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(affiliée à l'Organisation Internationale de Normalisation — ISO)

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Electrical apparatus for explosive gas atmospheres

Part 9: Marking



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES

Part 9 : Marking

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote this international unification, the IEC expresses the wish that all National Committees having as yet no national rules, when preparing such rules, should use the IEC recommendations as the fundamental basis for these rules in so far as national conditions will permit.
- 4) The desirability is recognized of extending international agreement on these matters through an endeavour to harmonize national standardization rules with these recommendations in so far as national conditions will permit. The National Committees pledge their influence towards that end.
- 5) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

PREFACE

This Recommendation has been prepared by IEC Technical Committee No. 31, Electrical Apparatus for Explosive Atmospheres.

It forms one of a series of publications dealing with electrical apparatus for use in explosive gas atmospheres. Some of these publications are concerned with particular techniques. Others, of which this is one, are relevant to all techniques.

The following parts of Publication 79 have already been published:

- Flameproof enclosures (see Publication 79 *)
- Pressurized enclosures (see Publication 79-2)
- Testing of intrinsically safe apparatus (see Publication 79-3)
- Method of test for ignition temperature (see Publication 79-4)
- Sand-filled apparatus (see Publication 79-5)
- Oil-immersed apparatus (see Publication 79-6)
- Type "e" apparatus (see Publication 79-7)
- Classification of maximum surface temperatures (see Publication 79-8).

A description of the techniques available for making electrical apparatus safe for use in gas atmospheres, with general guidance on the subject, is in course of preparation.

A draft dealing with the system of marking was discussed at the meeting held in Ottawa in 1966 and separate drafts of the recommendation and the Appendix were submitted to the National Committees for approval under the Six Months' Rule in November 1967.

The following countries voted explicitly in favour of publication of Part 9:

Australia	Netherlands
Austria **	Norway
Belgium	Poland
Canada	Romania
Czechoslovakia	South Africa
Denmark	Sweden
Finland	Switzerland
France	Turkey
Germany	Union of Soviet Socialist Republics
Iran	United Kingdom
Israel	United States of America
Italy	Yugoslavia
Japan	

* When the 1957 edition of Publication 79 is revised, the number will be changed to 79-1.

** Did not vote explicitly in favour of publication of the Appendix.

ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES

Part 9 : Marking

1. Scope

This Part of IEC Publication 79 describes the system of marking adopted by the IEC for identifying electrical apparatus intended for use in explosive gas atmospheres and constructed in accordance with other Parts of IEC Publication 79.

Note. — It is important, in the interest of safety, that this system of marking should not be used for apparatus which is not covered by IEC Publication 79 or which does not comply in all respects with the appropriate part of this Publication.

2. Object

The object of this Recommendation is to enable electrical apparatus constructed in accordance with IEC Publication 79 to be readily identified, according to the method of protection adopted.

3. Marking

The recognized system of marking is as follows:

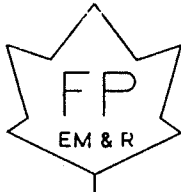
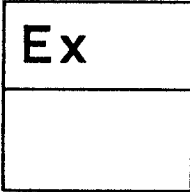
- a) The letters "IEC".
- b) The number "79" followed by a hyphen and the number of the appropriate Part of IEC Publication 79.
- c) The appropriate group symbol:
I: for application in coal mining;
II: for application in other industries.
- d) For certain methods of protection only, the appropriate sub-group symbol, e.g. "A", "B", "C".
- e) Marking in accordance with IEC Publication 79-8 to indicate the maximum surface temperature.
- f) The name or symbol of the national or other appropriate authority and the number of the certificate or the approval number.

Notes 1. — The full requirements for marking a given enclosure or piece of apparatus are given in the appropriate part of IEC Publication 79. They include marking additional to that given above.

2. — The following is an example of marking in accordance with a), b), c), d) and e) above:

IEC 79-1 IIA T3

3. — The symbols at present used by the various national and other appropriate authorities are given in the Appendix.

Pays Country	Symbole Symbol		Remarques Remarks
	Mines	Autres industries Other industries	
Canada			Le symbole CSA n'indique la certification pour les atmosphères explosives que s'il est accompagné de la désignation appropriée de la zone dangereuse. The CSA symbol only indicates certification for explosive atmospheres if accompanied by the appropriate hazardous location designation.
Tchécoslovaquie Czechoslovakia			La partie supérieure du symbole est complétée par l'inscription d'un numéro qui indique le mode de protection. La partie inférieure est complétée par l'inscription d'une ou deux lettres, dont la première ne s'applique qu'aux enveloppes antidéflagrantes et indique le groupe de gaz pour lequel le matériel est convenable. La lettre « M » indique le méthane et ne s'applique qu'au matériel pour les mines. La deuxième lettre indique la classe de température et ne figure pas sur le matériel pour les mines. The upper part of the symbol is completed by adding a number to indicate the method of protection. The lower part is completed by inserting one or two letters, of which the first is used for flameproof enclosures only and indicates the group of gases for which the apparatus is suitable; "M" indicates methane and applies to mining equipment only. The second letter indicates the temperature class and does not appear on mining equipment.

Pays Country	Symbole Symbol		Remarques Remarks
	Mines	Autres industries Other industries	
Italie Italy	AD-PE		Enveloppe antidéflagrante. Le symbole est suivi du numéro du certificat d'essai et de la marque de l'autorité d'essai (par exemple, «CESI»), conformément à la norme 259 du Comité Electrotechnique Italien. Flameproof enclosure. The symbol is followed by the number of the test certificate and the mark of the testing authority (e.g. "CESI"), in accordance with Italian Electrotechnical Committee Standard 259.
Pays-Bas Netherlands	Ex		Le symbole n'indique la certification que s'il est suivi du numéro du certificat et de l'indication de la station d'essai (numéro ou abréviation de nom). The symbol only indicates certification if it is followed by the number of the certificate and an indication of the testing station (number or abbreviation of name).
Norvège Norway			Le symbole est la marque générale d'approbation pour le matériel électrique. Des symboles complémentaires indiquant la certification pour les diverses zones dangereuses sont à l'étude. The symbol is the general approval mark for electrical apparatus. Additional symbols indicating certification for different hazardous locations are under consideration.

Pays Country	Symbole Symbol		Remarques Remarks
	Mines	Autres industries Other industries	
Suisse Switzerland	 		Sécurité. Safety. Qualité, y compris sécurité. Quality, including safety.
Union des Républiques Socialistes Soviétiques Union of Soviet Socialist Republics			En URSS, il n'y a pas de symbole spécial de certification pour indiquer que le matériel a subi les essais avec succès et qu'il peut, sans danger, être utilisé dans les atmosphères explosives. Les symboles conventionnels indiquant le type de protection, etc., ne sont marqués sur le matériel qu'après les essais. Ces symboles conventionnels indiquent que le matériel convient à l'utilisation en atmosphères explosives. In the USSR, there is no special certification symbol indicating that the equipment has been tested and found safe for use in explosive atmospheres. Conventional symbols indicating the type of protection, etc., are marked on the equipment only after it has been tested. These conventional symbols indicate that the equipment is suitable for use in explosive atmospheres.

Pays Country	Symbole Symbol		Remarques Remarks
	Mines	Autres industries Other industries	
Etats-Unis d'Amérique United States of America		  	L'insigne du Bureau des Mines figure sur une plaque qui porte également les numéros du certificat d'approbation, de type et de série du matériel. The insignia of the Bureau of Mines appears on a plate which also bears the approval, type and serial numbers of the apparatus. Exemples de marquage utilisés par les organismes d'essai. These symbols are typical of markings used by testing organizations.
Yougoslavie Yugoslavia			Ce symbole indique que le matériel a été homologué par l'autorité nationale pour emploi en atmosphères explosives dans les mines ainsi que dans les autres industries. Il s'applique à tous les modes de protection. This symbol shows that apparatus has been certified by the national authority for use in explosive atmospheres in mines and other industries. It covers all methods of protection.