

**Implementation of
EN 29315:1992 and ISO 9315:1989**

Information processing systems — Interface between flexible disk cartridge drives and their host controllers

The European Standard EN 29315:1992 has the status of a
British Standard

UDC 681.327.8:681.327.634

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Information Systems Technology Standards Policy Committee (IST/-) to Technical Committee IST/6, upon which the following bodies were represented:

- British Computer Society
- British Telecommunications plc
- Department of Trade and Industry (IT Standards Unit)
- Digital Equipment Co. Ltd.
- H M Treasury (Central Computer and Telecommunications Agency)
- IBM (UK) Ltd.
- Information Systems Committee of the Universities Funding Council
- International Computers Ltd.
- Logica UK Ltd.
- Swift Project Consortium

This British Standard, having been prepared under the direction of the Information Systems Technology Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 31 January 1992

© BSI 04-2000

The following BSI references relate to the work on this standard:
Committee reference IST/6
Draft for comment 91/67770 DC

ISBN 0 580 20454 5

Amendments issued since publication

Amd. No.	Date	Comments
7668	April 1993	Indicated by a sideline in the margin

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Foreword	2
Foreword	iv
Text of ISO 9315	1

National foreword

This British Standard reproduces verbatim ISO 9315:1989 and implements it as the UK national standard.

In 1992 the European Committee for Standardization (CEN) accepted ISO 9315:1989 as European Standard EN 29315:1992. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN 29315 and any reference to BS ISO 9315:1989 should be read as a reference to BS EN 29315.

This British Standard is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/6 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

NOTE International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, page 2, the ISO title page, pages ii to iv, pages 1 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

UDC 681.327.8:681.327.634

Descriptors: Data transmission, computer interfaces, data recording, data recording devices, flexible disks, specifications

English version

Information processing systems — Interface between flexible disk cartridge drives and their host controllers

(ISO 9315, 1st edition 1989)

Systèmes de traitement de l'information —
Interface entre dispositifs d'entraînement pour
cartouches de disques souples et leurs
contrôleurs hôtes
(ISO 9315, 1ère édition 1989)

Informationsverarbeitungssysteme —
Schnittstelle zwischen Disketten-Laufwerken
und ihren Steuerungen
(ISO 9315, 1. Ausgabe 1989)

This European Standard was approved by CEN on 1992-10-30. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

© 1992 Copyright reserved to CEN members

Foreword

The Technical Board has decided to submit the International Standard ISO 9315:1989 “*Information processing systems — Interface between flexible disk cartridge drives and their host controllers (ISO 9315, 1st edition 1989)*” for formal vote.

The result of the formal vote was positive.

For the time being, this document exists only in English.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 1993, and conflicting national standards shall be withdrawn at the latest by May 1993.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

INTERNATIONAL STANDARD

**ISO
9315**

First edition
1989-07-15

Information processing systems — Interface between flexible disk cartridge drives and their host controllers

*Systèmes de traitement de l'information — Interface entre dispositifs d'entraînement
pour cartouches de disques souples et leurs contrôleurs hôtes*



Reference number
ISO 9315 : 1989 (E)

Contents

	Page
Foreword	iv
1 Scope	1
2 Definitions	1
3 Functional signals	2
3.1 Head current switch/active read filter	2
3.1.1 Head current switch — write mode	2
3.1.2 Active read filter — read mode	2
3.2 Drive select (four signal lines)	3
3.3 Direction select	3
3.4 Step	3
3.5 Composite write data	3
3.6 Write gate	3
3.7 Index	3
3.8 Sector	3
3.9 Drive ready	3
3.10 Cylinder 0	3
3.11 Write protected	4
3.12 Composite read data	4
3.13 Side one select	4
3.14 In-use control	4
3.15 Head load	4
3.16 Drive busy	4
3.17 Two-sided	4
3.18 Disk change	4
3.19 Separated read data	4
3.20 Separated read clock	4
3.21 Not assigned	5
3.22 Motor on	5
3.23 Index/sector	5
3.24 Not assigned	5
4 Timing	5
4.1 Power sequencing	5
4.2 Drive selection	5
4.3 Read/write data timing	5
5 Electrical requirements for signal interface	5
5.1 Multidrop bus	5
5.2 Voltage levels	5
5.3 Termination	5
5.4 Signal drivers	5
5.5 Signal receivers	5
6 Mechanical description	6
6.1 Connectors	6
6.2 Interconnecting cable characteristics	6
6.2.1 Conductor size	6
6.2.2 Stray capacitance	6
6.2.3 Mutual pair capacitance	6
Figure 1 — 200 mm (8 in) cartridge drive signals	7
Figure 2 — 130 mm (5,25 in) cartridge drive signals	8
Figure 3 — Track access timing, 200 mm (8 in)	9
Figure 4 — Read initiate timing, 200 mm (8 in)	9

	Page
Figure 5 — Read data timing, 200 mm (8 in)	10
Figure 6 — Write initiate timing, 200 mm (8 in)	10
Figure 7 — Write data timing, 200 mm (8 in)	10
Figure 8 — General control data timing requirements, 200 mm (8 in)	11
Figure 9 — Track access timing, 130 mm (5,25 in)	12
Figure 10 — Read initiate timing, 130 mm (5,25 in)	12
Figure 11 — Read data timing, 130 mm (5,25 in)	13
Figure 12 — Write initiate timing, 130 mm (5,25 in)	13
Figure 13 — Write data timing, 130 mm (5,25 in)	13
Figure 14 — General control and data timing requirements, 130 mm (5,25 in)	14
Figure 15 — Interface interconnect circuit scheme	15
Figure 16 — Resistive termination networks	16
Figure 17 — Signal interface, edge connector on 200 mm (8 in) drive	16
Figure 18 — Signal interface, edge connector on 130 mm (5,25 in) drive	16
Figure 19 — Signal interface cable connector for 200 mm (8 in) drive	17
Figure 20 — Signal interface cable connector for 130 mm (5,25 in) drive	18