

ISBN 978-0-626-29170-9

**SANS 60079-16:1990**

Edition 1 and nat. amdt 1

**IEC 60079-16:1990**

Edition 1

Any reference to SABS IEC 60079-16 is deemed  
to be a reference to this standard  
(Government Notice No. 1373 of 8 November 2002)

## **SOUTH AFRICAN NATIONAL STANDARD**

### **Electrical apparatus for explosive gas atmospheres**

### **Part 16: Artificial ventilation for the protection of analyzer(s) houses**

This national standard is the identical implementation of IEC 60079-16:1990 and is adopted with the permission of the International Electrotechnical Commission.

**SANS 60079-16:1990**

Edition 1 and nat. amdt 1

**IEC 60079-16:1990**

Edition 1

**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>
Nat. amdt 1	2006	Amended to change the designation from SABS to SANS, with no technical changes.

**National foreword**

This South African standard was approved by National Committee SABS TC 065, *Explosion prevention*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This SANS edition is technically identical to the first SABS edition (SABS IEC 60079-16:1990).

**Reaffirmed and reprinted in July 2013.  
This document will be reviewed every five years  
and be reaffirmed, amended, revised or withdrawn.**

**RAPPORT  
TECHNIQUE  
TECHNICAL  
REPORT**

**CEI  
IEC**

**79-16**

Première édition  
First edition  
1990-04

---

---

**Matériel électrique pour atmosphères explosives  
gazeuses**

**Seizième partie:**

Ventilation artificielle pour la protection des  
bâtiments pour analyseur(s)

**Electrical apparatus for explosive gas  
atmospheres**

**Part 16:**

Artificial ventilation for the protection of  
analyzer(s) houses

© CEI 1990 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni  
utilisée sous quelque forme que ce soit et par aucun procédé,  
électronique ou mécanique, y compris la photocopie et les  
microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized  
in any form or by any means, electronic or mechanical,  
including photocopying and microfilm, without permission  
in writing from the publisher

Bureau central de la Commission Electrotechnique Internationale 3, rue de Varembe Genève Suisse

---

---



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**S**

● Pour prix, voir catalogue en vigueur  
For price, see current catalogue

CONTENTS

	Page
FOREWORD .....	5
PREFACE .....	5
 <b>Clause</b>	
1. Scope .....	9
2. Definitions .....	9
3. General considerations .....	11
4. Construction requirements for the building .....	17
5. Construction requirements for ventilation systems .....	19
6. Safeguarding system .....	23
7. Verification and tests .....	25
8. Marking and records .....	27
APPENDIX A - Examples of ventilation arrangements for analyzer(s) houses .....	31
APPENDIX B - Example of an arrangement for a forced ventilation system .....	40
APPENDIX C - Example of an arrangement for an induced (exhaust) ventilation system .....	41

---

INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES

Part 16: Artificial ventilation for the protection  
of analyzer(s) houses

---

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE

This report has been prepared by Sub-Committee 31D: Pressurization and associated techniques, of IEC Technical Committee No. 31: Electrical apparatus for explosive atmospheres.

It forms Part 16 of a series of publications dealing with electrical apparatus for use in explosive gas atmospheres.

The following parts of IEC Publication 79: Electrical apparatus for explosive gas atmospheres, have already been published:

- General requirements (Publication 79-0 (1983)).
- Construction and test of flameproof enclosures of electrical apparatus (Publication 79-1 (1971)).
- Appendix D: Method of test for ascertainment of maximum experimental safe gap (Publication 79-1A (1975)).
- Electrical apparatus - type of protection "p" (Publication 79-2 (1983)).
- Spark test apparatus for intrinsically-safe circuits (Publication 79-3 (1972)).
- Method of test for ignition temperature (Publications 79-4 (1975) and 79-4A (1970)).