



BSI Standards Publication

Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC — Equipment for testing, measuring or monitoring of protective measures

Part 17: Non-contact AC voltage indicators (IEC 61557-17:2021)

National foreword

This British Standard is the UK implementation of EN IEC 61557-17:2021. It is identical to IEC 61557-17:2021.

The UK participation in its preparation was entrusted to Technical Committee PEL/85, Measuring equipment for electrical and electromagnetic quantities.

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

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2022
Published by BSI Standards Limited 2022

ISBN 978 0 539 05358 6

ICS 17.220.20; 29.080.01; 29.240.01

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2022.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

English Version

Electrical safety in low voltage distribution systems up to 1 000 V
AC and 1 500 V DC - Equipment for testing, measuring or
monitoring of protective measures - Part 17: Non-contact AC
voltage indicators
(IEC 61557-17:2021)

Sécurité électrique dans les réseaux de distribution basse
tension au plus égale à 1 000 V C.A. et 1 500 V C.C. -
Dispositifs de contrôle, de mesure ou de surveillance de
mesures de protection - Partie 17: Indicateurs de tension
alternative sans contact
(IEC 61557-17:2021)

Elektrische Sicherheit in Niederspannungsnetzen bis AC 1
000 V und DC 1 500 V - Geräte zum Prüfen, Messen oder
Überwachen von Schutzmaßnahmen - Teil 17:
Berührungslose Spannungsanzeiger
(IEC 61557-17:2021)

This European Standard was approved by CENELEC on 2021-12-15. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 85/790/FDIS, future edition 1 of IEC 61557-17, prepared by IEC/TC 85 “Measuring equipment for electrical and electromagnetic quantities” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61557-17:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-09-15 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-12-15 document have to be withdrawn

This document is read in conjunction with EN IEC 61557-1:2021.

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61557-17:2021 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 61010-1:2010 NOTE Harmonized as EN 61010-1:2010 (not modified)

IEC 61243-3 NOTE Harmonized as EN 61243-3

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>
IEC 61010-031	2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test	EN 61010-031	2015
/AMD1	2018		/A1	2021
IEC 61326-1	2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements	EN IEC 61326-1	2021
IEC 61557-1	2019	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements	EN IEC 61557-1	2021

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions	6
4 Requirements	7
4.1 General.....	7
4.2 Influencing quantities – Operating uncertainty (B), percentage operating uncertainty (B [%])	7
4.3 Rated operating conditions	7
4.4 Battery test facility	7
4.5 Safety	7
4.6 Electromagnetic compatibility.....	8
4.6.1 Immunity.....	8
4.6.2 Emission.....	8
4.7 Indication	8
5 Marking and operating instructions	8
6 Tests	9
6.1 General.....	9
6.2 Test of mechanical strength	9
6.3 Test of indication (type test).....	9
6.4 Test of visibility of optical indication (type test)	11
6.5 Safety tests.....	11
6.6 EMC tests	12
6.7 Marking and operating instructions.....	12
Bibliography.....	13
Figure 1 – Non-contact AC voltage indicator	8
Figure 2 – Test configuration to determine the trigger point of indication (front view)	10
Figure 3 – Test configuration to determine the trigger point of indication (side view).....	11