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**Lifts (elevators), escalators and  
moving walks — Programmable  
electronic systems in safety related  
applications —**

**Part 3:  
Life cycle guideline for programmable  
electronic systems related to PESSRAL  
and PESSRAE**

*Ascenseurs, escaliers mécaniques et trottoirs roulants — Conception  
et mise au point des systèmes électroniques programmables dans les  
applications liées à la sécurité —*

*Partie 3: Lignes directrices pour le cycle de vie des systèmes  
électroniques programmables liés à PESSRAL et PESSRAE*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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).

The committee responsible for this document is ISO/TC 178, *Lifts, escalators and moving walks*.

This second edition cancels and replaces the first edition (ISO/TR 22201-3:2013), which has been technically revised.

A list of all parts in the ISO 22201 series can be found on the ISO website.

## Introduction

This document addresses phases in the life cycle planning and actions for post-installation activities (e.g. maintenance, repair, and replacement and modification of interface) of PESSRAL and PESSRAE to help ensure the safety integrity level (SIL) over the life cycle of the system.



# Lifts (elevators), escalators and moving walks — Programmable electronic systems in safety related applications —

## Part 3: Life cycle guideline for programmable electronic systems related to PESSRAL and PESSRAE

### 1 Scope

This document provides additional information and process for the development of the instruction manual required by ISO 22201-1 (PESSRAL) and ISO 22201-2 (PESSRAE) for programmable electronic systems for use by competent maintenance person(s) that carry out maintenance operations.

### 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 22201-1, ISO 22201-2 and the following apply.

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

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

#### 3.1

##### **competent maintenance person**

designated person, suitably trained, qualified by knowledge and practical experience, provided with necessary instructions and supported within their *maintenance organization* (3.4) to enable the required maintenance operations to be safely carried out

Note 1 to entry: The competence of the maintenance person within the *maintenance organization* (3.4) should be continuously updated.

#### 3.2

##### **design equivalent**

original equipment manufacturer, or third party certified product, which fulfils same SIL rated element/subsystem design specifications but has different specifications for the non-SIL rated portion of the PE system

#### 3.3

##### **functional equivalent**

product which fulfils same functional requirements with different SIL rated element/subsystem design specifications from that of the original certified product