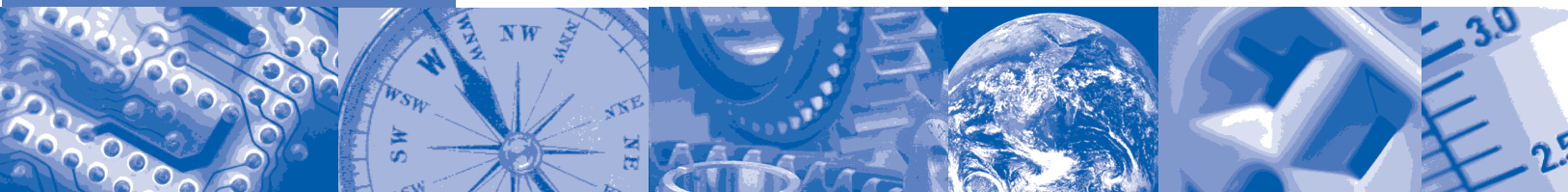


ISA-RP60.6-1984



Nameplates, Labels, and Tags for Control Centers



**ISA—The Instrumentation,
Systems, and
Automation Society**

Approved 28 February 1984



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ISA-RP60.6-1984, Nameplates, Labels, and Tags for Control Centers

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Preface

This preface is included for information purposes and is not a part of ISA-RP60.6-1984.

This Recommended Practice has been prepared as a part of the service of ISA toward a goal of uniformity in the field of instrumentation. To be of real value, this document should not be static, but should be subject to periodic review. Toward this end, the Society welcomes all comments and criticisms, and asks that they be addressed to the Secretary, Standards and Practices Board, ISA, 67 Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 27709, Telephone (919) 549-8411, e-mail: standards@isa.org.

The ISA Standards and Practices Department is aware of the growing need for attention to the metric system of units in general, and the International System of Units (SI) in particular, in the preparation of instrumentation standards. The Department is further aware of the benefits to U.S.A. users of ISA standards of incorporating suitable references to the SI (and the metric system) in their business and professional dealings with other countries. Toward this end, this Department will endeavor to introduce SI-acceptable metric units in all new and revised standards to the greatest extent possible. *The Metric Practice Guide*, which has been published by the Institute of Electrical and Electronic Engineers as ANSI/IEEE Std. 268-1982, and future revisions will be the reference guide for definitions, symbols, abbreviations, and conversion factors.

It is the policy of ISA to encourage and welcome the participation of all concerned individuals and interests in the development of ISA standards. Participation in the ISA standards-making process by an individual in no way constitutes endorsement by the employer of that individual, of the ISA, or of any of the standards that ISA develops.

The SP60 Committee is preparing a series of recommended practices on control centers. ISA-RP60.6 is the third of this series to be published. The published recommended practices and drafts in preparation are listed below:

RECOMMENDED PRACTICE

SECTION	TITLE
dRP60.1*	Control Center (C.C.) Facilities
dRP60.2*	C.C. Design Guide and Terminology
dRP60.3*	Human Engineering for Control Centers
dRP60.4*	Documentation for Control Centers
dRP60.5*	Control Center Graphic Displays
RP60.6	Nameplates, Labels, and Tags for Control Centers
dRP60.7*	Control Center Construction
RP60.8	Electrical Guide for Control Centers (published 1978)
RP60.9	Piping Guide for Control Centers (published 1981)
dRP60.10*	Control Center Inspection and Testing
dRP60.11*	Crating, Shipping and Handling for C.C.

*Draft Recommended Practice, for additional information on the status of this document contact ISA Headquarters.

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This Recommended Practice was approved for publication by the ISA Standards and Practices Board in February 1984.

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1 Purpose

The purpose of this Recommended Practice is to assist the designer or engineer in choosing and specifying the method of identifying items mounted on a control center or associated with a control center facility.

2 Scope

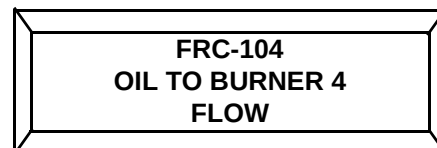
This Recommended Practice is intended to summarize identification methods and to suggest the uses of nameplates, labels, and tags. Examples are included for guidance in preparing drawings and specifications. (See Appendix A.) Since materials will determine the tools and techniques used, savings may be realized by using the materials and symbols standardized by the control center manufacturer selected—provided that the materials fully satisfy the application and purpose intended.

3 Functional definitions

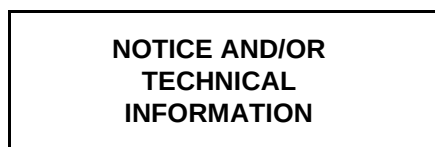
3.1 Nameplate: Used to display basic information, including function.



EXAMPLE:



3.2 Label: Used to inform of detailed instructions about item identified.



EXAMPLE:



3.2.1 Tags: Used to display specific information about item identified.



4 Identification

4.1 The effectiveness of controls and displays depends upon identification. Therefore, this identification should be positioned as close as is practical to its respective item. The location of the identification in relation to the item should be consistent throughout the control center to minimize confusion for operation, maintenance, and testing.

4.2 Identification lettering should be oriented horizontally and centered or left-justified. The minimum spacing between words should be the width of the letter "E." The spacing between the bottom of a line of lettering and the top of the following line should be a minimum of 40 percent and a maximum of 66 percent of the letter height. (See [Appendix A](#) for recommended spacing.)

4.3 Similar types of identification on controls and displays should have the same height letters with uniform stroke width. (See [Appendix B](#) for abbreviations and [Appendix C](#) for letter height recommendations.)

4.4 Letters should preferably be black or white on a sharply contrasting background, upper case (capital letters are preferred). Dark letters on light background will minimize illegibility from dirt buildup in the engraved letters. The condensed gothic style of letters is usually the easiest to read. (See [Appendix D](#).)

4.5 Background color may be used to emphasize separate but related functions. (See ISA-RP60.3 Human Engineering for Control Centers.) The most legible combination of letter color and background color should be used in lieu of using one letter color on all background colors.

4.6 When manufacturers' standards are not suitable, the material, type, and method of attachment of the identification should be specified.

5 Types of identification

5.1 The type and method of identification should be standardized early in the design to ensure consistency.

5.2 Nameplates are one of the most common types of identification and are used mostly on panels and displays. Nameplates are normally adjacent to the instruments to be identified. Nameplates may also be used in the back of panels to aid assembly, maintenance, and troubleshooting.

5.3 Labels made of flexible material may be used in all of the above situations and are especially useful on irregular surfaces (instrument bodies, etc.).

5.4 Tags are suitable for identifying interconnecting piping and wiring. Tags may be fastened with wire or plastic ties when other methods of attachment are not acceptable. (See [Appendix A](#).)

5.5 Terminal identification for wiring or tubing is necessary for installation, maintenance, and troubleshooting. See [Table 1](#) for a summary of processes used in terminal identification.

6 Materials

6.1 Most materials that can be cut or shaped can be used for identification purposes. Some of the most common materials used are metals, plastics, and laminated stocks. Nameplates are frequently made from laminated engraving stock.

6.2 Metals are used in making nameplates and tags. Aluminum, brass, steel, tinplate, and stainless steel are commonly used in embossing, engraving, stamping, and photoetching processes. Metals can be painted many different colors with chemical-resistant, baked enamel or epoxy paints.

6.3 Plastics are used in making nameplates, tags, and terminal identifications. A transparent plastic engraving stock, such as acrylic, rigid vinyl, and polycarbonate, is generally coated with paint on the back surface and engraved from the back side. The engraved area is then filled with a contrasting color paint.

6.4 Laminated engraving stocks have a contrasting color center core. A wide range of colors are available. Using an engraving machine, the characters are transferred to the stock by routing out the top colored layer to expose the contrasting color core. Laminated engraving stocks are available in various thicknesses and may be cut to the final nameplate size from sheet stock.

6.5 Heavy paper or fabric tags with handwritten or typed descriptions have uses as temporary identification if permanent methods are not available or desirable at the time of their installation.

6.6 The choice of materials used for identification may depend on the environment of the service. For instance, ultraviolet radiation from direct sunlight and heat can cause certain types of plastics to deteriorate.

7 Methods of fabrication

7.1 There are various acceptable methods of making nameplates, labels, and tags for identification of controls and displays, including the following processes:

7.1.1 Etching is a process of engraving lines in plates by means of acid. Etchings can be made on copper, steel, and glass, with copper being the most frequently used material.

7.1.2 Engraving is a method of carving words or designs on the surface of metal or plastics.

7.1.3 Painting is a process utilizing any kind of paint in various colors to cover almost any surface with designs and words.

7.1.4 Stenciling is a process of reproducing designs or letters on most surfaces by passing a brush wet with ink or paint over a stencil. A stencil is a thin sheet of metal or other material with lines and dots cut into it to form a pattern.

7.1.5 Silk screening is a means of printing with stencils on almost any surface. Almost any kind of ink or paint can be used in the process. Bolting cloth (stencil silk) is stretched across a frame, and a stencil pattern is applied to this supporting surface. A squeegee is used to force the ink or paint through the open areas of the stencil.

7.1.6 Typing is a common method used to produce printed characters on paper or other material.

7.1.7 Photo-etching is a photographic process of superimposing lines or designs, in color, permanently to anodized aluminum.

7.1.8 Embossing is a process in which a raised design is stamped or pressed by mechanical means on the surface of metal, paper, or plastic.

7.1.9 Stamping is the process of imprinting or making impressions by the use of a die or other stamping tools.

7.2 Each of the above processes has a certain cost vs. longevity ratio and should be selected on the basis of best serving the purpose desired.

Table 1 — Identification types

Process	Nameplates	Labels	Tags	Terminal Identification*
Etching	X		X	
Engraving	X	X	X	
Painting	X	X	X	X
Silk Screening		X		X
Stenciling		X		X
Typing	X	X	X	X
Photo-etching	X	X		
Lithography		X	X	
Embossing	X		X	
Stamping		X	X	X

*See Section 5 Types of Identification for terminal identification.

8 Methods of attachment

8.1 The most common methods of attachment are mechanical and adhesive.

8.2 Mechanical methods of attachment of nameplates, labels, and tags directly to the surface of an item by non-corrosive rivets, screws, brads, or clamps can be considered permanent. Wrap-around loops of chain, wire, and plastic ties can also be used for securing identification directly to the item to be identified.

8.3 Adhesives are available to attach nameplates to clean, smooth surfaces. The same purpose may be served by using double-faced pressure-sensitive tape. The permanence of adhesives is dependent upon the conditions to which they are subjected. A hostile and changing environment is the natural enemy of the adhesive method of attaching nameplates, and the permanence of the adhesive method is directly related to environmental exposure.

8.4 One of the considerations in choosing the method of attachment may be the desired degree of permanence. There may be instances where anticipated future revisions would sway the selection to a method of attachment that allows easy removal.

9 Typical locations

9.1 Identification of instruments and controls on the face of a control center may be used to make clear the relationship between systems and their subsystems. An example is shown in [Appendix A \(A-1\)](#).

9.2 Typical nameplates are shown in [Appendix A \(A-2\)](#). After the identification wording is selected and the size of lettering and number of lines are chosen, the overall dimensions of the nameplate may be selected using [Appendix A \(A-3\)](#). To aid in operator recognition, it may be desirable to identify similar types of devices or functions with the same size of nameplate. It is not recommended, however, that one size of nameplate be routinely used for all devices and functions without regard to the space actually required by the lettering in each case.

9.3 Typical wire terminal identifications are shown in [Appendix A \(A-4\)](#). Wiring schedules should establish the identification method used.

9.4 Control Center components that may be removed for maintenance should, as a minimum, have their permanent mounting locations identified. The removable component may also be identified.

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