



# CSA C22.2 No. 30:20

## National Standard of Canada



# Explosion-proof equipment



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***CSA C22.2 No. 30:20***

***April 2020***

**Title:** *Explosion-proof equipment*

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# *National Standard of Canada*

## *CSA C22.2 No. 30:20* ***Explosion-proof equipment***



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*Published in April 2020 by CSA Group  
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*ICS 21.180; 29.260.20  
ISBN 978-1-4883-2268-6*

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# Contents

Technical Committee on Industrial Products	4
Integrated Committee on Hazardous Location Products	6
Task Force on Explosion-Proof Equipment	10
Preface	12
<b>1 Scope</b>	<b>13</b>
<b>2 Reference publications</b>	<b>13</b>
<b>3 Definitions</b>	<b>15</b>
<b>4 General requirements</b>	<b>17</b>
<b>5 Construction</b>	<b>18</b>
5.1 General	18
5.1.1 Construction methods	18
5.1.2 Fabricated construction	18
5.2 Enclosure materials	18
5.2.1 Metallic Enclosures	18
5.2.2 Non-metallic enclosures or non-metallic parts of enclosures	19
5.3 Mechanical strength	19
5.4 Porosity in castings	19
5.5 Corrosion protection	20
5.6 Joints	20
5.6.1 General	20
5.6.2 Surface roughness	21
5.6.3 Threaded joints	21
5.6.4 Flat, cylindrical, rabbet, or shaft joints	21
5.6.5 Sealed joints	22
5.6.6 Gastight joints	22
5.6.7 Other joints	23
5.7 Fastenings	23
5.7.1 Removable fastenings	23
5.7.2 Cover fasteners	23
5.7.3 Nonremovable fastenings	23
5.7.4 Nameplate fastenings	24
5.8 Conduit or cable openings	24
5.9 Seals	24
5.9.1 General	24
5.9.2 Explosion seals — Poured	24
5.9.3 Explosion seals — Fabricated	25
5.9.4 Explosion seals — Compression	25
5.9.5 Process seal	25
5.10 Bonding	26

5.11	Threaded entries for field wiring of enclosures	26
5.11.1	Metric and NPT threaded entries	26
5.11.2	Field threaded entries	26
<b>6</b>	<b>Marking</b>	<b>26</b>
<b>7</b>	<b>Instructions provided with equipment</b>	<b>29</b>
7.1	General	29
7.2	Drilling and tapping of field wiring entries	29
<b>8</b>	<b>Tests</b>	<b>29</b>
8.1	General	29
8.2	Impact	30
8.2.1	General	30
8.2.2	Test procedure	30
8.2.3	Acceptance criteria	31
8.3	Explosion pressure tests	32
8.4	Arc-rupturing test	33
8.4.1	General	33
8.4.2	Circuit breakers	33
8.5	Explosion flame propagation test	34
8.5.1	General	34
8.5.2	Representative sample	34
8.5.3	Flame propagation test, more sensitive gas/air mixture, nominal gaps	34
8.5.4	Flame propagation test, prepressurized gas/air mixture, nominal gaps	34
8.5.5	Flame propagation test, standard gas/air mixture, enlarged gaps	34
8.5.6	Flame-arresting elements	35
8.5.7	Non-compliant gaps	35
8.6	Overpressure	35
8.6.1	General	35
8.6.2	Routine tests	35
8.6.3	Batch testing	36
8.6.4	Type test	36
8.7	Maximum surface temperature	36
8.7.1	Normal	36
8.7.2	Abnormal	37
8.8	Flammability	37
8.9	Gastight joints	37
8.10	Explosion test exemption for fittings	37
8.11	Test for sealing compounds for conduit sealing fittings	38
8.12	Non-metallic enclosure materials qualified by material tests	38
8.12.1	Chemical compatibility	38
8.12.2	Surface conductivity	39
8.12.3	Additional tests	40
8.13	Non-metallic enclosure materials qualified by complete enclosure tests	40
8.13.1	Solvent vapor exposure	40
8.13.2	Resistance to accumulation of electrostatic charge	40
8.13.3	Accelerated aging	41
8.13.4	Flamepath erosion tests	41

8.13.5 Surface Conductivity 41

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# Preface

This is the fourth edition of CSA C22.2 No. 30, *Explosion-proof equipment*. It supersedes previous editions published in 1986, 1984, and 1970. It is one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*.

This edition includes requirements for sealing fittings to retain the sealing compound, requirements for the sealing compounds, and requirements for enclosures that involve explosive fluids.

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of CAN/CSA-C22.2 No. 0, *General requirements — Canadian Electrical Code, Part II*.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Integrated Committee on Hazardous Location Products, under the jurisdiction of the Technical Committee on Industrial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

**Interpretations:** The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant CSA committee interpretation has not already been published, CSA Group's procedures for interpretation shall be followed to determine the intended safety principle."

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  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

# CSA C22.2 No. 30:20

## ***Explosion-proof equipment***

### **1 Scope**

#### **1.1**

This Standard applies to explosion-proof electrical equipment suitable for use in hazardous locations in accordance with CSA C22.1, *Canadian Electrical Code, Part I* and the requirements of CSA M421. It applies to explosion-proof enclosures, parts of enclosures and other related equipment constructed of metallic and non-metallic materials.

#### **1.2**

Other Standards for hazardous location equipment covering specific types of equipment take precedence over this Standard.

#### **1.3**

The standard atmospheric conditions (relating to the explosion characteristics of the atmosphere) under which it may be assumed that equipment can be operated are

- a) temperature  $-50\text{ }^{\circ}\text{C}$  to  $+60\text{ }^{\circ}\text{C}$ ;
- b) pressure 80 kPa to 110 kPa; and
- c) air with normal oxygen content, typically 21% by volume.

**Note:** *Although the standard atmospheric conditions above give a temperature range for the atmosphere of  $-50\text{ }^{\circ}\text{C}$  to  $+60\text{ }^{\circ}\text{C}$ , the normal ambient temperature range for the equipment is  $-50\text{ }^{\circ}\text{C}$  to  $+40\text{ }^{\circ}\text{C}$ , unless otherwise specified and marked.*

#### **1.4**

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

### **2 Reference publications**

This Standard refers to the following publications. For dated references, only the edition cited shall apply. For undated references, the latest edition of the referenced document (including any amendments) shall apply.