

Industrial-process control — Safety of analyser houses

The European Standard EN 61285:1994 has the status of a
British Standard

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee GEL/65, Measurement and control, to Subcommittee GEL/65/4, Process instruments for gas and liquid analysis, upon which the following bodies were represented:

- Department of Trade and Industry (National Physical Laboratory)
- Electricity Association
- Engineering Equipment and Materials Users' Association
- GAMBICA (BEAMA Ltd.)

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 July 1995

© BSI 12-1999

The following BSI references relate to the work on this standard:
Committee reference GEL/65/4
Draft for comment 92/22556 DC

ISBN 0 580 24176 9

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Foreword	2
Text of EN 61285	5
List of references	Inside back cover

National foreword

This British Standard has been prepared by Subcommittee GEL/65/4 and is the English language version of EN 61285:1994 *Industrial-process control — Safety of analyser houses* published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 1285:1994 published by the International Electrotechnical Commission (IEC).

BS EN 61285:1995 incorporates the changes to the text detailed in the corrigendum October 1994 to IEC 1285:1994.

Cross-reference

Publication referred to	Corresponding British Standard
IEC 79-10:1986	BS 5345 <i>Code of practice for selection, installation and maintenance of electrical apparatus for use in potentially explosive atmospheres (other than mining applications or explosive processing and manufacture)</i> Part 2:1983 <i>Classification of hazardous areas</i>

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

ICS 25.040.40

Descriptors: Industrial process, gas analyser, liquid mixtures analyser, analyser houses, safety of analyser houses

English version

Industrial-process control Safety of analyser houses

(IEC 1285:1994 + corrigendum 1994)

Commande des processus industriels —
Sécurité des bâtiments pour analyseurs
(CEI 1285:1994 + Corrigendum 1994)

Prozeßautomatisierung Sicherheit von
Analysengeräteräumen
(IEC 1285:1994 + Corrigendum 1994)

This European Standard was approved by CENELEC on 1994-10-04. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

© 1994 Copyright reserved to CENELEC members

Foreword

The text of document 65D(CO)4, as prepared by Subcommittee 65D, Analysing equipment, of IEC Technical Committee 65, Industrial-process measurement and control, was submitted to the IEC-CENELEC parallel vote in June 1994.

The text of the International Standard and its corrigendum was approved by CENELEC as EN 61285 on 4 October 1994.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1995-10-01
- latest date of withdrawal of conflicting national standards (dow) 1995-10-01

For products which have complied with the relevant national standard before 1995-10-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-10-01.

Annexes designated “normative” are part of the body of the standard. Annexes designated “informative” are given only for information. In this standard, Annex A and Annex ZA are normative and Annex B is informative.

Contents

	Page
Foreword	2
Introduction	5
1 Scope	5
2 Normative references	5
3 Definitions	5
4 Location of analyser houses (AH) and connection within the process plant areas	6
4.1 Response time	6
4.2 Utilities	6
4.3 Safety	6
4.4 Access	6
5 Design, construction and layout of analyser houses (AH)	6
5.1 Introduction	6
5.2 Scope	6
5.3 Dimensions and layout	6
5.4 Structural requirements	7
5.4.1 Walls	7
5.4.2 Floors and foundation	7
5.4.3 Doors	7
5.4.4 Windows	7
5.4.5 Roof	7
5.5 Equipment	7
5.5.1 Lighting	7
5.5.2 Communications	7
5.5.3 Piping and valves	7
5.5.4 Utilities	7
5.5.5 Fire extinguishers	8
5.5.6 Ventilation	8
5.6 Labelling/instructions/documentation	8
6 Explosion protection of analyser houses (AH)	8
6.1 Scope	8
6.2 Definitions	9
6.2.3 Explosive gas atmosphere	9
6.2.4 Hazardous area (see IEC 79-10)	9
6.3 General requirements	9
6.4 Protection of analyser houses (AH) against explosion hazards by means of artificial ventilation	9
6.4.1 Classification	9
6.4.2 Requirements for analyser houses subject to external explosion hazards	9

	Page
6.4.3 Requirements for analyser houses subject to internal explosion hazards due to flammable gases or vapours	9
6.4.4 Requirements for analyser houses subject to internal explosion hazards due to flammable liquids	10
6.4.5 Requirements for analyser houses subject to combinations of external hazards, internal explosion hazards due to flammable gases and vapours, and flammable liquids	11
6.5 Protection of analyser houses from explosion hazards by means of natural ventilation	11
6.5.1 General	11
6.5.2 Ventilation requirements	11
6.5.3 Heating requirements	11
6.5.4 Gas detectors	11
7 Measures to prevent health hazards to personnel in analyser houses (AH)	12
7.1 Introduction	12
7.2 Scope	12
7.3 Definitions	12
7.3.1 Toxic material	12
7.3.2 Safety back-up	12
7.4 General	12
7.5 Safety measures	12
7.6 External hazards	13
7.7 Additional measures for abnormal working conditions	13
7.8 Labelling/instructions/documentation	13
Annex A (normative) Leakage risk of modules in the AH	15
Annex B (informative) Bibliography	16
Annex ZA (normative) Other international publications quoted in this standard with the standard with the references of the relevant European publications	17
Table A.1 — Module evaluation	16

