

Diving accessories — Buoyancy compensators — Functional and safety requirements, test methods

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British Standard

ICS 97.220.40

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Accessoires de plongée — Bouées d'équilibrage —
Exigences fonctionnelles et de sécurité, méthodes
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Tauch-Zubehör — Tariermittel —
Funktionelle und sicherheitstechnische
Anforderungen, Prüfverfahren

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 136, Sports, playground and other recreational equipment, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 1998, and conflicting national standards shall be withdrawn at the latest by May 1998.

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

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).

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1 Scope

This standard specifies functional, safety requirements and test methods applicable to inflatable type buoyancy compensating devices intended to provide divers with a means for controlling buoyancy.

This standard is not applicable to other kinds of personal equipment such as life preservers, personal flotation or rescue devices including combined buoyancy and rescue devices.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 250	<i>Respiratory equipment — Open-circuit self-contained compressed air diving apparatus — Requirements, testing, marking</i>
SS 019102*)	<i>Colour atlas NCS Natural Colour System</i>
IEC 50 (845) : 1987	<i>International Electrotechnical Vocabulary; Chapter 845: Lighting</i>

3 Definitions

For the purposes of this standard, the following definitions apply.

3.1 buoyancy compensator; BC

Inflatable type device that provides the diver with a means for controlling buoyancy.

3.2 buoyancy

The upward force exerted upon the immersed volume of a body.

3.3 maximum buoyancy

The maximum lifting force of a BC as determined in accordance with 5.4 of this standard.

3.4 SCUBA

Acronym for self contained underwater breathing apparatus, e.g. as described in EN 250.

3.5 oral inflation device

A device that permits inflation of the BC by mouth.

3.6 mechanical inflation device

A device to inflate the BC with breathable gas mixture from the SCUBA or an independent source.

3.7 manual deflation device

A manually operated device that permits deflation of the BC.

3.8 automatic pressure relief device

A device that automatically prevents overpressurisation possibly harmful to the BC.

3.9 harness

The means by which the BC is secured to the user's body.

3.10 fixture

The means by which the SCUBA cylinder(s) is (are) fixed to the BC.

3.11 auxiliary inflation device

An inflation device which is actuated manually to effect a rapid increase in buoyancy independent of the supply of breathable gas mixture from the SCUBA.

3.12 cylinder

Container for breathable gas mixture under high pressure.

3.13 cartridge

A non-reusable container for breathable gas mixture which is opened not by a valve but by actuating a mechanism which allows the contents of the cartridge to transfer fully into the BC.

3.14 breathing mixture

Air or a gas mixture indicated by the manufacturer providing an oxygen partial pressure higher than 0,16 bar and having a percentage of oxygen not higher than 40 % by volume.

3.15 rated intermediate pressure

The maximum rated intermediate pressure as indicated in the instructions for use of the BC as maximum working pressure for the mechanical inflator.

4 Requirements

4.1 General

When tested in accordance with 5.7 and 5.11, the BC shall not give evidence of any risk of injury of the diver, nor shall it impair the operability of any of its component or that of a SCUBA.

The BC shall be equipped with several devices permitting respectively oral and mechanical inflation, manual deflation, automatic pressure relief, drainage of entrapped water, and with a harness for securing it to the body. It can be fixed to the cylinder(s) of a SCUBA or used as the relevant body harness, can be equipped with hoses for oral inflation or for deflation, with auxiliary inflation devices, or with visual means of signalization of the diver at the surface.

*) Available from Standardiseringskommissionen i Sverige (SIS) PO Box 3295 Tegnérsgatan S-10266 Stockholm