



National Standards Authority of Ireland

STANDARD

**I.S. EN 61158-3:2004**

ICS 25.040  
35.100  
35.240.50

**DIGITAL DATA COMMUNICATION FOR  
MEASUREMENT AND CONTROL - FIELDBUS  
FOR USE IN INDUSTRIAL CONTROL  
SYSTEMS PART 3: DATA LINK SERVICE  
DEFINITION (IEC 61158-3:2003)**

National Standards  
Authority of Ireland  
Dublin 9  
Ireland

Tel: (01) 807 3800  
Fax: (01) 807 3838

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EUROPEAN STANDARD

**EN 61158-3**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2004

ICS 25.040; 35.100; 35.240.50

Partially supersedes EN 50170:1996 + A1:2002 + A2:1999 + A3:2002 and EN 50254:1998

English version

**Digital data communication for measurement and control -  
Fieldbus for use in industrial control systems  
Part 3: Data link service definition  
(IEC 61158-3:2003)**

Communications numériques pour les  
systèmes de mesure et de commande -  
Bus de terrain utilisés dans les systèmes  
de commande industriels  
Partie 3: Définition des services  
de la couche de liaison de données  
(CEI 61158-3:2003)

Digitale Datenkommunikation  
in der Leittechnik -  
Feldbus für industrielle Leitsysteme  
Teil 3: Definition der Dienste  
der Sicherungsschicht (Data Link Layer)  
(IEC 61158-3:2003)

This European Standard was approved by CENELEC on 2004-03-16. CENELEC 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 CENELEC member.

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

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard IEC 61158-3:2003, prepared by SC 65C, Digital communications, of IEC TC 65, Industrial-process measurement and control, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61158-3 on 2004-03-16.

This European Standard, together with EN 61158-2:2004, EN 61158-4:2004 to EN 61158-6:2004 and EN 61784-1:2004, supersedes EN 50170:1996 + A1:2002 (+ corr. Aug. 2002) + A2:1999 + A3:2002 (+ corr. Aug. 2002) and EN 50254:1998.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-04-01

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61158-2	NOTE	Harmonized as 61158-2:2004 (not modified).
IEC 61158-5	NOTE	Harmonized as 61158-5:2004 (not modified).
IEC 61158-6	NOTE	Harmonized as 61158-6:2004 (not modified).
IEC 61784	NOTE	Part 1 harmonized as 61784-1:2004 (not modified).

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61158-3:2003 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 7498-1	1994	Information technology - Open systems interconnection - Basic reference model Part 1: The basic model	EN ISO/IEC 7498-1	1995
ISO/IEC 7498-3	1997	Part 3: Naming and addressing	-	-
ISO/IEC 8886	1996	Information technology - Open systems interconnection - Data link service definition	-	-
ISO/IEC 10731	1994	Information technology - Open Systems Interconnection Basic reference model - Conventions for the definition of OSI services	-	-
IEC 61158-4 + corr. July	2003 2004	Digital data communication for measurement and control - Fieldbus for use in industrial control systems Part 4: Data Link Layer protocol specification	EN 61158-4	2004
IEEE Std 1451.2	1997	A smart transducer interface for sensors and actuators - Transducer to microprocessor communication protocols and Transducer Electronic Data Sheets (TEDS) formats	-	-

# INTERNATIONAL STANDARD

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Third edition  
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**Digital data communications  
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Fieldbus for use in industrial  
control systems –**

**Part 3:  
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