IEC 61554

Edition 2.0 2025-05
REDLINE VERSION

INTERNATIONAL STANDARD

Panel mounted equipment – Electrical measuring instruments – Dimensions for panel mounting

ICS 17.220.20

ISBN 978-2-8327-0465-3

CONTENTS

FOREWORD 3
1 Scope 5
2 Normative references 5
3 Terms and definitions 5
4 Requirements 6
4.1 General 6
4.2 Instrument size designation 6
4.3 Dimensions of the cut-out 6
4.4 Individual cut-out mounting 6
4.5 Common cut-out mounting 7
Annex A (~~informative~~normative) Dimensions for instruments with round housing 12
A.1 ~~Introduction~~ General 12
A.2 ~~Scope~~ Overview 12
A.3 Requirements 12
A.3.1 General 12
A.3.2 Instrument size designation 12
A.3.3 Individual cut-out mounting 12

Figure 1 – Square housing 7
Figure 2 – Rectangular lateral housing 7
Figure 3 – Rectangular upright housing 8
Figure 4 – Common cut-out mounting 8
Figure A.1 – Round housing with a square bezel 13
~~Figure A.2 – Round housing with a rectangular bezel .....~~
Figure A.2 – Round housing with a rectangular bezel type 1 16
Figure A.3 – Round housing with a rectangular bezel type 2 18

Table 1 – Sizes and tolerances 9
Table A.1 – Sizes and tolerances of round housing with a square bezel 14
Table A.2 – Sizes and tolerances of round housing with a rectangular bezel type 1 17
Table A.3 – Sizes and tolerances of round housing with a rectangular bezel type 2 18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

PANEL MOUNTED EQUIPMENT – ELECTRICAL MEASURING INSTRUMENTS – DIMENSIONS FOR PANEL MOUNTING

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61554:1999. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 61554 has been prepared by IEC technical committee 85: Measuring equipment for electrical and electromagnetic quantities. It is an International Standard.

This second edition cancels and replaces the first edition published in 1999. This edition constitutes a technical revision.

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

a) Add more sizes and tolerances of instruments and some practical information for panel mounting which were not mentioned in IEC 61554:1999;
b) Modify several current sizes and tolerance of instruments;
c) Update the figures in Annex A;
d) Change Annex A from informative to normative.

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

Draft	Report on voting
85/949/FDIS	85/956/RVD

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.

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.

PANEL MOUNTED EQUIPMENT – ELECTRICAL MEASURING INSTRUMENTS – DIMENSIONS FOR PANEL MOUNTING

1 Scope

This document defines a system of dimensions for panel mounting of equipment. It is applicable to electrical and electrically operated indicating, recording and control instruments.

It applies to the following types of instruments with protruding bezels:

- instruments with square housing;
- instruments with rectangular housing with lateral orientation;
- instruments with rectangular housing with upright orientation;
- instruments with round housing and square bezel;
- instruments with round housing and rectangular bezel.

The purpose of this document is to establish dimensional interchangeability between instruments made by different manufacturers. To fulfil this requirement, a defined set of dimensions has been chosen. Using these dimensions, it ~~should~~ will be easier to combine instruments of different sizes on the same panel making good use of the available panel space and to produce a satisfactory layout.

2 Normative references

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.

ISO 2768-1, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

IEC 61554

Edition 2.0 2025-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Panel mounted equipment – Electrical measuring instruments – Dimensions for panel mounting

Appareils montés en tableaux – Instruments de mesure électriques – Dimensions pour le montage en tableaux

ICS 17.220.20

ISBN 978-2-8327-0381-6

IEC 61554:2025-05(en-fr)

CONTENTS

FOREWORD 3
1 Scope 5
2 Normative references 5
3 Terms and definitions 5
4 Requirements 6
4.1 General 6
4.2 Instrument size designation 6
4.3 Dimensions of the cut-out 6
4.4 Individual cut-out mounting 6
4.5 Common cut-out mounting 7
Annex A (normative) Dimensions for instruments with round housing 11
A.1 General 11
A.2 Overview 11
A.3 Requirements 11
A.3.1 General 11
A.3.2 Instrument size designation 11
A.3.3 Individual cut-out mounting 11

Figure 1 – Square housing 7
Figure 2 – Rectangular lateral housing 7
Figure 3 – Rectangular upright housing 8
Figure 4 – Common cut-out mounting 8
Figure A.1 – Round housing with a square bezel 12
Figure A.2 – Round housing with a rectangular bezel type 1 13
Figure A.3 – Round housing with a rectangular bezel type 2 15

Table 1 – Sizes and tolerances 9
Table A.1 – Sizes and tolerances of round housing with a square bezel 12
Table A.2 – Sizes and tolerances of round housing with a rectangular bezel type 1 14
Table A.3 – Sizes and tolerances of round housing with a rectangular bezel type 2 15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

PANEL MOUNTED EQUIPMENT – ELECTRICAL MEASURING INSTRUMENTS – DIMENSIONS FOR PANEL MOUNTING

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61554 has been prepared by IEC technical committee 85: Measuring equipment for electrical and electromagnetic quantities. It is an International Standard.

This second edition cancels and replaces the first edition published in 1999. This edition constitutes a technical revision.

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

a) Add more sizes and tolerances of instruments and some practical information for panel mounting which were not mentioned in IEC 61554:1999;
b) Modify several current sizes and tolerance of instruments;
c) Update the figures in Annex A;
d) Change Annex A from informative to normative.

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

Draft	Report on voting
85/949/FDIS	85/956/RVD

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.

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.

PANEL MOUNTED EQUIPMENT – ELECTRICAL MEASURING INSTRUMENTS – DIMENSIONS FOR PANEL MOUNTING

1 Scope

This document defines a system of dimensions for panel mounting of equipment. It is applicable to electrical and electrically operated indicating, recording and control instruments.

It applies to the following types of instruments with protruding bezels:

- instruments with square housing;
- instruments with rectangular housing with lateral orientation;
- instruments with rectangular housing with upright orientation;
- instruments with round housing and square bezel;
- instruments with round housing and rectangular bezel.

The purpose of this document is to establish dimensional interchangeability between instruments made by different manufacturers. To fulfil this requirement, a defined set of dimensions has been chosen. Using these dimensions, it will be easier to combine instruments of different sizes on the same panel making good use of the available panel space and to produce a satisfactory layout.

2 Normative references

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.

ISO 2768-1, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

SOMMAIRE

AVANT-PROPOS 17
1 Domaine d'application 19
2 Références normatives 19
3 Termes et définitions 19
4 Exigences 20
4.1 Généralités 20
4.2 Désignation des dimensions de l'appareil 20
4.3 Dimensions du perçage 20
4.4 Montage de l'appareil dans un perçage individuel 20
4.5 Montage des appareils dans un perçage commun 21
Annexe A (normative) Dimensions pour appareils à boîtiers ronds 25
A.1 Généralités 25
A.2 Vue d'ensemble 25
A.3 Exigences 25
A.3.1 Généralités 25
A.3.2 Désignation des dimensions de l'appareil 25
A.3.3 Montage de l'appareil dans un perçage individuel 25

Figure 1 – Boîtier carré 21
Figure 2 – Boîtier rectangulaire horizontal 21
Figure 3 – Boîtier rectangulaire vertical 22
Figure 4 – Montage des appareils dans un perçage commun 22
Figure A.1 – Boîtier rond avec cadre carré 26
Figure A.2 – Boîtier rond avec cadre rectangulaire de type 1 27
Figure A.3 – Boîtier rond avec cadre rectangulaire de type 2 29

Tableau 1 – Dimensions et tolérances 23
Tableau A.1 – Dimensions et tolérances du boîtier rond avec cadre carré 26
Tableau A.2 – Dimensions et tolérances du boîtier rond avec cadre rectangulaire de type 1 28
Tableau A.3 – Dimensions et tolérances du boîtier rond avec cadre rectangulaire de type 2 29

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

_____

APPAREILS MONTÉS EN TABLEAUX – INSTRUMENTS DE MESURE ÉLECTRIQUES – DIMENSIONS POUR LE MONTAGE EN TABLEAUX

AVANT-PROPOS

1) La Commission Électrotechnique Internationale (IEC) est une organisation mondiale de normalisation composée de l'ensemble des comités électrotechniques nationaux (Comités nationaux de l'IEC). L'IEC a pour objet de favoriser la coopération internationale pour toutes les questions de normalisation dans les domaines de l'électricité et de l'électronique. À cet effet, l'IEC – entre autres activités – publie des Normes internationales, des Spécifications techniques, des Rapports techniques, des Spécifications accessibles au public (PAS) et des Guides (ci-après dénommés "Publication(s) de l'IEC"). Leur élaboration est confiée à des comités d'études, aux travaux desquels tout Comité national intéressé par le sujet traité peut participer. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'IEC, participent également aux travaux. L'IEC collabore étroitement avec l'Organisation Internationale de Normalisation (ISO), selon des conditions fixées par accord entre les deux organisations.
2) Les décisions ou accords officiels de l'IEC concernant les questions techniques représentent, dans la mesure du possible, un accord international sur les sujets étudiés, étant donné que les Comités nationaux de l'IEC intéressés sont représentés dans chaque comité d'études.
3) Les Publications de l'IEC se présentent sous la forme de recommandations internationales et sont agréées comme telles par les Comités nationaux de l'IEC. Tous les efforts raisonnables sont entrepris afin que l'IEC s'assure de l'exactitude du contenu technique de ses publications; l'IEC ne peut pas être tenue responsable de l'éventuelle mauvaise utilisation ou interprétation qui en est faite par un quelconque utilisateur final.
4) Dans le but d'encourager l'uniformité internationale, les Comités nationaux de l'IEC s'engagent, dans toute la mesure possible, à appliquer de façon transparente les Publications de l'IEC dans leurs publications nationales et régionales. Toutes divergences entre toutes Publications de l'IEC et toutes publications nationales ou régionales correspondantes doivent être indiquées en termes clairs dans ces dernières.
5) L'IEC elle-même ne fournit aucune attestation de conformité. Des organismes de certification indépendants fournissent des services d'évaluation de conformité et, dans certains secteurs, accèdent aux marques de conformité de l'IEC. L'IEC n'est responsable d'aucun des services effectués par les organismes de certification indépendants.
6) Tous les utilisateurs doivent s'assurer qu'ils sont en possession de la dernière édition de cette publication.
7) Aucune responsabilité ne doit être imputée à l'IEC, à ses administrateurs, employés, auxiliaires ou mandataires, y compris ses experts particuliers et les membres de ses comités d'études et des Comités nationaux de l'IEC, pour tout préjudice causé en cas de dommages corporels et matériels, ou de tout autre dommage de quelque nature que ce soit, directe ou indirecte, ou pour supporter les coûts (y compris les frais de justice) et les dépenses découlant de la publication ou de l'utilisation de cette Publication de l'IEC ou de toute autre Publication de l'IEC, ou au crédit qui lui est accordé.
8) L'attention est attirée sur les références normatives citées dans cette publication. L'utilisation de publications référencées est obligatoire pour une application correcte de la présente publication.
9) L'IEC attire l'attention sur le fait que la mise en application du présent document peut entraîner l'utilisation d'un ou de plusieurs brevets. L'IEC ne prend pas position quant à la preuve, à la validité et à l'applicabilité de tout droit de brevet revendiqué à cet égard. À la date de publication du présent document, l'IEC n'a pas reçu notification qu'un ou plusieurs brevets pouvaient être nécessaires à sa mise en application. Toutefois, il y a lieu d'avertir les responsables de la mise en application du présent document que des informations plus récentes sont susceptibles de figurer dans la base de données de brevets, disponible à l'adresse https://patents.iec.ch. L'IEC ne saurait être tenue pour responsable de ne pas avoir identifié de tels droits de brevets.

L'IEC 61554 a été établie par le comité d'études 85 de l'IEC: Équipement de mesure des grandeurs électriques et électromagnétiques. Il s'agit d'une Norme internationale.

Cette deuxième édition annule et remplace la première édition parue en 1999. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) Ajout de dimensions et tolérances supplémentaires pour les appareils et de certaines informations pratiques relatives au montage en tableaux, qui n'étaient pas mentionnées dans l'IEC 61554:1999;
b) Modification de plusieurs dimensions et tolérances actuelles pour les appareils;
c) Mise à jour des figures de l'Annexe A;
d) Modification du statut de l'Annexe A d'informative à normative.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
85/949/FDIS	85/956/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/publications.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives au document recherché. À cette date, le document sera

- reconduit,
- supprimé, ou
- révisé.

APPAREILS MONTÉS EN TABLEAUX – INSTRUMENTS DE MESURE ÉLECTRIQUES – DIMENSIONS POUR LE MONTAGE EN TABLEAUX

1 Domaine d'application

Le présent document définit un système de dimensions pour le montage en tableaux des appareils. Il est applicable aux instruments de mesure électriques du type indicateur, enregistreur et de contrôle.

Il s’applique aux types d'appareils suivants avec cadre en saillie:

- appareils avec boîtier carré;
- appareils avec boîtier rectangulaire et orientation horizontale;
- appareils avec boîtier rectangulaire et orientation verticale;
- appareils avec boîtier rond et cadre carré;
- appareils avec boîtier rond et cadre rectangulaire.

L’objectif du présent document est de permettre une interchangeabilité dimensionnelle entre les appareils fabriqués par des constructeurs différents. Pour répondre à cette exigence, une série déterminée de dimensions a été choisie. En utilisant ces dimensions, il sera plus facile de grouper sur le même panneau des appareils ayant des dimensions différentes et d’utiliser au mieux la surface disponible sans nuire toutefois à l'esthétique.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu’ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l’édition citée s’applique. Pour les références non datées, la dernière édition du document de référence s’applique (y compris les éventuels amendements).

ISO 2768-1, *Tolérances générales – Partie 1: Tolérances pour dimensions linéaires et angulaires non affectées de tolérances individuelles*