

INTERNATIONAL STANDARD

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Anaesthesia and respiratory care alarm signals —

Part 2: Auditory alarm signals

*Signaux d'alarme pour l'anesthésie et les soins respiratoires —
Partie 2: Signaux d'alarme auditifs*



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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9703-2 was prepared by Technical Committee ISO/TC 121, *Anaesthetic and respiratory equipment*, Subcommittee SC 3, *Lung ventilators and related equipment*.

ISO 9703 consists of the following parts, under the general title *Anaesthesia and respiratory care alarm signals*:

- *Part 1: Visual alarm signals*
- *Part 2: Auditory alarm signals*
- *Part 3: General requirements*
- *Part 4: Guidance on application*

Annexes A and B of this part of ISO 9703 are for information only.

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Introduction

Medical practice in hospitals is increasingly dependent on medical devices for observation and treatment of patients. Sounds and lights are frequently used to indicate the patient's physiological status and the functional state of the medical device. The sounds used are frequently too loud and not distinctive, and it is often difficult to identify which medical device is signalling. The purpose of this part of ISO 9703 is to specify the auditory component of alarm signals to be used to draw attention to the fact that the medical device has detected a disturbance and to indicate the degree of urgency.

This part of ISO 9703 was developed from contributions from clinicians, engineers and applied psychologists. The approach taken is intended to rationalize the current situation and to limit the proliferation of different sounds, in order to avoid confusion.

Some of the criteria considered during development of the sounds included optimal signal recognition in a relatively noisy environment, maximum transmission of information at the lowest practicable sound pressure level, ease of learning and retention by operators who have to respond to the various signals, and perceived urgency of the sounds.

Two important alarm signals are specified, i.e. high and medium priority signals. The auditory signals are acoustically related, but are differentiated by their perceived urgency. Guidelines are given for the design of a signal of lower priority than that of medium priority, and also for an information signal. Visual components are specified in ISO 9703-1.

NOTE 1 This International Standard is based on discussions held in ISO/TC 121 over a number of years, and on prEN 475, prepared by CEN/TC 259.

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