keyboards are one specific type of virtual keyboards, probably the most common, that use a screen to display a visual keyboard.

Note 2 to entry: This type of virtual keyboard can be used on personal computer's screens, on feature phones and tablets, mobile phones and tablets, TVs, kiosks, whiteboards.

#### 3.2

##### **physical keyboard**

mechanical or electronic input device using an arrangement of buttons or keys

Note 1 to entry: Some physical keyboards can be adaptable (for example, using LCD screens instead of keys with printed symbols and characters).