



BSI Standards Publication

Fibre optic active components and devices — Performance standards

Part 4: 1 300 nm fibre optic transceivers for Gigabit Ethernet application

National foreword

This British Standard is the UK implementation of EN IEC 62149-4:2023+A1:2025. It is identical to IEC 62149-4:2022, incorporating amendment 1:2025. It supersedes BS EN IEC 62149-4:2023, which will be withdrawn on 30 June 2028.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee GEL/86/3, Fibre optic systems and active devices.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
30 June 2025	Implementation of IEC amendment 1:2025 with CENELEC endorsement A1:2025

English Version

Fibre optic active components and devices - Performance
standards - Part 4: 1 300 nm fibre optic transceivers for Gigabit
Ethernet application
(IEC 62149-4:2022)

Composants et dispositifs actifs fibroniques - Normes de
performance - Partie 4: Émetteurs-récepteurs fibroniques
de 1 300 nm pour application Gigabit Ethernet
(IEC 62149-4:2022)

Aktive Lichtwellenleiterbauelemente und -geräte -
Betriebsverhalten - Teil 4: 1 300-nm-Lichtwellenleiter-
Sende- und Empfangsmodule für Gigabit-Ethernet-
Anwendungen
(IEC 62149-4:2022)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 86C/1800/CDV, future edition 3 of IEC 62149-4, prepared by SC 86C "Fibre optic systems and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62149-4:2023.

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) 2023-10-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-01-20

This document supersedes EN 62149-4:2010 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 62149-4:2022 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment 1

The text of document 86C/1946/CDV, future edition 3 of IEC 62149-4/AMD1, prepared by SC 86C "Fibre optic systems, sensing and active devices" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62149-4:2023/A1:2025.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-06-30

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Annex A (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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	-
IEC 60068-2-20	-	Environmental testing - Part 2-20: Tests - Test Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads	EN IEC 60068-2-20	-
IEC 60068-2-27	-	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	-
IEC 60068-2-38	-	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	EN IEC 60068-2-38	-
IEC 60068-2-78	-	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-
IEC 60749-25	-	Semiconductor devices - Mechanical and climatic test methods - Part 25: Temperature cycling	EN 60749-25	-
IEC 60749-26	-	Semiconductor devices - Mechanical and climatic test methods - Part 26: Electrostatic discharge (ESD) sensitivity testing - Human body model (HBM)	EN IEC 60749-26	-
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 60938-1	-	Fixed inductors for electromagnetic interference suppression - Part 1: Generic specification	EN IEC 60938-1	-
IEC 60950-1	-	Information technology equipment - Safety - Part 1: General requirements		-
IEC 61300-2-47	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-47: Tests - Thermal shocks	EN 61300-2-47	-

EN IEC 62149-4:2023+A1:2025 (E)

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	-	-
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