AS ISO 9703.1—2002
ISO 9703-1:1992

Australian Standard™

Anaesthesia and respiratory care alarm signals

Part 1: Visual alarm signals

Standards Australia

This Australian Standard was prepared by Committee HE-019, Anaesthetic and breathing equipment. It was approved on behalf of the Council of Standards Australia on 26 June 2002 and published on 28 June 2002.

The following are represented on Committee HE-019:

Australasian Society of Anaesthesia Technicians

Australian Chamber of Commerce and Industry

Australian College of Operating Room Nurses

Australian Industry Group

Australian Society of Anaesthetists

Australian and New Zealand College of Anaesthetists

Australian and New Zealand Intensive Care Society

College of Biomedical Engineering Institution of Engineers Australia

Commonwealth Department of Health and Ageing

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This Standard was issued in draft form for comment as DR 02177.

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First published as AS ISO 9703.1—2002.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4691 8

PREFACE

This Standard has been developed to assist in the process of implementation of the Australian Medical Device legislation.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard, through the Joint Standards Australia/Standards New Zealand Committee HE-019 on Anaesthetic and breathing equipment.

This Standard is identical with and has been reproduced from ISO 9703-1:1992, *Anaesthesia and respiratory care alarm signals — Part 1: Visual alarm signals.*

The objective of this Standard is to specify the characteristics of visual alarm signals for use in anaesthesia and respiratory care.

As this Standard is reproduced from an international Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

INTRODUCTION

This International Standard is the result of discussions held over a period of several years in ISO/TC 121. It addresses only the visual aspects of alarms. A working draft that addresses the audible aspects of alarm function in anaesthesia and respiratory care is presently being considered by ISO/TC 121/SC 3. When complete, it will be published as ISO 9703-2.

Medical practice in operating rooms and intensive care areas is increasingly dependent on equipment for observation and treatment of patients. Alarms are frequently used to indicate the patient's physiological status and the functional state of the equipment. The purpose of ISO 9703-1 is to define alarm categories, visual indicators, and degree of urgency. The content of this International Standard was developed with contributions from clinicians, engineers and applied psychologists. The approach taken is intended to rationalize the current situation and to limit the proliferation of different alarms in order to avoid confusion, and to minimize the distraction of hospital staff not directly responsible for devices that are in the alarmed condition.

NOTES

AUSTRALIAN STANDARD

Anaesthesia and respiratory care alarm signals

Part 1: Visual alarm signals

1 Scope

This part of ISO 9703 specifies the characteristics of visual alarm signals intended for use in anaesthesia and respiratory care. It takes into account the recommendations of IEC 73[1].

It does not specify:

a) the medical devices on which alarms are provided;

b) the conditions that actuate the alarms;

c) the means of production of the alarm signals;

d) the allocation of priorities to alarms on medical devices;

NOTE 1 It is expected that the requirements for the application of the alarm signals specified in ISO 9703 will be included in "Particular Standards" (as formulated by IEC) for the particular medical devices.

2 Definitions

For the purposes of this part of ISO 9703, the following definitions apply.

2.1 clearly legible: Visual attribute of information displayed by the equipment that allows the operator to discern (or identify) qualitative or quantitative values or functions under a specific set of environmental conditions.

2.2 flashing frequency: Number of light flashes per unit of time.

2.3 high priority (warning) alarm: Signal indicating that immediate operator response is required.

2.4 medium priority (cautionary) alarm: Signal indicating that prompt operator response is required.

2.5 low priority (advisory) alarm: Signal indicating that operator awareness is required.

2.6 operator's position: Intended position of the operator with respect to the equipment for normal use according to the instructions for use.

3 Requirements

3.1 High priority alarm signal

A high priority signal shall have the characteristics given in table 1.

3.2 Medium priority alarm signal

A medium priority signal shall have the characteristics given in table 1.

3.3 Low priority alarm signal

A low priority signal shall have the visual characteristics given in table 1.

1) IEC 73:—, *Coding of indicating devices and actuators by means of colours and supplemental means — Requirements for safety* (forthcoming new edition of IEC 73:1984).