1 Scope

This standard is to be read in conjunction with ~~IEC~~ANSI/ISA-61241-0, the requirements of which apply to electrical apparatus protected by encapsulation and surface temperature limitation unless specifically excluded.

This ~~part of IEC 61241~~standard is applicable to electrical apparatus protected by encapsulation type of protection “mD" and surface temperature limitation for use in areas where combustible dust may be present in quantities which could lead to a fire or explosion hazard. It specifies requirements for design, construction and testing of electrical apparatus, parts of electrical apparatus and Ex components where the rated voltage does not exceed 10 kV.

NOTE 1 The actual working voltage may exceed the value given above by up to 10 %.

NOTE 2 ~~IEC 61241-14 (“Electrical apparatus for use in the presence of combustible dust – Part 14: Selection and installation”) gives guidance on the selection and installation of the apparatus.~~ Apparatus within the scope of this standard may also be subjected to additional requirements in other standards – for example, ~~IEC~~ ANSI/ISA-60079-0 (“Electrical apparatus for explosive gas atmospheres - Part 0: General requirements”).

The application of electrical apparatus in atmospheres which may contain explosive gas as well as combustible dust, whether simultaneously or separately, requires additional protective measures.

This standard does not apply to dusts of explosives which do not require atmospheric oxygen for combustion, or to pyrophoric substances.

This standard is not applicable to electrical apparatus intended for use in underground parts of mines as well as those parts of surface installations of such mines endangered by firedamp and/or combustible dust. This standard does not take account of any risk due to an emission of flammable or toxic gas from the dust.

This standard does not include other types of protection and is only applicable to protection by encapsulation.

2 ~~Normative~~ ~~r~~References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

~~IEC 60079-7:2001, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety "e“*~~

ANSI/ISA-60079-7 (12.16.01)-2002, *Electrical Apparatus for Use in Class I, Zone 1 Hazardous (Classified) Locations: Type of Protection – Increased Safety “e”*

~~IEC 60079-11:1999, *Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety "i“*~~

ANSI/ISA-60079-11 (12.02.01)-2002, *Electrical Apparatus for Use in Class I, Zone 1 Hazardous (Classified) Locations: Type of Protection – Intrinsic Safety “i”*