AS 4428.16:2020

Australian STANDARD®

Fire detection, warning, control and intercom systems — Control and indicating equipment

Part 16: Emergency warning control and indicating equipment

STANDARDS Australia

AS 4428.16:2020

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Preface

This Standard was prepared by Standards Australia Committee FP-002, Fire Detection, Warning, Control and Intercom Systems, to supersede AS 4428.16:2015, *Fire detection and alarm systems, Part 16: Emergency warning control and indicating equipment*.

The objective of this Standard is to specify requirements, test methods and performance criteria for emergency warning control and indicating equipment (EWCIE) as the main component of an emergency warning system (EWS).

This Standard (AS 4428.16) is in part based on ISO 7240-16:2007, *Fire detection and alarm systems*, *Part 16: Sound system control and indicating equipment*.

This revision corrects a number of non-technical errors and terminology, and clarifies requirements.

The following technical requirements have been revised:

(a) Relaxed requirements for a single zone Grade 3 EWCIE.

(b) Requirements for the silence warning signals manual control.

(c) Reset operation interlock in manual mode only.

(d) Provision to override All-emergency zone selection.

(e) Ready to talk indication.

The terms “normative” and “informative” have been used in this Standard to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

Contents

Introduction

Emergency warning control and indicating equipment (EWCIE) is the main component of an emergency warning system (EWS). An EWS is the most common system used to provide warning to occupants of fire detected by a fire detection and alarm system. An EWS may be interfaced to other emergency detection systems (EDS), to warn of events such as storms, earthquakes or bomb threats.

All Grades of EWCIE is required to meet general requirements and non-optional functions. Some optional functions (see Appendix F) are mandatory to conform to this Standard for specific Grades of EWCIE as set out in Appendix A. Where an optional function is implemented, all requirements specified shall be met.

Australian Standard®

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Part 16: Emergency warning control and indicating equipment

1 Scope

This Standard specifies requirements, test methods and performance criteria for emergency warning control and indicating equipment (EWCIE) as the main component of an emergency warning system (EWS). This Standard covers three Grades of EWCIE to suit different risks and regulatory requirements. The additional requirements for each Grade are set out in Appendix A.

NOTE 1 The EWS provides information to warn occupants within one, or more, emergency zones, to effect appropriate action in indoor or outdoor environments. This includes the use of loudspeakers to broadcast emergency announcements, alert signals in accordance with ISO 7731, and evacuate signals in accordance with ISO 8201, and may include visual and tactile warning devices.

NOTE 2 Installation requirements, use of emergency warning signals, use of visual and tactile warning device, audibility and intelligibility, are given in AS 1670.1 and AS 1670.4.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents for informative purposes are listed in the Bibliography.

AS 4428.4, *Fire detection, warning, control and intercom systems — Control and indicating equipment, Part 4: Emergency intercom control and indicating equipment*

AS 7240.4, *Fire detection and alarm systems, Part 4: Power supply equipment*

AS 60529, *Degrees of protection provided by enclosures (IP Code)*

AS ISO 7240.1, *Fire detection and alarm systems, Part 1: General and definitions*

AS ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

AS/CA S009, *Installation requirements for customer cabling (Wiring rules)*

AS/NZS 3100, *Approval and test specification — General requirements for electrical equipment*

IEC 60068, *Environmental testing* (series)

IEC 60268-1, *Sound system equipment—Part 1: General*

IEC 60268-4, *Sound system equipment —Part 4: Microphones*

IEC 60721-3-3, *Sound system equipment —Part 3-3: Classification of groups of environmental parameters and their severities—Stationary use at weather protected locations*

IEC 62599-2, *Alarm systems — Part 2: Electromagnetic compatibility — Immunity requirements for components of fire and security alarm systems*

ISO 7731, *Ergonomics — Danger signals for public and work areas — Auditory danger signals*

ISO 8201, *Alarm systems — Audible emergency evacuation signal — Requirements*