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PEOPLE'S REPUBLIC OF CHINA**

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Replacing GB/T 9917.1-2002

Camera lens - Part 1: Zoom lens

照相镜头 第1部分：变焦距镜头

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document is Part 1 of GB/T 9917 "Photographic Lenses". GB/T 9917 has already published the following parts.

- Part 1: Zoom Lenses;
- Part 2: Fixed focal length lenses.

This document supersedes GB/T 9917.1-2002 "Photographic Lenses - Part 1: Zoom Lenses" and is consistent with GB/T 9917.1-2002.

Aside from structural adjustments and editorial changes, the main technical changes are as follows.

- The scope of application has been changed (see Chapter 1, Chapter 1 of the 2002 edition);
- The term and definition of "optical distortion" have been added (see 3.1.8);
- The term and definition of "macro photography resolution" have been removed (see 3.1.5 in the 2002 edition);
- The F-number error index level has been removed (see section 5.2 of the 2002 edition);
- Added technical requirements and test methods for image plane brightness uniformity during imaging (see 5.4 and 6.4);
- Resolution technical requirements and test methods have been changed (see 5.6 and 6.6, 5.4 in the 2002 edition);
- The technical requirements for the lens color contribution index have been changed (see 5.7, 5.6 in the 2002 edition);
- Added technical requirements and test methods for optical distortion (see 5.9 and 6.9);
- The positioning intercept technical requirements have been changed (see 5.11, 5.9 in the 2002 edition);
- The technical requirements for operating force and load-bearing strength have been revised (see 5.12, 5.10 in the 2002 edition);
- Added requirements and test methods for optical image stabilization (see 5.13 and 6.13);
- The distortion test method has been changed (see 6.8, 6.7 of the 2002 edition, and Appendix A);
- The inspection rules have been changed (see Chapter 7, Appendix A of the 2002 edition).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Photographic Machinery (SAC/TC107).

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The release history of this document and the document it replaces is as follows.

- First published in 1988 as GB/T 9917-1988;
- First revised in 2002, replacing the zoom lens section of GB/T 9917-1988, with the standard number adjusted to GB/T 9917.1-2002;
- This is the second revision.

Introduction

As the core component for image capture, the quality and performance of a camera lens directly affect the imaging effect and quality of a photographic work.

GB/T 9917 "Photographic Lenses" is not only a technical standard for regulating product manufacturing, but also a crucial cornerstone for promoting the healthy development of the industry.

By standardizing technical specifications and quality requirements, we ensure that lens products of different brands and types have measurable quality benchmarks, thus protecting consumer rights.

It protects consumer rights; at the same time, it points the way for enterprise innovation, prompting the industry to continuously adapt to the development trends of new technologies and processes, and improve overall technology level.

GB/T 9917 is proposed to be divided into two parts.

- Part 1: Zoom Lenses. The purpose is to define product specifications for zoom camera lenses.
- Part 2: Fixed Focal Length Lenses. The purpose is to define product specifications for fixed focal length photographic lenses.

A zoom lens, as opposed to a fixed-focus lens, is a lens that allows for continuous focal length adjustment. It consists of multiple groups of positive and negative lenses.

It includes both fixed and movable lens groups. With the continuous development of photographic technology, zoom lenses are increasingly used in the field of photography. widely.

GB/T 9917.1-2002 has been in effect for over twenty years, during which time photographic technology has undergone tremendous changes, transitioning from silver halide imaging to digital imaging.