
**Ships and marine technology —
Pneumatic quick-closing control
devices**

*Navires et technologie maritime — Dispositifs de commande
pneumatiques à fermeture rapide*



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Design	2
4.1 System composition	2
4.2 Requirements	4
4.3 Materials	5
4.4 Classifications and types	5
5 Performance	6
5.1 Strength	6
5.2 Tightness	6
5.3 Operational performance	6
5.4 Air fluctuation	6
5.5 Electrical properties	6
5.5.1 Power supply fluctuation	6
5.5.2 Power supply fault	7
5.5.3 Insulation resistance	7
5.5.4 Voltage withstanding	7
5.6 Environmental adaptability	7
5.6.1 Dry heat and cold	7
5.6.2 Damp heat	7
5.6.3 Inclination and swinging	8
5.6.4 Vibration	8
5.6.5 Salt mist	8
5.6.6 IP code	8
5.7 Electromagnetic compatibility	8
6 Test and inspection	8
6.1 Strength test	8
6.2 Leakage test	8
6.3 Operational performance	9
6.4 Air supply fluctuation	9
6.5 Power supply fluctuation	9
6.6 Power supply fault	9
6.7 Insulation resistance	9
6.8 Voltage withstanding	9
6.9 Dry heat	9
6.10 Cold	9
6.11 Cyclic damp heat	9
6.12 Inclination and swinging	10
6.13 Vibration	10
6.14 Salt mist	10
6.15 IP code	10
6.16 Electromagnetic compatibility	10
7 Marking, packaging, handling and storage	10
7.1 Marking	10
7.2 Packaging	10
7.3 Handling and storage	11
Bibliography	12

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC8, *Ships and marine technology*, Subcommittee SC3, *Piping and machinery*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

A pneumatic quick-closing control device is a remote operation system used to control quick-closing valves, fire dampers and shutters of marine quick-closing systems. It plays a vital role in protecting the safety of ships and offshore facilities, and reducing fire losses. It also helps to ensure compliance with the requirements specified in the applicable sections of *The International Convention for the Safety of Life at Sea* (SOLAS)^[1].

Ships and marine technology — Pneumatic quick-closing control devices

1 Scope

This document specifies the terms and definitions, design, system components, classification, technical requirements and test methods of marine pneumatic quick-closing control devices. It also addresses system pressures, automatic controls, alarms, signal feedback, performance test methods, safety, packaging and handling of pneumatic quick-closing control devices.

This document applies to the design, manufacture and acceptance of pneumatic quick-closing control devices.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 780, *Packaging — Distribution packaging — Graphical symbols for handling and storage of packages*

GB/T 13306, *Plates*

IEC 60068-2-1, *Environmental testing — Part 2-1: Tests — Test A: Cold*

IEC 60068-2-2, *Environmental testing — Part 2-2: Tests — Test B: Dry heat*

IEC 60068-2-30, *Environmental testing — Part 2-30: Tests — Test Db: Damp heat cyclic*

IEC 60068-2-6, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal)*

IEC 60068-2-11, *Basic environmental testing procedures — Part 2-11: Tests — Test Ka: Salt mist*

IEC 61000-4-5, *Electromagnetic compatibility — Testing and measurement techniques — Surge immunity test*

IEC 60529, *Degrees of protection provided by enclosures (IP code)*

IEC 60533, *Electrical and electronic installations in ships — Electromagnetic compatibility (EMC) – Ships with a metallic hull*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

pneumatic quick-closing control device

PQCD

system installation that realizes remote fast operation, status display and alarms via remote control to devices such as pneumatic quick-closing valves, pneumatic fire dampers and pneumatic shutters