

ICS 29.260.20
CCS K35



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

GB/T 3836.5-2021

**Explosive atmospheres - Part 5: Equipment protection by
pressurized enclosure 'p'**

爆炸性环境 第5部分：由正压外壳“p”保护的
设备
(English Translation)

Issued on: October 11, 2021

Implemented on: May 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	
2 Normative references	
3 Terms and definitions	
4 Protection level	
5 Structural requirements for positive pressure enclosures	
6 Temperature limit	
7 Safety measures and safety devices (except static positive pressure protection)	
8 Safety measures and safety devices for static positive pressure	
9 Supply of protective gas	
10 Positive pressure housing with internal release source	
11 Release conditions	
12 Design requirements for built-in systems	
13 Shielding gas with internal release source and positive pressure technology	
14 Equipment capable of igniting	
15 Internal hot surface	
16 Type inspection and test	
17 Routine test	
19 Operating Instructions	
1 Scope	
2 Normative references	
5 Structural requirements for positive pressure enclosures	
5.1 Housing	
5.2 Material	
5.3 Doors and covers	
5.3.1 Type I positive pressure enclosure	
5.3.2 Class I positive pressure enclosure with static positive pressure protection	
5.3.3 Type ? positive pressure enclosure	
5.3.4 Positive pressure enclosures of category ? and ? with static positive pressure protection	
5.3.5 Type ? and ?. pxb type	
5.3.6 Warnings for Class ? and ? Doors and Covers	
5.4 Mechanical strength	

- 5.5 Class ? and ? pores, partitions, partitions and internal components
 - 5.5.1 The arrangement of air holes and partitions shall ensure effective ventilation.
 - 5.5.3 Cathode ray tubes (CRTs) and other airtight devices do not require ventilation.
- 5.6 Air holes of the static positive pressure protection enclosure
- 5.7 Insulation material
- 5.8 Seal
- 5.9 Spark and particle baffle
- 5.10 Batteries and battery packs
- 6 Temperature limit
 - 6.1 General
 - 6.2 For "pxb" or "pyb" protection level
 - 6.3 For "pzc" protection level
- 7 Safety measures and safety devices (except static positive pressure protection)
 - 7.1 Applicability of safety devices in hazardous locations
 - 7.2 Integrity of safety devices
 - 7.4.3 Positive pressure system with "pxb" protection level
 - 7.6 Safety device ratings
 - 7.7 Automatic ventilation of positive pressure enclosures of "pxb" protection class ? and ?
 - 7.8 Ventilation requirements for positive pressure enclosures of type ? or type ?
 - 7.9 Cleaning of Type ? Positive Pressure Shell
 - 7.10 Requirements at the lowest flow rate
 - 7.11 Safety device for detecting the lowest positive pressure
 - 7.12 Minimum positive pressure value
 - 7.13 Positive pressure protection of multiple enclosures
 - 7.14 Safety device on door or cover
 - 7.15 Equipment that may be live
 - 7.16 Equipment allowed in enclosures with "pyb" protection class
- 8 Safety measures and safety devices for static positive pressure
 - 8.1 Applicability of safety devices for hazardous locations
 - 8.2 Shielding gas
 - 8.3 Internal release source
 - 8.4 Inflation procedure for type ? and type ? positive pressure enclosures
 - 8.5 Inflation procedure for type ? positive pressure enclosure
 - 8.6 Safety device

- 8.7 Equipment that may be live
- 8.8 Positive pressure
- 9 Supply of protective gas
 - 9.1 Spare supply
 - 9.2 Independent supply
 - 9.3 Shielding gas type
 - 9.4 Temperature
- 10 Positive pressure housing with internal release source
- 11 Release conditions
 - 11.1 No release
 - 11.1.1 When there is no fault in the built-in system, there is no internal release, see 12.2.
 - 11.2 Limited release of gas or vapor
 - 11.3 Limited release of liquids
- 12 Design requirements for built-in systems
 - 12.1 General design requirements
 - 12.2 Trouble-free built-in system
 - 12.3 Built-in system with limited release
- 13 Shielding gas and positive pressure technology with internal release source
 - 13.1 General

What is delivered

The English PDF of this standard, delivered to your email address.

Instant delivery: the file is sent automatically after payment.