

Edition 6.0 2014-07

INTERNATIONAL STANDARD

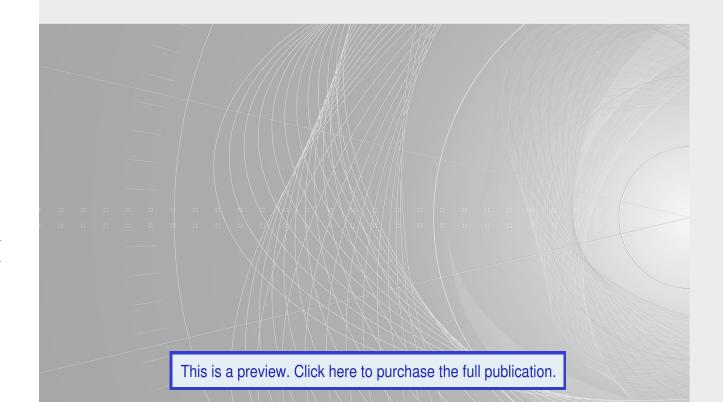
NORME INTERNATIONALE

Explosive atmospheres -

Part 2: Equipment protection by pressurized enclosure "p"

Atmosphères explosives -

Partie 2: Protection du matériel par enveloppe à surpression interne "p"





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE CODE PRIX

ICS 29.260.20 ISBN 978-2-8322-1746-7

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES -

Part 2: Equipment protection by pressurized enclosure "p"

FOREWORD

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International Standard IEC 60079-2 has been prepared by technical committee 31: Explosive atmospheres.

This sixth edition cancels and replaces the fifth edition published in 2007. This sixth edition cancels and replaces the first edition of IEC 61241-4 published in 2001. This sixth edition constitutes a technical revision.

The significance of changes between IEC 60079-2, Edition 6.0, 2014 and IEC 60079-2, Edition 5.0, 2007 are as listed below:

		Туре		
Changes	Clause	Minor and Editorial Changes	Extension	Major Technical Changes
Scope	1		Х	
Expanded to include combustible dust				
Protective Gas	3			
Replaced "apparatus" with "equipment"				
Protective Gas	3.16	Х		
Revised to show that purging is not required for explosive dust atmospheres				
Level of Protection "pxb"	3.21	Х		
Term and definitions revised to reflect EPL and level of protection				
Level of Protection "pyb"	3.22	Х		
Term and definitions revised to reflect EPL and level of protection				
Level of Protection "pzc"	3.23	Х		
Term and definitions revised to reflect EPL and level of protection				
Lower Flammable Limit	3.26	Х		
Term and definition revised to agree with 60079-0				
Upper Flammable Limit	3.27	Х		
Term and definition revised to agree with 60079-0				
Table 1 – Determination of protection level	Table 1	Х		
Revised to use EPL terminology				
Table 2 – Design Criteria based upon level of protection	Table 2	Х		
Revised to use EPL terminology				
Enclosure	5.1		Х	
Requirements relaxed for specific designs				
Group II and Group III pressurized enclosures	5.3.3	Х		
Text revised to use EPL terminology				
Group II and Group III Level of Protection "pxb"	5.3.5		Х	
Added that warning also applies for explosive dust atmospheres				
Group II and Group III door and cover warning	5.3.6		Х	
Added that warning also applies for explosive dust atmospheres				
Group II and Group III door and cover warning	5.3.6	Х		
Revised warning from atmosphere "may be present" to "is present"				
Mechanical Strength	5.4	Х		
Removed reference to 60079-0 by clause number for "X" condition				
Spark and particle barriers	5.9	Х		
Removed reference to 60079-0 by clause number for "X" condition				
Cells and batteries	5.10			C1
Added requirements for cells and batteries				
For Level of Protection "pxb" or Level of Protection "pyb"	6.2	Х		
Revised Table to use terminology consistent with EPLs				

		Туре		
Changes	Clause	Minor and Editorial Changes	Extension	Major Technical Changes
Suitability of safety devices for hazardous area	7.1	Х		
Word "explosion" changed to "ignition" to reflect UFL/LFL terms				
Integrity of safety devices	7.2			C2
Added requirement for detecting fan failure				
Table 3 – Safety devices based upon Level of Protection	Table 3	Х		
Revised column labels to use Level of Protection terminology				
Provider of safety devices	7.3	Х		
Remove reference to 60079-0 by clause number for "X" condition				
Pressurization System evaluated as associated equipment	7.4			C3
Added requirements for pressurization systems				
Sequence diagram for Level of Protection "pxb"	7.5	Х		
Revised text to use Level of Protection terminology				
Group I and Group II purging automated for Level of Protection "pxb"	7.7	Х		
Revised text to use Level of Protection terminology				
Group I and Group II purging automated for Level of Protection "pxb"	7.7			C4
Added text specifying that for "pxb", control must be automated				
Group I or Group II – purging criteria	7.8	Х		
Revised text to use Level of Protection terminology				
Group III – cleaning	7.9		Х	
Added text for cleaning enclosures used in explosive dust atmospheres				
Safety devices to detect minimum overpressure	7.11	Х		
Add word "minimum" to clause title to be consistent with text				
Safety devices to detect minimum overpressure	7.11 d)	Х		
Revised text to use Level of Protection terminology				
Value of minimum overpressure	7.12	Х		
Added word "minimum" to clause title to be consistent with text				
Value of minimum overpressure	7.12	Х		
Revised text to use Level of Protection terminology				
Value of minimum overpressure	7.12		Х	
Added text to reflect a note in Annex C				
Pressurizing multiple enclosures	7.13	Х		
Revised text to use Level of Protection terminology				
Safety devices on doors and covers	7.14	Х		
Revised text to use Level of Protection terminology				
Equipment that may remain energized	7.15	Х		
Revised text to use EPL and level of protection terminology				
Equipment permitted within Level of Protection "pyb"	7.16	Х		
Revised text to use EPL and level of protection terminology				
Group I and Group II Filling procedure	8.4		Х	
Allow filling in a hazardous location if tested as non-hazardous				