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INTERNATIONAL STANDARD

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Optics and optical instruments — Medical endoscopes and endoscopic accessories —

Part 3:

Determination of field of view and direction of view of endoscopes with optics

Optique et instruments d'optique — Endoscopes médicaux et leurs accessoires —

Partie 3: Détermination du champ d'observation et de la direction d'observation des endoscopes optiques

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ISO 8600-3:1997(E)

Foreword

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International Standard ISO 8600-3 was prepared by Technical Committee ISO/TC 172, Optics and optical instruments, Subcommittee SC 5, Microscopes and endoscopes.

ISO 8600 consists of the following parts, under the general title Optics and optical instruments — Medical endoscopes and endoscopic accessories:

- Part 1: General requirements
- --- Part 2: Particular requirements for rigid bronchoscopes
- Part 3: Determination of field of view and direction of view of endoscopes with optics
- Part 4: Determination of maximum width of insertion portion

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Optics and optical instruments — Medical endoscopes and endoscopic accessories —

Part 3:

Determination of field of view and direction of view of endoscopes with optics

1 Scope

This part of ISO 8600 specifies requirements and recommends test methods for measuring the field of view and direction of view of endoscopes.

2 Requirements

2.1 Measuring accuracy (field of view)

The minimum accuracy of the test method used to measure the field of view shall be:

- ± 5 % of the reading for rigid endoscopes;
- ± 10 % of the reading for flexible endoscopes.

2.2 Measuring accuracy (direction of view)

The minimum accuracy of the test method used to measure the direction of view shall be:

- ± 3° for rigid endoscopes;
- ± 10° for flexible endoscopes.

3 Apparatus

- 3.1 Optical bench, or equivalent device, to support the optical endoscope being tested and allowing adjustment of the central axis of the field of view to the centre of the target to measure the field of view at a distance of 50 mm between the distal window surface of the endoscope and the centre of the graduated scale situated at right angles to the centreline.
- 3.2 Target holder and protractor, graduated in degrees (see figure 1).