



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 3836.2-2021

**Explosive atmospheres - Part 2: Equipment protection by
flameproof enclosures 'd'**

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents.

This Document is Part 2 of GB/T 3836 Explosive Atmospheres. GB/T 3836 has published the following parts.

- Part 1.Equipment - General Requirements;
- Part 2.Equipment Protection by Flameproof Enclosure "d";
- Part 3.Equipment Protection by Increased Safety "e";
- Part 4.Equipment Protection by Intrinsic Safety "i";
- Part 5.Equipment Protection by pressurized Enclosure "p";
- Part 6.Equipment Protection by Liquid Immersion "o";
- Part 7.Equipment Protection by Powder Filling "q";
- Part 8.Equipment Protection by Type of Protection "n";
- Part 9.Equipment Protection by Encapsulation "m";
- Part 11.Material Characteristics for Gas and Vapour Classification - Test

Methods and Data;

- Part 12. Material Characteristics for Combustible Dusts - Test Methods;
- Part 13. Equipment Repair, Overhaul, Reclamation and Modification;
- Part 14. Classification of Areas - Explosive Gas Atmosphere;
- Part 15. Electrical Installations Design, Selection and Erection;
- Part 16. Electrical Installations Inspection and Maintenance;
- Part 17. Equipment Protection by Pressurized Room "p" and Artificially Ventilated Room "v";
- Part 18. Intrinsically Safe Electrical Systems;
- Part 20. Equipment with Equipment Protection Level (EPL) Ga;
- Part 21. Application of Quality Systems for Equipment Manufacture;
- Part 22. Protection of Equipment and Transmission System Using Optical Radiation;
- Part 23. Group I, Category EPL Ma Equipment Intended to Remain Functional in Atmospheres Endangered by Firedamp and/or Coal Dust;
- Part 24. Equipment Protection by Special Protection "s";
- Part 25. Requirements for Process Sealing between Flammable Process Fluids and Electrical Systems;
- Part 26. Electrostatic Hazards - Guidance;
- Part 27. Electrostatic Hazards - Test;
- Part 28. Non-Electrical Equipment for Explosive Atmospheres - Basic Method and Requirements;
- Part 29. Non-Electrical Equipment for Explosive Atmospheres - Constructional Safety "c", Control of Ignition Source "b", Liquid Immersion "k";
- Part 30. Equipment and Components in Explosive Atmospheres in Underground Mines;
- Part 31. Equipment Dust Ignition Protection by Enclosure "t";
- Part 32. Intrinsically Safe Systems with Electronically Controlled Spark Duration

Limitation;

--- Part 33.Equipment in Adverse Service Conditions;

--- Part 34.Equipment Assemblies;

--- Part 35.Classification of Areas for Explosive Dust Atmospheres.

This Document replaced GB 3836.2-2010 Explosive Atmospheres - Part 2.Equipment Protection by Flameproof Enclosures "d". Compared with GB 3836.2-2010, this Document made the major technical changes besides the structural adjustments and editorial modifications.

--- Delete the clause of equipment category and temperature group (see Clause 4 of 2010 Edition);

--- Add the Clause of protection level (see Clause 4 of this Edition);

--- Add special conditions of use that the flameproof joints are not expected to be repaired (see 5.1 of this Edition);

Explosive Atmospheres - Part 2.Equipment

Protection by Flameproof Enclosures "d"

1 Scope

This Document contains specific requirements for the construction and testing of electrical equipment with the type of protection flameproof enclosure "d", intended for use in explosive gas atmospheres.

This Document is applicable to electrical equipment protected by flameproof enclosure "d" intended to be used in explosive gas atmospheres.

2 Normative References

The provisions in following documents become the provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 197 General Purpose Metric Screw Threads - Tolerances (GB/T 197-2018,

ISO 965-1.2013, MOD)

GB/T 1406.2 Types and Dimensions of Lamp Caps - Part 2.Pin Lamp Caps (GB/T 1406.2-2008, IEC 60061-1.2005, MOD)

GB/T 2516 General Purpose Metric Screw Threads - Limit Deviations (GB/T 2516-2003, ISO 965-3.1998, MOD)

GB/T 3836.1 Explosive Atmospheres - Part 1.Equipment - General Requirements (GB/T 3836.1-2021, IEC 60079-0.2017, MOD)

GB/T 3836.3 Explosive Atmospheres - Part 3.Equipment Protection by Increased Safety "e" (GB/T 3836.3-2021, IEC 60079-7.2015, MOD)

GB/T 3836.4 Explosive Atmospheres - Part 4.Equipment Protection By Intrinsic Safety "i" (GB/T 3836.4-2021, IEC 60079-11.2011, MOD)

GB/T 3836.8 Explosive Atmospheres - Part 8.Equipment Protection by Type of Protection "n" (GB/T 3836.8-2021, IEC 60079-15.2017, MOD)

GB/T 5163 Sintered Metal Materials, Excluding Hard Metals - Permeable Sintered Metal Materials - Determination of Density, Oil Content, and Open Porosity (GB/T 5163-2006, ISO 2738.1999, IDT)

GB/T 5249 Permeable Sintered Metal Materials - Determination of Bubble Test Pore Size (GB/T 5249-2013, ISO 4003.1977, IDT)

GB/T 5250 Permeable Sintered Metal Materials - Determination of Fluid Permeability (GB/T 5250-2014, ISO 4022.1987, IDT)

GB/T 9364 (all parts) Miniature Fuses [IEC 60127 (all parts)]

GB/T 19148.2 Types and Dimensions of Lamp Holders - Part 2.Pin Lamp Holders (GB/T 19148.2-2008, IEC 60061-2.2004, MOD)

ANSI/ASME B1.20.1 Pipe Threads, General Purpose (Inch)

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in GB/T 3836.1 and the following apply.

NOTE. Additional definitions applicable to explosive atmospheres can be found in GB/T 2900.35.