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# International Standard



# 4242

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Cinematography — Recording head gaps for two sound records on 16 mm magnetic film — Positions and width dimensions

*Cinématographie — Entrefers de têtes d'enregistrement pour enregistrement du son sur deux pistes sur film magnétique de 16 mm — Emplacement et largeur*

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(standards.iteh.ai)

[ISO 4242:1980](https://standards.iteh.ai/catalog/standards/sist/f27dcf19-aff6-4911-90fa-96c5b88efe96/iso-4242-1980)

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**Descriptors** : cinematography, motion picture film 16 mm, magnetic recording, sound recording, sound track, magnetic heads, dimensions, positioning, specifications.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4242 was developed by Technical Committee ISO/TC 36, *Cinematography*, and was circulated to the member bodies in May 1979.

It has been approved by the member bodies of the following countries :

Austria	Italy	Sweden
Belgium	Japan	United Kingdom
Canada	Libyan Arab Jamahiriya	USA
Czechoslovakia	Mexico	USSR
Denmark	Poland	Yugoslavia
France	South Africa, Rep. of	
Germany, F. R.	Spain	

No member body expressed disapproval of the document.

This International Standard cancels and replaces ISO Recommendations R 890-1968 and R 891-1968, of which it constitutes a technical revision.

# Cinematography — Recording head gaps for two sound records on 16 mm magnetic film — Positions and width dimensions

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## 1 Scope and field of application

This International Standard specifies the lateral positions and width dimensions of the recording heads for two magnetic sound records and a control track on 16 mm single perforated magnetic recording film.

It also specifies the reproducing velocity of the film travel.

## 2 References

ISO 69, *Cinematography — 16 mm motion-picture raw stock film — Cutting and perforating dimensions.*

ISO 1188, *Cinematography — Recording characteristics for magnetic sound record on 16 mm motion-picture film — Specifications.*

## 3 Location and width of magnetic head gaps

**3.1** The width dimensions and lateral positions of the magnetic head gaps shall be as shown in the figure and given in the table.

**3.2** The magnetic head gaps shall be physically in line at an angle of  $90^\circ \pm 5'$  to the direction of film travel.

## 4 Recorded characteristic

The recorded characteristic shall be in accordance with ISO 1188.

## 5 Velocity

**5.1** The sound records are intended for use at velocities of 24 perforations (approximately 18,3 cm or 7.2 in) per second or at 25 perforations (approximately 19,05 cm or 7.5 in) per second.

**5.2** The tolerances given in ISO 1188 (clause 3) permit a choice of operating conditions such that the recorded characteristic conforms to ISO 1188 even though the recording is intended for either 24 or 25 perforations per second, and the reproduction is conducted at the other velocity.

## 6 Track usage

**6.1** The centre track position shall preferably be used for single records. However, for international exchange, interchangeability is facilitated by placing identical information on both tracks.

**6.2** For recording stereo programmes, the centre track position shall be used for the left-hand channel.

**6.3** For recording two languages, the centre track shall be used for the primary language and the edge track position shall be used for the secondary language.

**6.4** The control track shall be used for recording other information and for address systems in analogue or digital form.

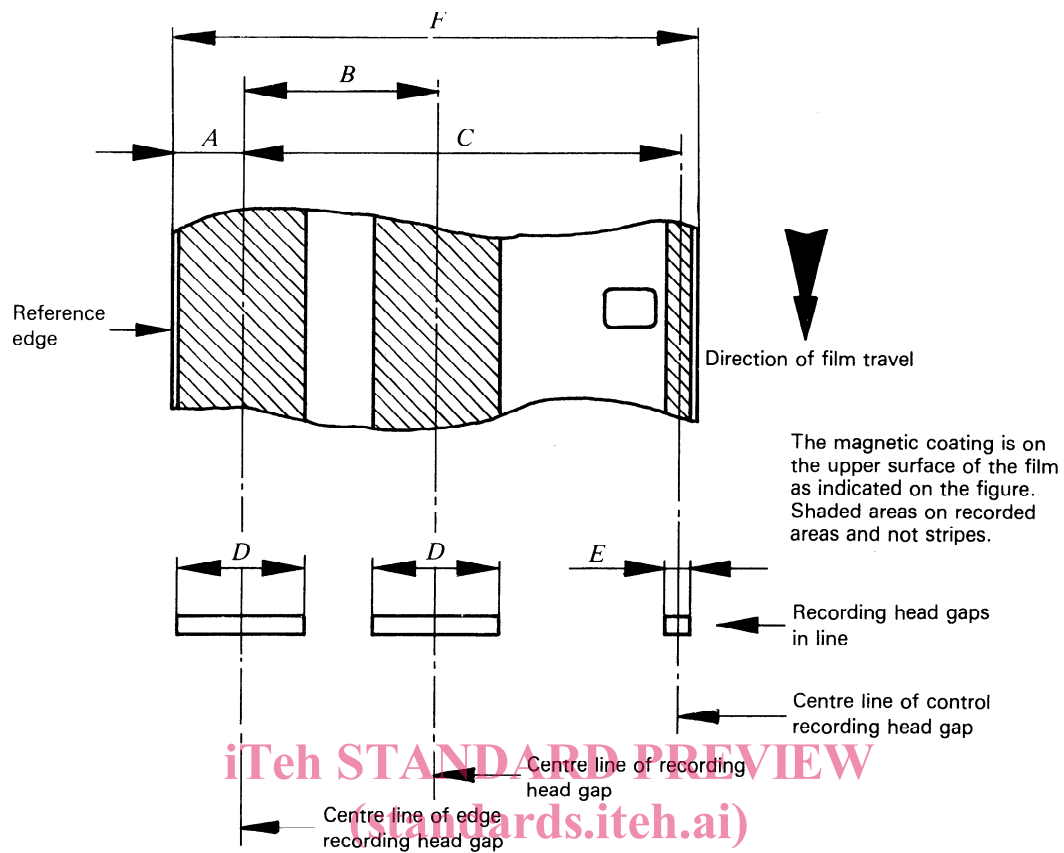


Figure — Magnetic sound records and head gaps  
<https://standards.iteh.ai/catalog/standards/sist/f27dcf19-aff6-4911-90fa-96c5b88efe96/iso-4242-1980>

Table — Dimensions of sound records and head gap widths

Dimension	mm	in
A	2,05 ± 0,05	0.081 ± 0.002
B	5,95 ± 0,05	0.234 ± 0.002
C <sup>1)</sup>	13,45 ± 0,05	0.529 ± 0.002
D <sup>2)</sup>	4,0 <sup>0</sup> - 0,1	0.157 <sup>0</sup> - 0.004
E	0,7 <sup>0</sup> - 0,1	0.028 <sup>0</sup> - 0.004
F (reference)	15,95	0.628

1) The inch dimension C deviates from the standard conversion practice to reflect the practices in those countries where that system is used.

2) To prevent the erase head overlapping the film edge, a dimension of 3,8<sup>0</sup><sub>- 0,1</sub> mm (0.150<sup>0</sup><sub>- 0.004</sub> in) is preferred in some countries.