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Industrial communication networks - Fieldbus specifications - Part 4-21: Data-link layer protocol specification - Type 21 elements (IEC 61158-4-21:2023)

Industrielle Kommunikationsnetze - Feldbusse - Teil 4-21: Protokollspezifikation des Data Link Layer (Sicherungsschicht) - Typ 21-Elemente (IEC 61158-4-21:2023)

Réseaux de communication industriels - Spécifications des bus de terrain - Partie 4-21: Spécification du protocole de la couche de liaison de données - Eléments de type 21 (IEC 61158-4-21:2023)

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European foreword

The text of document 65C/1202/FDIS, future edition 3 of IEC 61158-4-21, prepared by SC 65C "Industrial networks" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61158-4-21:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2024-02-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-05-02

This document supersedes EN IEC 61158-4-21:2019 and all of its amendments and corrigenda (if any).

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61158-3-21	2019	Industrial communication networks - Fieldbus specifications - Part 3-21: Data-link layer service definition - Type 21 elements	EN IEC 61158-3-21	2019
ISO/IEC 7498-1	1994	Information technology - Open Systems Interconnection - Basic reference model: The basic model	-	-
ISO/IEC 7498-3	-	Information technology - Open Systems Interconnection - Basic reference model: Naming and addressing	-	-
ISO/IEC/IEEE 8802-3	2021	Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet	-	-
ISO/IEC 10731	-	Information technology - Open Systems Interconnection - Basic Reference Model - Conventions for the definition of OSI services	-	-

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Part 4-21: Data-link layer protocol specification – Type 21 elements

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NOTE Combinations of protocol types are specified in the IEC 61784-1 series and the IEC 61784-2 series.

IEC 61158-4-21 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial process measurement, control and automation. It is an International Standard.

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This edition includes the following significant technical changes with respect to the previous edition:

a) changed Table 9, Table 15, Table 30, Table 34, Table 35, Table 43, Table 47, Table 48, Table 49, Table 58, and Table 61;

b) changed Network Control Message Type;

c) miscellaneous editorial corrections.

The text of this International Standard is based on the following documents:

Draft	Report on voting
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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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