C22.2 No. 0.12-M1985

Wiring Space and Wire Bending Space in Enclosures for Equipment Rated 750 V or Less

Electrical Installation

Please Note:

Δ **Refers to a formally approved revision dated July 1985.**

(reaffirmed 2012)

General Instruction No. 2

C22.2 No. 0.12-M1985
July, 1985

CSA Standard C22.2 No. 0.12-M1985, Wiring Space and Wire Bending Space in Enclosures for Equipment Rated 750 V or Less, was published in May, 1985; it consisted of 17 pages, each of which was dated May, 1985.

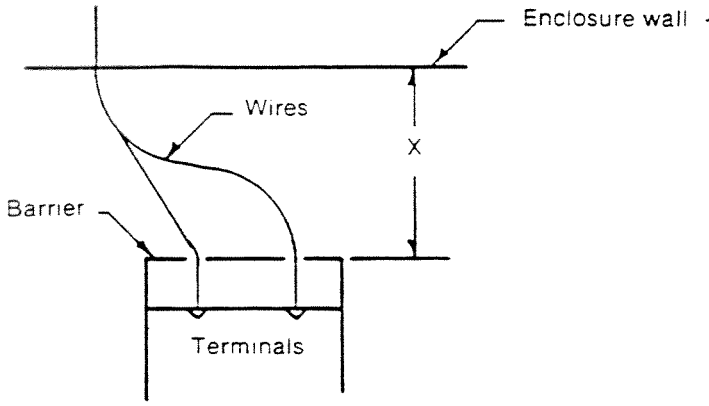
An erratum to Figures 4 and 5 is incorporated in the attached replacement page.

C22.2 No. 0.12-M1985 now consists of the following pages:

3—16 dated **May, 1985**;

17 dated **July, 1985**.

This replacement page is to be inserted into your copy of the Standard; the page replaced should be kept for reference.



X = Wire bending space per Table 2 or 3

Figure 4
(See Clause 3.3.5.)

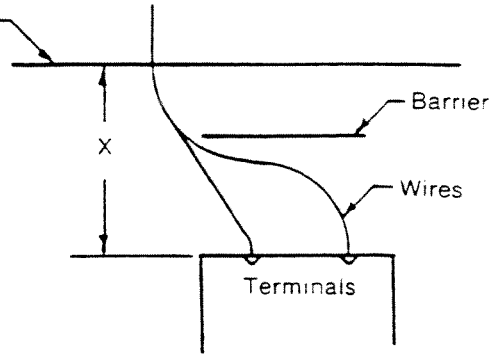


Figure 5
(See Clause 3.3.6.)

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Preface

This is the first edition of No. 0.12 of a series of Standards issued by Canadian Standards Association under Part II of the Canadian Electrical Code.

It is contemplated that Subcommittees responsible for other standards forming Part II of the Canadian Electrical Code may recommend for them detailed requirements, which, although differing from those herein, are judged to achieve the same objective.

For general information on the Standards of the Canadian Electrical Code, Part II, see the Preface of CSA Standard C22.2 No. 0, General Requirements—Canadian Electrical Code, Part II.

This Standard was prepared by a Subcommittee under the jurisdiction of the Standards Steering Committee on CE Code, Part II and was formally approved by this Committee.
May, 1985

Note: Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the user of the Standard to judge its suitability for his or her particular purpose.
CSA Standards are subject to periodical review and suggestions for their improvement will be referred to the appropriate committee. All enquiries regarding this Standard, including requests for interpretation, should be addressed to Canadian Standards Association, Standards Division, 178 Rexdale Boulevard, Rexdale (Toronto), Ontario M9W 1R3. Requests for interpretation should
(a) define the problem, making reference to a specific Clause, and, where appropriate, include an illustrative sketch;
(b) provide an explanation of circumstances surrounding the actual field condition; and
(c) be phrased, where possible, to permit a specific "yes" or "no" answer.
Interpretations are published in "CSA Information Update". For subscription details and a free sample copy, write to CSA Business Development Group or telephone (416) 747-4019.

Foreword

Canadian Standards Association provides certification services for manufacturers who, under license from CSA, wish to use the appropriate registered CSA Marks on certain products of their manufacture to indicate conformity with CSA Standards.

CSA Certification for a number of products is provided in the interest of maintaining agreed-upon standards of quality, performance, interchangeability and/or safety, as appropriate. Where applicable, certification may form the basis for acceptance by inspection authorities responsible for enforcement of regulations. Where feasible, programs will be developed for additional products for which certification is desired by producers, consumers or other interests.

In performing its functions in accordance with its objectives, CSA does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of the Association represent its professional judgement given with due consideration to the necessary limitations of practical operation and state of the art at the time the Standard is processed.

Products in substantial accord with this Standard but which exhibit a minor difference or a new feature may be deemed to meet the Standard providing the feature or difference is found acceptable utilizing appropriate CSA Certification Division Operating Procedures. Products which comply with this Standard shall not be certified if they are found to have additional features which are inconsistent with the intent of this Standard. Products shall not be certifiable if they are discovered to contravene applicable Federal laws or regulations.

Testing techniques, test procedures and instrumentation frequently must be prescribed by the CSA Certification Division in addition to the technical requirements contained in Standards of CSA. In addition to markings specified in the Standard the CSA Certification and Testing Division may require special cautions, markings and instructions that are not specified by the Standard.

Some tests required by CSA Standards may be inherently hazardous. The Association neither assumes nor accepts any responsibility for any injury or damage that may occur during or as the result of tests, wherever performed, whether performed in whole or in part by the manufacturer or the Association, and whether or not any equipment, facility or personnel for or in connection with the test is furnished by the manufacturer or the Association.

Manufacturers should note that, in the event of the failure of the CSA Certification and Testing Division to resolve an issue arising from the interpretation of requirements, there is an appeal procedure: the complainant should submit the matter, in writing, to the Secretary of the Canadian Standards Association.

If this Standard is to be used in obtaining CSA Certification please remember, when making application for certification, to request all current Amendments, Bulletins, Notices and Technical Information Letters that may be applicable and for which there may be a nominal charge. For such information or for further information concerning details about CSA Certification please address your inquiry to the Applications and Records Section, Canadian Standards Association, 178 Rexdale Boulevard, Rexdale (Toronto), Ontario M9W 1R3.

1. Scope

1.1
This Standard applies to enclosed equipment that is to be permanently field connected to line or load circuits rated 750 V or less.

1.2
Minimum wiring space and wire bending space requirements are specified for field installed wires terminating in or passing through enclosures or terminal boxes.

1.3
The requirements are considered to be the minima that would permit field wiring without damage to the wires.

1.4
This Standard shall form a part of and be read in conjunction with all individual standards to which the requirements of this Standard may apply, except that, where an individual standard contains requirements that are at variance with those of this Standard, the requirements of the individual standard shall take precedence.

1.5
This Standard does not apply to enclosures of equipment intended to be wired with conductors that are smaller than No. 14 AWG.

2. Definitions

2.1
The following definitions apply in this Standard:

Wire bending space means a wiring space opposite field wiring terminals or any other space in which it is intended that field installed wires may be bent or offset.

Wiring space means a space within an enclosure to accommodate field installed wires.

3. Requirements

3.1 General

3.1.1
There shall be adequate space within an enclosure for the installation and termination of all wires intended to be employed.

3.1.2
Wiring and wire bending spaces shall be smooth and free from sharp edges, burrs, or other sources of mechanical damage, which could damage wire insulation.

3.2 Wiring Space (See Appendix A.)
A wiring space shall have, clear of all obstructions, a cross sectional area of not less than 250% of the total cross sectional area of the maximum number of wires intended to be installed in it, and the minimum width or depth shall be not less than shown in Table 1.

3.3 Wire Bending Space at Field Wiring Terminals Including the Neutral (See Appendix A.)

3.3.1
Except as permitted in Clause 3.3.2, wire bending space shall, for the maximum size and number of wire(s) intended, be not less than

(a) as shown in Table 2; or

(b) as shown in Table 3 if the wire connectors can be readily removed to facilitate making connections.