INTERNATIONAL STANDARD

**ISO 1223**

Third edition
1993-05-15

# Cinematography — Picture areas for motion-picture films and slides for television — Position and dimensions



*Cinématographie — Champs d'image pour films et diapositives destinés à la télévision — Emplacements et dimensions*



Reference number
ISO 1223:1993(E)

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.



International Standard ISO 1223 was prepared by Technical Committee ISO/TC 36, *Cinematography*.



This third edition cancels and replaces the second edition (ISO 1223:1985), of which it constitutes a technical revision.

Annex A of this International Standard is for information only.



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Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

# Cinematography — Picture areas for motion-picture films and slides for television — Position and dimensions

## 1 Scope

This International Standard defines those areas of the images on 35 mm, 16 mm and 8 mm Type S motion-picture films and on 5 cm × 5 cm slides, which are transmitted by television, together with the action and safe title areas within which any pictorial or written matter may be expected to be received on a domestic television receiver. It applies to non-anamorphic images of nominal 4:3 ratio.



## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 466:1976, *Cinematography — Image produced by 16 mm motion-picture camera aperture — Position and dimensions.*

ISO 1755:1987, *Photography — Projector slides — Dimensions.*

ISO 2906:1984, *Cinematography — Image area produced by camera aperture on 35 mm motion-picture film — Position and dimensions.*

ISO 3645:1984, *Cinematography — Image area produced by 8 mm Type S motion-picture camera aperture and maximum projectable image area — Positions and dimensions.*

## 3 Definitions

For the purposes of this International Standard, the following definitions apply.

**3.1 transmitted area:** The area of the image on motion-picture film or slide which is transmitted from the television station.

NOTE 1 It is recognized that the actual image area that is viewed will be smaller than the transmitted area. It is, however, intended that the area displayed by the receiver matches as closely as possible the transmitted area.

**3.2 action area:** The area on the motion-picture film or slide within which pictorial matter may be composed, and which may reasonably be expected to be reproduced on a domestic receiver.

NOTE 2 In slides, the picture is composed so that the slide is used with the larger dimension of the action area horizontal.

**3.3 safe title area:** The area on the motion-picture film or slide within which all essential information, such as titles, should be composed and may reasonably be expected to be reproduced on a domestic receiver.

NOTE 3 In slides, the written matter is composed so that the slide is used with the larger dimension of the safe title area horizontal.

## 4 Dimensions

### 4.1 Transmitted area

The dimensions of the transmitted areas of the images on 35 mm, 16 mm and 8 mm Type S motion-picture films and on 5 cm × 5 cm slides are given in table 1 and illustrated in figure 1, figure 2, figure 3 and figure 4 respectively.

### 4.2 Action area

The dimensions of the action area on 35 mm, 16 mm and 8 mm Type S motion-picture films and on 5 cm × 5 cm slides are given in table 1 and illustrated in figure 1, figure 2, figure 3 and figure 4 respectively.

NOTE 4 The dimensions of the action area were calculated by multiplying the transmitted area width by 0,675, 0,900 and 0,180, for the height, width and corner radius respectively.

### 4.3 Safe title area

The dimensions of the safe title area on 35 mm, 16 mm and 8 mm Type S motion-picture films and on 5 cm × 5 cm slides are given in table 1 and illustrated in figure 1, figure 2, figure 3 and figure 4 respectively.

NOTE 5 The dimensions of the safe title area were calculated by multiplying the transmitted area width by 0,600, 0,800 and 0,160, for the height, width and corner radius respectively.

## 5 Positions

**5.1** On 35 mm, 16 mm and 8 mm Type S motion-picture films, the horizontal and vertical centrelines of the transmitted area, action area and safe title area coincide with the corresponding centrelines of the 35 mm, 16 mm and 8 mm Type S camera image as defined in ISO 2906, ISO 466 and ISO 3635 respectively.

**5.2** On slides, the horizontal and vertical centrelines of the transmitted area, action area and safe title area coincide with the corresponding centrelines of a 5 cm × 5 cm slide, based on the dimensions given in ISO 1755.

**Table 1 — Dimensions**

Dimensions in millimetres

| Dimension | 35 mm film | 16 mm film | 8 mm Type S film | 5 cm × 5 cm slides |
|---|---|---|---|---|
| *A* | 15,10 ± 0,10 | 7,00 ± 0,05 | 3,90 ± 0,05 | 21,50 ± 0,20 |
| *B* | 20,12 ± 0,10 | 9,35 ± 0,05 | 5,20 ± 0,05 | 28,60 ± 0,20 |
| *C* ref. | 18,75 ± 0,05 | 7,98 ± 0,05 | 4,32 nom. | 25,2 ± 0,2 |
| *D* max. | 13,6 | 6,3 | 3,50 | 19,3 |
| *E* max. | 18,1 | 8,4 | 4,70 | 25,7 |
| *F* min. | 3,6 | 1,7 | 0,95 | 5,1 |
| *G* max. | 12,1 | 5,6 | 3,10 | 17,2 |
| *H* max. | 16,1 | 7,5 | 4,20 | 22,8 |
| *J* nom. | 3,2 | 1,5 | 0,85 | 4,6 |

NOTE — Dimensions in Imperial units are given in annex A. In some instances, the values of the metric dimensions are not exact conversions of the Imperial dimensions.

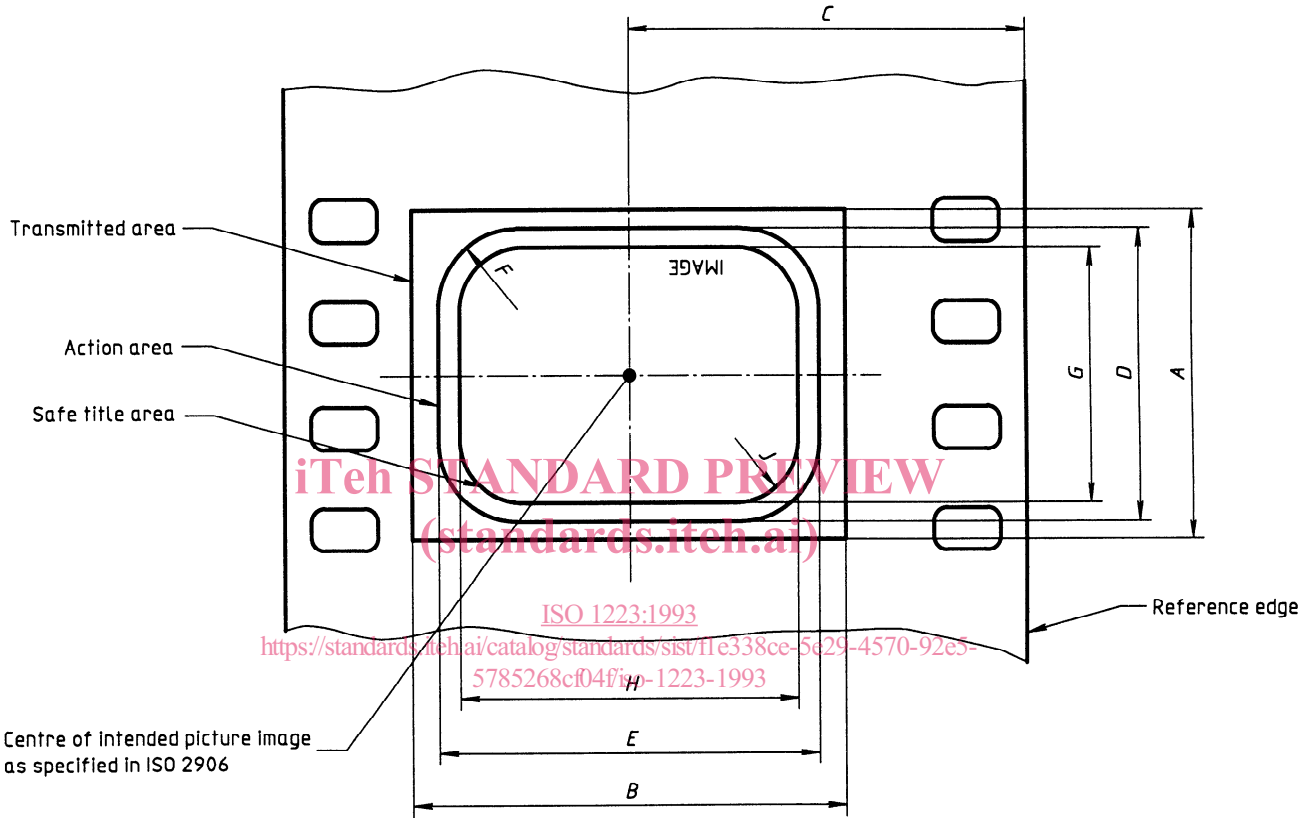




**Figure 1 — Image area on 35 mm motion-picture film for television**

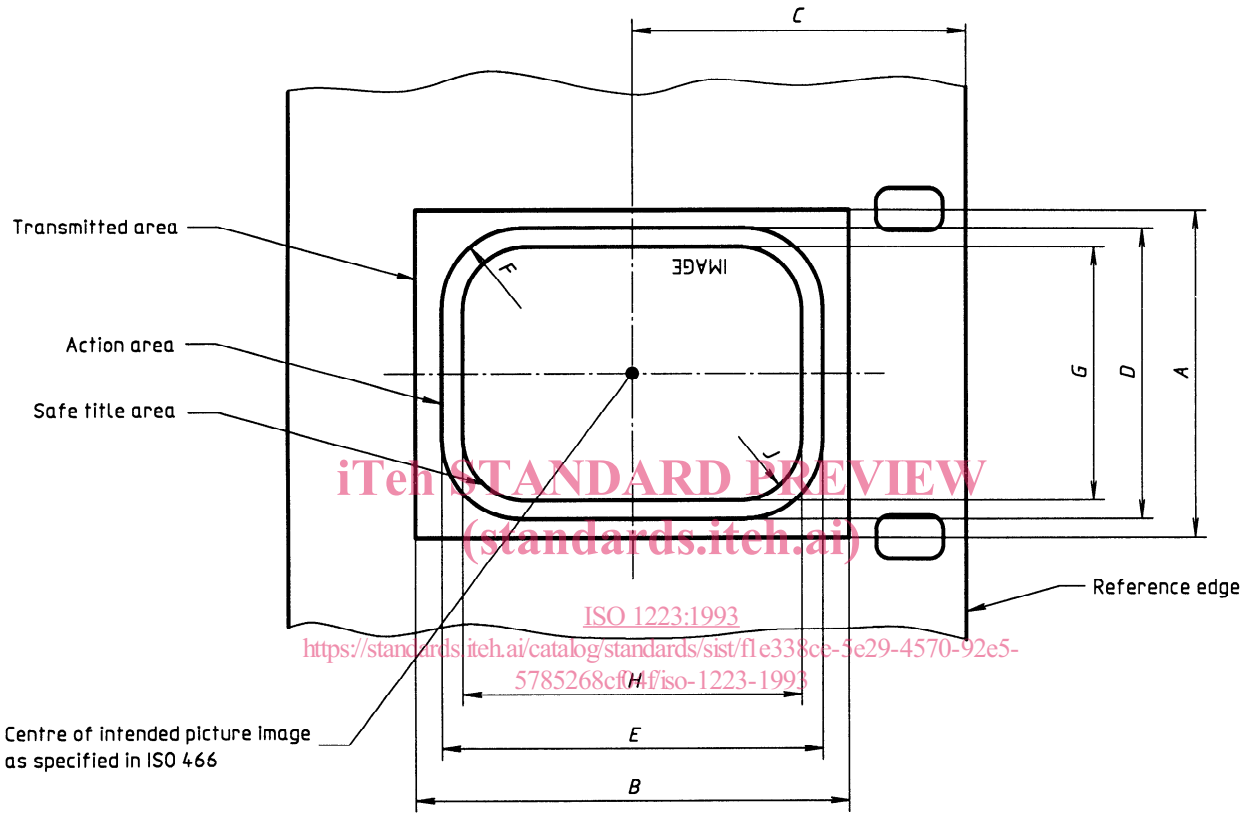




**Figure 2 — Image area on 16 mm motion-picture film for television**

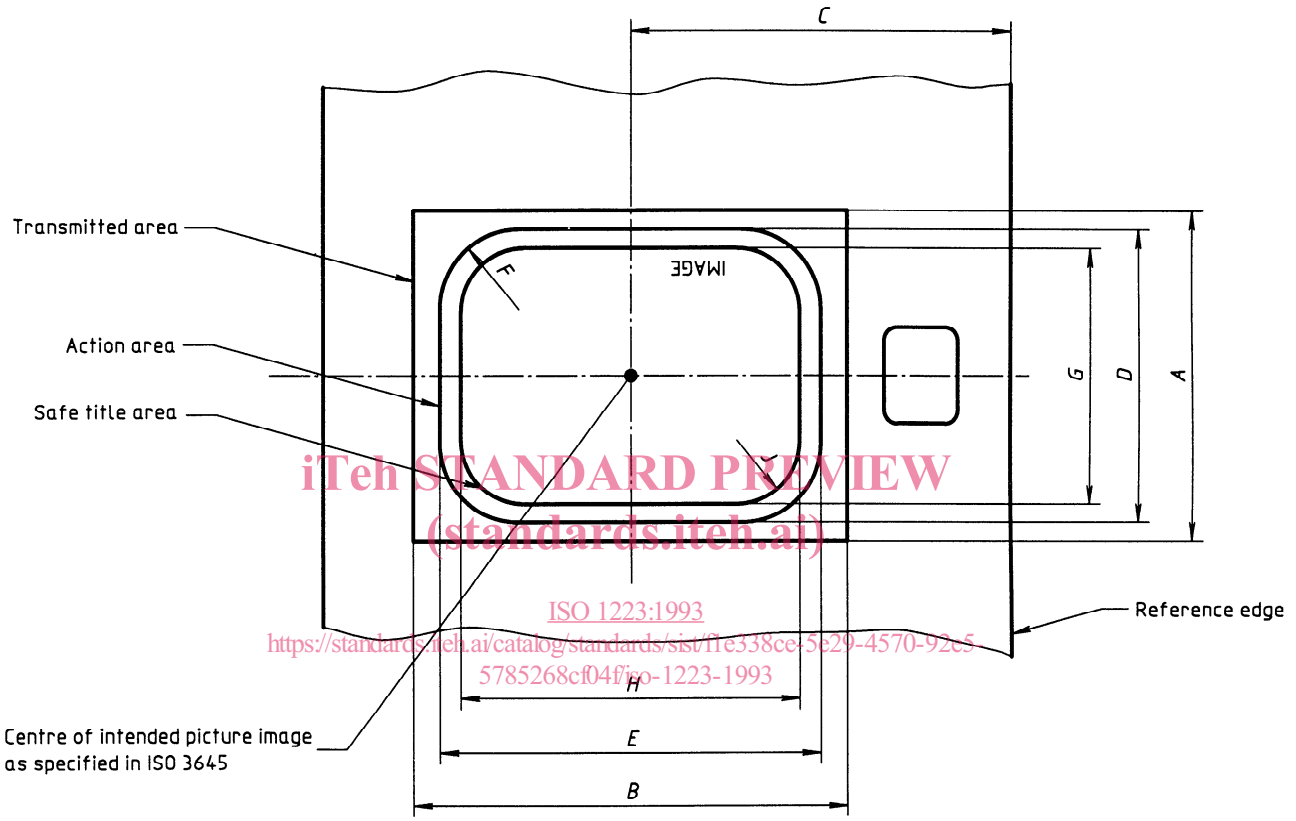




**Figure 3 — Image area on 8 mm Type S motion-picture film for television**

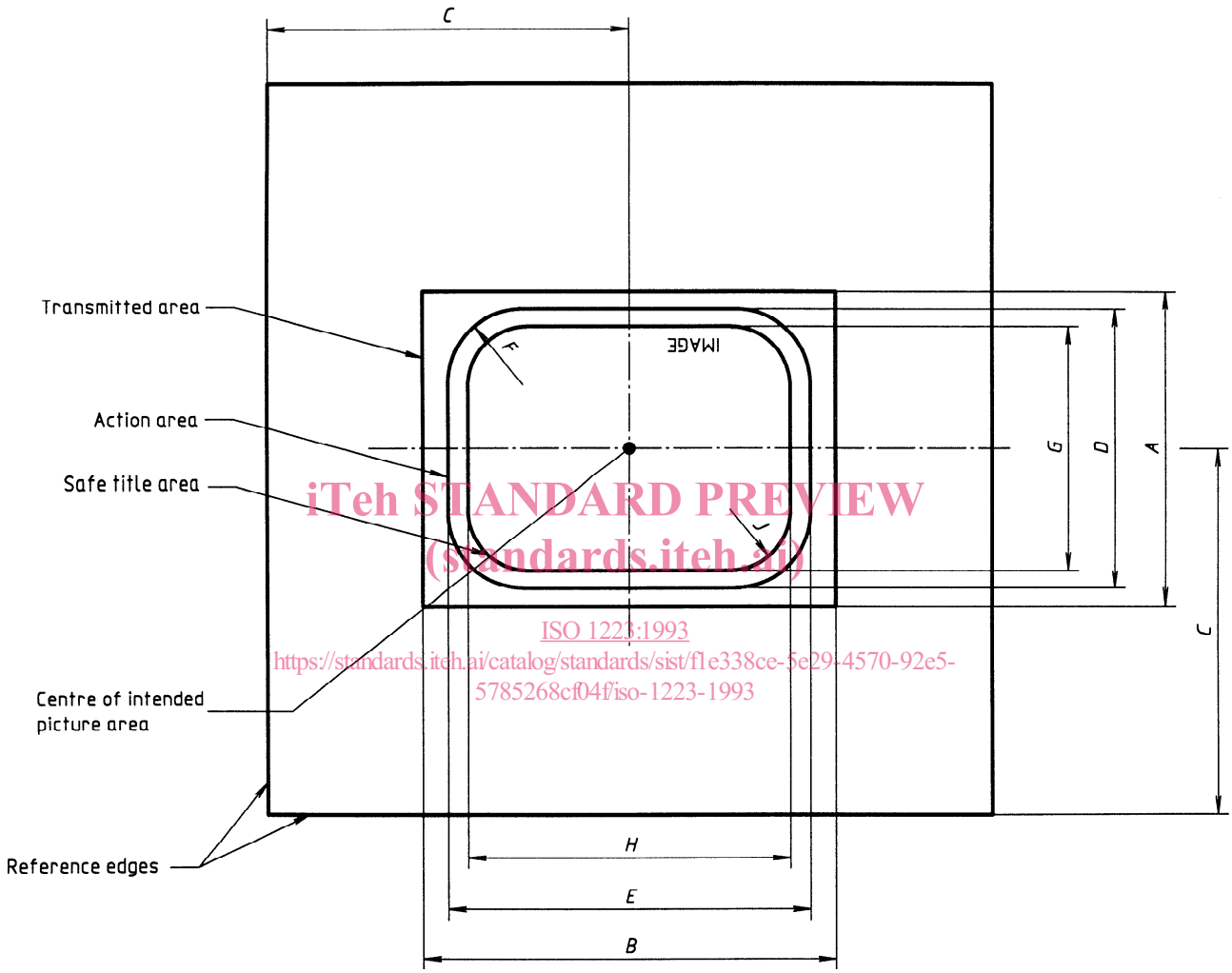




**Figure 4 — Image area on 5 cm × 5 cm (2 in × 2 in) slides for television**

# Annex A
(informative)

# Dimensions in Imperial units

**Table A.1 — Dimensions**

Dimensions in inches

| Dimension | 35 mm film | 16 mm film | 8 mm Type S film | 2 in × 2 in slides |
|---|---|---|---|---|
| *A* | 0,594 ± 0,004 | 0,276 ± 0,002 | 0,154 ± 0,002 | 0,846 ± 0,008 |
| *B* | 0,792 ± 0,004 | 0,368 ± 0,002 | 0,205 ± 0,002 | 1,126 ± 0,008 |
| *C* ref. | 0,738 ± 0,002 | 0,314 ± 0,002 | 0,170 nom. | 0,992 ± 0,008 |
| *D* max. | 0,546 | 0,25 | 0,138 | 0,78 |
| *E* max. | 0,71 | 0,33 | 0,185 | 1,01 |
| *F* min. | 0,1 | 0,1 | 0,037 | 0,2 |
| *G* max. | 0,48 | 0,22 | 0,122 | 0,68 |
| *H* max. | 0,63 | 0,29 | 0,166 | 0,898 |
| *J* nom. | 0,13 | 0,06 | 0,033 | 0,18 |