

Digital data communications for measurement and control — Fieldbus for use in industrial control systems —

**Part 1: Overview and guidance for the
IEC 61158 series**

ICS 25.040; 35.100; 35.240.50

National foreword

This Published Document is the official English language version of CLC/TR 61158-1:2004. It is identical with IEC/TR 61158-1:2003.

The UK participation in its preparation was entrusted to Technical Committee AMT/7, Industrial communications: Process measurement and control, including Fieldbus, which has the responsibility to:

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Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

Summary of pages

This document comprises a front cover, an inside front cover, the CLC/TR title page, pages 2 to 11 and a back cover.

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English version

**Digital data communications for measurement and control –
Fieldbus for use in industrial control systems
Part 1: Overview and guidance for the IEC 61158 series
(IEC/TR 61158-1:2003)**

Communications numériques pour les
systèmes de mesure et de commande –
Bus de terrain utilisés dans les systèmes
de commande industriels
Partie 1: Vue d'ensemble et guide
pour la série CEI 61158
(CEI/TR 61158-1:2003)

Digitale Datenkommunikation
in der Leittechnik –
Feldbus für industrielle Leitsysteme
Teil 1: Übersicht und Leitfaden
für die Reihe IEC 61158
(IEC/TR 61158-1:2003)

This Technical Report was approved by CENELEC on 2004-05-22.

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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

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Foreword

The text of the Technical Report IEC/TR 61158-1:2003, prepared by SC 65C, Digital communications, of IEC TC 65, Industrial-process measurement and control, was submitted to the formal vote and was approved by CENELEC as CLC/TR 61158-1 on 2004-05-22 without any modification.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the Technical Report IEC/TR 61158-1:2003 was approved by CENELEC as a Technical Report without any modification.

DIGITAL DATA COMMUNICATIONS FOR MEASUREMENT AND CONTROL – FIELDBUS FOR USE IN INDUSTRIAL CONTROL SYSTEMS –

Part 1: Overview and guidance for the IEC 61158 series

1 Scope

This Technical Report presents an overview and guidance for the IEC 61158 series. It explains the structure and content of IEC 61158, shows how to use it in combination with IEC 61784, and relates the structure to the ISO/IEC 7498 OSI Basic Reference Model.

2 Normative references

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.

IEC 61158-2, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Part 2: Physical Layer specification and service definition*

IEC 61158-3, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Part 3: Data Link Service definition*

IEC 61158-4, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Part 4: Data Link protocol specification*

IEC 61158-5, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Part 5: Application Layer service definition*

IEC 61158-6, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Part 6: Application Layer protocol specification*

IEC 61784, *Digital data communications for measurement and control — Fieldbus for use in industrial control systems – Profile sets for continuous and discrete manufacturing*

ISO/IEC 7498-1, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*

3 Definitions and abbreviations

This part of IEC 61158 is based partially on the concepts developed in ISO/IEC 7498-1 and makes use of the following definitions and abbreviations derived from that standard: