ISO 22201-1:2017-02 (E)

Lifts (elevators), escalators and moving walks - Programmable electronic systems in safety-related applications - Part 1: Lifts (elevators) (PESSRAL)

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 2

3 Termsanddefinitions 2

4 Symbols and abbreviated terms 6

5 Requirements 7
5.1 General 7
5.2 Extended application of this document 7
5.2.1 General 7
5.2.2 Risk assessment 7
5.2.3 Limits for specifying SIL for PESSRAL 7
5.2.4 Safe-state requirements 8
5.3 Safety function SIL requirements 8
5.4 SIL-relevant and non-SIL-relevant safe-state requirements 8
5.5 Implementation and demonstration requirements for verification of SIL compliance 20
5.5.1 General 20
5.5.2 Required techniques and measures to implement and demonstrate PE systems compliance with specified safety integrity levels 20
5.5.3 Loss of power after a PESSRAL device has actuated 20

Annex A (normative) Techniques and measures to implement, verify and maintain SIL compliance 21

Annex B (informative) Applicable lift codes, standards and laws 36

Annex C (informative) Example of a risk-reduction decision table 47

Bibliography 48