



BSI Standards Publication

Fibre optic sensors

Part 1-2: Strain measurement — Distributed sensing based on Brillouin scattering

National foreword

This British Standard is the UK implementation of EN IEC 61757-1-2:2023. It is identical to IEC 61757-1-2:2023.

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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English Version

**Fibre optic sensors - Part 1-2: Strain measurement - Distributed sensing based on Brillouin scattering
(IEC 61757-1-2:2023)**

Capteurs fibroniques - Partie 1-2: Mesure de déformation -
Détection répartie basée sur la diffusion de Brillouin
(IEC 61757-1-2:2023)

Lichtwellenleiter-Sensoren - Teil 1-2: Dehnungsmessung -
Verteilte Sensorik auf der Basis von Brillouin-Streuung
(IEC 61757-1-2:2023)

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European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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European foreword

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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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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IEC 61757-2-2	2016	Fibre optic sensors - Part 2-2: Temperature measurement - Distributed sensing	EN 61757-2-2	2017
IEC 61757-3-2	2022	Fibre optic sensors - Part 3-2: Acoustic sensing and vibration measurement - Distributed sensing	EN IEC 61757-3-2	2022
ISO/IEC Guide 98-3 -		Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)	-	-

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms, definitions, abbreviated terms and symbols.....	6
3.1 Terms and definitions.....	6
3.2 Abbreviated terms.....	10
3.3 Symbols.....	11
4 General test setups for measurement of performance parameters	11
4.1 General and test setup requirements	11
4.2 General documentation requirements.....	16
5 Measurement procedures for performance parameters	16
5.1 Strain measurement error	16
5.1.1 Test procedure and conditions.....	16
5.1.2 Parameter calculation and reporting	17
5.2 Spatial resolution	17
5.2.1 Test procedure and conditions.....	17
5.2.2 Parameter calculation and reporting	18
5.3 Strain repeatability.....	18
5.3.1 Test procedure and conditions.....	18
5.3.2 Parameter calculation and reporting	18
5.4 Spatial strain uncertainty	19
5.4.1 Test procedure and conditions.....	19
5.4.2 Parameter calculation and reporting	19
5.5 Warm-up time	20
5.5.1 Test procedure and conditions.....	20
5.5.2 Parameter calculation and reporting	20
5.6 System performance with altered attenuation.....	20
5.6.1 General	20
5.6.2 At distance measurement range	21
5.6.3 At short distance with high loss.....	22
Bibliography.....	24
Figure 1 – Optical fibre strain profile and related strain sample points.....	8
Figure 2 – General test setup for single-ended configuration	12
Figure 3 – General test setup for loop configuration.....	13
Figure 4 – Measured versus applied strain (typical curve).....	15
Figure 5 – Brillouin frequency shift as a function of elongation of a standard telecommunication fibre	15
Figure 6 – Performance evaluation at distance measurement range.....	21
Figure 7 – Performance evaluation at short distance with high loss.....	22

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC SENSORS –

**Part 1-2: Strain measurement –
Distributed sensing based on Brillouin scattering**

FOREWORD

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IEC 61757-1-2 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics. It is an International Standard.

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

Draft	Report on voting
86C/1857/CDV	86C/1872/RVC

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.

A list of all parts in the IEC 61757 series, published under the general title *Fibre optic sensors*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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INTRODUCTION

This document is part of the IEC 61757 series, which is dedicated to fibre optic sensors. Generic specifications for fibre optic sensors are defined in IEC 61757.

The individual parts of the IEC 61757 series are numbered as IEC 61757-*M-T*, where *M* denotes the measure and *T* the technology of the fibre optic sensor. The IEC 61757-1-*T* series is concerned with strain measurements.