

AMERICAN NATIONAL STANDARD

ANSI/ISA-61241-0 (12.10.02)-2006 (R2011)

**Electrical Apparatus for Use in Zone 20, Zone 21
and Zone 22 Hazardous (Classified) Locations –
General Requirements**

Approved 29 March 2011

ANSI/ISA-61241-0 (12.10.02)-2006 (R2011), Electrical Apparatus for Use in Zone 20, Zone 21 and Zone 22 Hazardous (Classified) Locations – General Requirements

ISBN: 978-1-936007-88-2

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Foreword

All text of IEC 61241-0:2004 (1st edition) is included. U.S. National Deviations are shown by ~~strikeout~~ through text deleted and underline under text added. There are three annexes in this standard. All are informative and are not considered part of this standard.

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1 Scope

This ~~standard part of IEC 61244~~ specifies general requirements for the design, construction, testing and marking ~~of which is applicable to electrical apparatus protected by any recognized safeguard protection~~ technique for use in areas where combustible dust may be present in quantities that could lead to a fire or explosion hazard.

This standard is supplemented or modified by the following standards ~~parts of IEC 61244~~ concerning specific types of protection:

- ANSI/ISA-61241-1 (12.10.03), Electrical Apparatus for Use in Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Enclosures “tD” Part 1: Protection by enclosures ‘tD’
- ANSI/ISA-61241-2 (12.10.06), Electrical Apparatus for Use in Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Pressurization “pD” Part 2: Protection by pressurization ‘pD’ (under consideration)
- ANSI/ISA-61241-11 (12.10.04), Electrical Apparatus for Use in Zone 20, Zone 21, and Zone 22 Hazardous (Classified) Locations – Protection by Intrinsic Safety “iD” Part 11: Intrinsically safe apparatus
- ANSI/ISA-61241-18 (12.10.07), Electrical Apparatus for Use in Zone 20, Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Encapsulation “mD” Part 18: Protection by encapsulation ‘mD’

~~NOTE IEC 61244-14 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 60079-0.~~

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 specify requirements for safety, other than those directly related to the explosion risk.

Where the apparatus has to meet other environmental conditions, for example, protection against ingress of water and resistance to corrosion, additional methods of protection may be necessary. The method used is not to adversely affect the integrity of the enclosure.

This standard does not apply to dusts of explosives that 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.

Electrical apparatus and Ex components for use in explosive dust atmospheres shall also comply with the applicable requirements for similar apparatus for use in unclassified locations.