INTERNATIONAL STANDARD

ISO 24225

First edition
2022-06

Ships and marine technology — Pneumatic quick-closing control devices

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

Reference number
ISO 24225:2022(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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Foreword

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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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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