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National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

Sales
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PRESSURE REGULATORS FOR USE WITH MEDICAL GASES - PART 2: MANIFOLD AND LINE PRESSURE REGULATORS

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English version

Pressure regulators for use with medical gases - Part 2: Manifold and line pressure regulators

Détendeurs pour l'utilisation avec les gaz médicaux - Partie 2: Détendeurs de rampes et de canalisations

Druckminderer zur Verwendung mit medizinischen Gasen - Teil 2: Hauptstellendruckregler und Leitungsdruckminderer

This European Standard was approved by CEN on 2 October 1998.

CEN 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 CEN 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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 215 "Respiratory and anaesthetic equipment", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

EN 738 consists of the following parts under the general title "*Pressure regulators for use with medical gases*":

Part 1: *Pressure regulators and pressure regulators with flow-metering devices.*

Part 2: *Manifold and line pressure regulators.*

Part 3: *Pressure regulators integrated with cylinder valves.*

Part 4: *Low-pressure regulators intended for incorporation into medical equipment.*

For special national conditions see annex A.

Annex A forms a normative part of this European Standard. Annexes B, C, D and ZA are given for information only.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Manifold pressure regulators are used to reduce the high cylinder pressure to a lower pressure suitable for the supply of medical gas pipeline systems.

Line pressure regulators are used to reduce the pressure supplied by manifold pressure regulators or by cryogenic vessels (complete with control and monitoring equipment) to the lower pressure available at the terminal units of medical gas pipeline systems which is suitable for use with medical equipment or for delivery of gas directly to a patient.

These functions cover a wide range of inlet and outlet pressures and flows which require specific design characteristics.

It is important that the operating characteristics of manifold and line pressure regulators are specified and tested in a defined manner.

This European Standard specifies the provision of information for:

- installation and testing;
- inspection, maintenance and the frequency of such activities.

Testing after installation is critical to patient safety and it is essential that manifold and line pressure regulators are not used until full testing in accordance with EN 737-3 has been completed.

This European Standard pays particular attention to:

- suitability of materials
- safety (mechanical strength, safe relief of excess pressure and resistance to ignition)
- cleanliness
- testing
- identification
- information supplied

Clauses and sub clauses marked with **R** after their numbers have corresponding rationales contained in annex D.