

AMERICAN NATIONAL STANDARD

ISA-61241-2 (12.10.06)-2006 (R2015)

**Electrical Apparatus for Use in Zone 21 and
Zone 22 Hazardous (Classified) Locations –
Protection by Pressurization “pD”**

Reaffirmed 29 September 2015

ANSI/ISA-61241-2 (12.10.06)-2006 (R2015)
Electrical Apparatus for Use in Zone 21 and Zone 22 Hazardous (Classified) Locations –
Protection by Pressurization “pD”

ISBN: 978-1-941546-39-0

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Foreword

All text of IEC 61241-4:2001 (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. Annexes A and B are normative and are considered part of this standard. Annex C is informative and is not considered part of this standard.

IEC 61241-4:2001 has been withdrawn and replaced by IEC 60079-2:2014, *Electrical apparatus for use in the presence of combustible dust - Part 4: Type of protection "pD"*. ANSI/ISA-61241-2 (12.10.06)-2006 (R2015) is being maintained for the 2017 publication of NFPA 70: *National Electrical Code®*, in which the ISA standard is referenced.

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1 Scope

This ~~standard part of IEC 61241~~ gives requirements on the design, construction, testing and marking of electrical apparatus for use in combustible dust atmospheres in which a protective gas (air or inert gas), maintained at a pressure above that of the external atmosphere, is used to prevent the entry of dust which might otherwise lead to the formation of a combustible mixture within enclosures which do not contain a source of combustible dust.

This standard contains the specific requirements for construction and testing, including protective requirements that apply to electrical apparatus with type of protection pressurization "pD" intended for use in potentially combustible dust atmospheres.

This standard includes the requirements for the construction of the enclosure and its associated components, including, if any, the inlet and outlet ducts for the protective gas, and for the safety provisions and devices necessary to ensure that pressurization is established and maintained for type of protection pressurization "pD".

Requirements for pressurized enclosures with an internal source of dust release are not included in this standard.

This standard does not cover the requirements for pressurized rooms with or without internal sources of dust release.

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

This standard does not cover combined gas and dust hazard. Those requirements are under consideration.

The requirements contained in this standard are supplementary to those in ~~IEC 61241-1-1~~ ANSI/ISA-61241-0.

2 Normative References

~~The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61241. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61241 are encouraged to investigate the possibility of applying the most recent editions of the normative documents listed below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.~~

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 60034-1:1996, *Rotating electrical machines – Part 1: Rating and performance* ¹⁾

¹⁾ There exists a consolidated edition 10.2 (1999) that includes edition 10.0 and its amendments.