



**NSAI**  
Standards

Irish Standard  
I.S. EN 61757-1-1:2017

# Fibre optic sensors - Part 1-1: Strain measurement - Strain sensors based on fibre Bragg gratings

**I.S. EN 61757-1-1:2017**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

EN 61757-1-1:2017

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## National Foreword

I.S. EN 61757-1-1:2017 is the adopted Irish version of the European Document EN 61757-1-1:2017, Fibre optic sensors - Part 1-1: Strain measurement - Strain sensors based on fibre Bragg gratings

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

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EUROPEAN STANDARD

**EN 61757-1-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 33.180.99

English Version

**Fibre optic sensors - Part 1-1: Strain measurement - Strain  
sensors based on fibre Bragg gratings  
(IEC 61757-1-1:2016)**

Capteurs à fibres optiques - Partie 1-1: Mesure de  
déformation - Capteurs de déformation basés sur des  
réseaux de Bragg à fibres  
(IEC 61757-1-1:2016)

LWL-Sensoren - Teil 1-1: Zugmessungen - Zugsensoren  
basierend auf Faser-Bragg-Gatter  
(IEC 61757-1-1:2016)

This European Standard was approved by CENELEC on 2016-03-31. 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 CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 61757-1-1:2017****European foreword**

The text of document 86C/1322/CDV, future edition 1 of IEC 61757-1-1, 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 61757-1-1:2017.

The following dates are fixed:

- latest date by which the document has to be (dop) 2017-08-17  
implemented at national level by  
publication of an identical national  
standard or by endorsement
- latest date by which the national (dow) 2020-02-17  
standards conflicting with the  
document have to be withdrawn

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This publication is to be read in conjunction with EN 61757-1:2012.

**Endorsement notice**

The text of the International Standard IEC 61757-1-1:2016 was approved by CENELEC as a European Standard without any modification.

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

IEC 60793-1-30	NOTE	Harmonized as EN 60793-1-30.
IEC 60793-1-31	NOTE	Harmonized as EN 60793-1-31.
IEC 60793-1-33	NOTE	Harmonized as EN 60793-1-33.
ISO 527-4	NOTE	Harmonized as EN ISO 527-4.
ISO 7500-1	NOTE	Harmonized as EN ISO 7500-1.
ISO 14125	NOTE	Harmonized as EN ISO 14125.

**Annex ZA**

(normative)

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

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

NOTE 1 When 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	series	International Electrotechnical Vocabulary_ - Part_102: Mathematics_ - General concepts and linear algebra	-	series
IEC 60068-2	series	Environmental testing -- Part 2: Tests	EN 60068-2	series
IEC 60793-2	-	Optical fibres - Part 2: Product specifications - General	EN 60793-2	-
IEC 60874-1	-	Fibre optic interconnecting devices and passive components - Connectors for optical fibres and cables -- Part 1: Generic specification	EN 60874-1	-
IEC 61300-2	series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures -- Part 2-1: Tests - Vibration (sinusoidal)	-	series
IEC 61757-1	2012	Fibre optic sensors -- Part 1: Generic specification	EN 61757-1	2012
IEC 62129-1	-	Calibration of wavelength/optical frequency measurement instruments - Part 1: Optical spectrum analyzers	EN 62129-1	-
IEC 62129-2	-	Calibration of wavelength/optical frequency measurement instruments -- Part 2: Michelson interferometer single wavelength meters	EN 62129-2	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-
IEC/TS 62129-3	-	Calibration of wavelength/optical frequency measurement instruments - Part 3: Optical frequency meters using optical frequency combs	-	-
ISO/IEC Guide 99	-	International vocabulary of metrology - Basic- and general concepts and associated terms (VIM)	-	-

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