

JB

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JB/T 5062-2006

Replacing JB/T 5062-1991

Information display devices - General ergonomic requirements

信息显示装置 人机工程一般要求

(English Translation)

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1 Scope

This Standard specifies classification, design, basic principles for adoption and the general requirements for man-machine engineering of information display equipment.

This Standard is applicable to the control and monitor of machine, equipment, instrument, workplace and management processes.

This Standard is inapplicable to the departments and places with some special provisions.

2 Classification of Information Display Equipment

According to the sense organs of humans, the information display equipment is classified into visual display equipment, auditory display equipment, tactile display equipment, olfactory display equipment and multichannel display equipment.

2.1

Visual display is the information type comprising of light source, object or luminous sign and transmits various information via the visual organs of the operator.

2.2

Auditory display comprises of pure tone or complex tone and transmits information via the auditory organs of the operator, who can hear the signals without being at a fixed position.

2.3

Tactile display is the information which is transmitted via the contact of the tactile organs, especially the fingers of the operator with the outline, surface and geometric shape of the objects.

2.4

Olfactory display is the information which can be felt via the media smell (fragrant, offensive odor) emitted by substances (solid, liquid or gas) by the operator who need not be at a fixed position, even in engagement in other work.

Note: olfactory display is used for special or specific places and not involved in this Standard.

2.5

Multichannel display is display via two or above senses, e.g. visual display is accompanied by auditory display meanwhile and olfactory display is accompanied by auditory sense and light display etc.

3.1 Requirements for equipment adopting information display

- a) Information type requiring the reception of the operator;
- b) Rational approach, quantity and economic efficiency of information transmission;
- c) As for reception of certain type of information, the selection of sense organs shall be reasonable;
- d) Guarantee rapid display of quantity value or judgment and differentiation of information so that the operator can take measures timely.

3.2

Requirements for designing information display equipment:

- a) It shall display the important parameters of the control process (too many minor

parameters may increase the psychological load of the operator);

- b) Without special reasons, the same information or data shall not be displayed with different methods.
- c) The displayed information and data shall not exceed the observation scope and attention of the operator (the important display contents in technical process shall not exceed 7);
- d) It shall consider the capacity and characteristics of various human organs to receive information: in case of overlarge load for a kind of organ(s) (e.g. visual organ), another kind of organ(s) (e.g. auditory organs) must be applied to receive information;
- e) The structure of display equipment shall guarantee the functions under any specified conditions (e.g. lighting, noise, vibration and climate conditions etc.), but the optimal working conditions for the operator must be specified first;
- f) The most important or common display equipment must be arranged at optimum position easy for the operator to receive information;
- g) The quantity value displayed by information display equipment shall be provided with sufficient precision and reliable display;
- h) It strives for attractive appearance and convenient installation and maintenance.

4.1.1

Visual display equipment is used to display the distinct sign for the operation state of the equipment or system to the operator. The information displayed to the operator is only limited to fulfilling specific action or determining relevant contents, and the marks irrelevant with instrument functions shall not be displayed on the apparatus surface.