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**Information processing — Data interchange on 90 mm
(3.5 in) flexible disk cartridges using modified
frequency modulation recording at 7 958 ftprad on
80 tracks on each side —**

Part 1 :
Dimensional, physical and magnetic characteristics

*Traitement de l'information — Échange de données sur cartouches à disquette de 90 mm
(3,5 in) utilisant un enregistrement à modulation de fréquence modifiée (MFM) à 7 958 ftprad
sur 80 pistes sur chaque face —*

Partie 1 : Caractéristiques dimensionnelles, physiques et magnétiques

Reference number
ISO 8860-1:1987 (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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8860-1 was prepared by Technical Committee ISO/TC 97, *Information processing systems*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Information processing — Data interchange on 90 mm (3.5 in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad on 80 tracks on each side —

Part 1 : Dimensional, physical and magnetic characteristics

0 Introduction

ISO 8860 specifies the characteristics of 90 mm (3.5 in) flexible disk cartridges recorded at 7 958 ftprad using modified frequency modulation (MFM) recording on 80 tracks on each side.

ISO 8860-2 specifies the track layout, the track format and the characteristics of the recorded signals.

ISO 8860-1 and ISO 8860-2, together with the labelling scheme specified in ISO 9293, provide for full data interchange between data processing systems.

1 Scope and field of application

This part of ISO 8860 specifies the dimensional, physical and magnetic characteristics of the cartridge, so as to provide physical interchangeability between data processing systems.

NOTE — Numeric values in the SI and/or Imperial measurements system in this part of ISO 8860 may have been rounded off and therefore are consistent with, but not exactly equal to, each other. Either system may be used, but the two should be neither intermixed nor reconverted. The original design was made using SI units.

2 Conformance

A 90 mm (3.5 in) flexible disk cartridge shall be in conformance with this part of ISO 8860 if it meets all mandatory requirements contained herein.

3 References

ISO 683-13, *Heat-treated steels, alloy steels and free-cutting steels* —
Part 13 : *Wrought stainless steels*.

ISO 8860-2, *Information processing — Data interchange on 90 mm (3.5 in) flexible disk cartridges using modified frequency modulation recording at 7 958 ftprad on 80 tracks on each side* —
Part 2 : *Track format*.

ISO 9293, *Information processing — Volume and file structure of flexible disk cartridges for information interchange*.

4 Definitions

For the purpose of this International Standard the following definitions apply.

4.1 recording disk : A flexible disk which accepts and retains, on the specified side or sides, magnetic signals intended for input/output and storage purposes.

4.2 hub : A centring and referencing device attached to the centre of the disk which allows torque to be transmitted to the disk. It ensures centring of the disk on the drive shaft in a unique angular position.

4.3 shutter : A device which uncovers the head windows upon insertion, and automatically covers them upon removal from the drive.

4.4 liner : Suitable material positioned between the case and the disk to provide cleaning action and protection from abrasion.

4.5 case : A protective enclosure including a shutter mechanism and a write-inhibit hole.

4.6 Master Standard Reference Flexible Disk Cartridge : A reference flexible disk cartridge selected as the standard for reference fields, signal amplitudes, resolution, peak shift and overwrite. Track 00 and track 79 on both sides are declared as reference tracks.

The reference tracks are calibrated at 600 r/min. The calibration is also valid at 300 r/min.

NOTE — This master standard has been established by the Physikalisch-Technische Bundesanstalt (PTB), Bundesallee 100, D-3300 Braunschweig, Germany, F.R.G.

4.7 Secondary Standard Reference Flexible Disk Cartridge : A flexible disk cartridge the performance of which is known and stated in relation to that of the Master Standard Reference Flexible Disk Cartridge.

NOTE — Secondary Standard Reference Flexible Disk Cartridges can be ordered from PTB Lab. 1.41 under Part Number RM 8860 as long as available. It is intended that these be used for calibrating further cartridges for use in routine calibration.