ISO 7731:2003-11 (E)

Ergonomics - Danger signals for public and work areas - Auditory danger signals

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms, definitions and symbols 1

4 Safety requirements 3
4.1 General 3
4.2 Recognition 3
4.2.1 Introduction 3
4.2.2 Audibility 3
4.2.3 Distinctiveness 3
4.2.4 Unambiguity 3
4.2.5 Moving sources 3
4.3 Review of the signal 4
4.4 Recommended maximum level of the danger signal 4

5 Test methods 4
5.1 Measurement equipment 4
5.2 Objective acoustic measurements 4
5.2.1 General 4
5.2.2 Weighted measurements 4
5.2.3 Measurements made in the frequency domain 4
5.2.4 Measurement of the auditory signal with ambient noise present 5
5.3 Subjective test method 5

6 Design criteria for auditory danger signals 5
6.1 General 5
6.2 Sound-pressure level 5
6.3 Spectral characteristics 6
6.4 Temporal characteristics 6
6.4.1 Temporal distribution of the danger signal 6
6.4.2 Temporal distribution of the frequencies 6
6.4.3 Duration of the danger signals 7
6.5 Information required from suppliers 7

Annex A (normative) Definitions of symbols 8

Annex B (normative) Calculation of effective masked threshold 9

Annex C (normative) Listening test 10

Annex D (informative) Examples of danger signals 11

Bibliography 17