

**BUREAU OF INDIAN STANDARDS**

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**Doc No.: PGD 39 (23360)**

**IS 5920 (Part 1) : XXXX**

**ISO 10110-1 : 2019**

**September 2023**

*भारतीय मानक मसौदा*

**प्रकाशिकी और फोटोनिक्स – प्रकाशीय तत्वों और प्रणालियों के लिए आरेखण तैयार करना**

**भाग 1 सामान्य**

*( IS 5920 का पहला पुनरीक्षण )*

*Draft Indian Standard*

**Optics and Photonics — Preparation of Drawings for Optical Elements and Systems**

**Part 1 General**

*( First Revision of IS 5920 )*

ICS 01.100.20; 37.020

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Optics and Photonics, PGD 39

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**NATIONAL FOREWORD**

This Indian Standard (Part 1) (First Revision) which is identical with ISO 10110 - 1 : 2019 ‘Optics and photonics — Preparation of drawings for optical elements and systems’ issued by the International Organization for Standardization (ISO) will be adopted by the Bureau of Indian Standards on the recommendation of the Optics and Photonics Sectional Committee and approval of the Production and General Engineering Division Council.

This document standardizes drawing indication for optical element and system. This document also specifies the presentation in drawings of the characteristics, including the tolerances of optical elements and systems.

This standard supersedes the originally published Indian Standard IS 5920 : 1970 ‘Recommendations for the preparation of drawings for optical elements and systems’.

This standard has been published in thirteen parts. The other parts in this series are:

- Part 2 Surface form tolerances
- Part 3 Centring tolerances
- Part 4 Surface imperfections
- Part 5 Surface texture

- Part 6 Surface treatment and coating
- Part 7 Non-toleranced data
- Part 8 Aspheric surfaces
- Part 9 Wavefront deformation tolerance
- Part 10 Diffractive surfaces
- Part 11 Laser irradiation damage threshold
- Part 12 Stress birefringence, bubbles and inclusions, homogeneity, and striae
- Part 13 General description of surfaces and components

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current-practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 128-24 Technical drawings — General principles of presentation — Part 24: Lines on mechanical engineering drawings	IS 10714 (Part 24) : 2018/ISO 128-24 : 2014 Technical drawings — General principles of presentation Part 24 Lines on mechanical engineering drawings	Identical
ISO 10110-6 Optics and photonics — Preparation of drawings for optical elements and systems — Part 6: Centring tolerances	IS 5920 (Part 3) : XXXX/ISO 10110-6 : 2015 Optics and photonics — Preparation of drawings for optical elements and systems Part 6 Centring tolerances	Identical
ISO 10110-12 Optics and photonics — Preparation of drawings for optical elements and systems — Part 12: Aspheric surfaces	IS 5920 (Part 8) : XXXX/ISO 10110-12 : 2019 Optics and photonics — Preparation of drawings for optical elements and systems Part 12 Aspheric surfaces	Identical
ISO 10110-18 Optics and photonics — Preparation of drawings for optical elements and systems — Part 18: Stress birefringence, bubbles and	IS 5920 (Part 8) : XXXX/ISO 10110-18 Optics and photonics — Preparation of drawings for optical elements and systems — Part 18: Stress birefringence, bubbles and inclusions, homogeneity, and striae	Identical

inclusions, homogeneity, and striae		
ISO 10110-19 Optics and photonics — Preparation of drawings for optical elements and systems — Part 19: General description of surfaces and components	IS 5920 (Part 13) : XXXX/ISO 10110-19 Optics and photonics — Preparation of drawings for optical elements and systems Part 19: General description of surfaces and components	Identical
ISO 80000-1 Quantities and units — Part 1: General	IS/ISO 80000-1 : 2009 Quantities and units: Part 1 general	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard.

*International Standard*

*Title*

ISO 12123

Optics and photonics — Specification of raw optical glass

**NOTE:** The technical content of draft standard is not available on website. For details, please refer

to ISO 10110-1 : 2023 or contact:

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