

STN	Prístroje radiačnej ochrany Pevne inštalované zostavy na monitorovanie povrchovej kontaminácie osôb	STN EN IEC 61098 35 6607
------------	--	--

Radiation protection instrumentation - Installed personnel surface contamination monitors

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/24

Obsahuje: EN IEC 61098:2024, IEC 61098:2023

Oznámením tejto normy sa od 22.01.2027 ruší
STN EN 61098 (35 6607) z marca 2008

138451



Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii
v znení neskorších predpisov.

EUROPEAN STANDARD

EN IEC 61098

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2024

ICS 13.280; 17.240

Supersedes EN 61098:2007

English Version

**Radiation protection instrumentation - Installed personnel
surface contamination monitors
(IEC 61098:2023)**

Instrumentation pour la radioprotection - Moniteurs fixes
pour la surveillance de la contamination de surface du
personnel
(IEC 61098:2023)

Strahlenschutz-Messgeräte - Fest installierte
Personenkontaminationsmonitore
(IEC 61098:2023)

This European Standard was approved by CENELEC on 2024-01-22. 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, Türkiye 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

EN IEC 61098:2024 (E)**European foreword**

This document (EN IEC 61098:2024) consists of the text of IEC 61098:2023 prepared by IEC/SC 45B "Radiation protection instrumentation" of IEC/TC 45 "Nuclear instrumentation".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2025-01-22
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2027-01-22

This document supersedes EN 61098:2007 and all of its amendments and corrigenda (if any).

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 61098:2023 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

ISO 11929 (series) NOTE Approved as EN ISO 11929 (series)

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-395	-	International Electrotechnical Vocabulary - Part 395: Nuclear instrumentation: Physical phenomena, basic concepts, instruments, systems, equipment and detectors	-	-
IEC 61000-4-2	-	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	-
IEC 61000-4-3	-	Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN IEC 61000-4-3	-
IEC 61000-4-5	-	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	-
IEC 61000-4-6	-	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	-	-
IEC 61000-4-8	-	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	-
IEC 61000-4-12	-	Electromagnetic Compatibility (EMC) - Part 4-12: Testing and measurement techniques - Ring wave immunity test	EN 61000-4-12	-
IEC 62706	-	Radiation protection instrumentation - Environmental, electromagnetic and mechanical performance requirements	-	-
ISO 8769	2020	Measurement of radioactivity - Alpha-, beta- and photon emitting radionuclides - Reference measurement standard specifications for the calibration of surface contamination monitor	EN ISO 8769	2022



IEC 61098

Edition 3.0 2023-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Radiation protection instrumentation – Installed personnel surface
contamination monitors**

**Instrumentation pour la radioprotection – Moniteurs fixes pour la surveillance de
la contamination de surface du personnel**

**THIS PUBLICATION IS COPYRIGHT PROTECTED****Copyright © 2023 IEC, Geneva, Switzerland**

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 300 terminological entries in English and French, with equivalent terms in 19 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC -**webstore.iec.ch/advsearchform**

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 300 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 19 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.



IEC 61098

Edition 3.0 2023-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Radiation protection instrumentation – Installed personnel surface
contamination monitors**

**Instrumentation pour la radioprotection – Moniteurs fixes pour la surveillance de
la contamination de surface du personnel**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 13.280; 17.240

ISBN 978-2-8322-6527-7

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	6
1 Scope.....	8
2 Normative references	8
3 Terms, definitions, units and symbols	9
3.1 Terms and definitions.....	9
3.2 Units	14
3.3 Symbols (see Table 1)	15
4 Classification of monitors.....	16
4.1 According to type of radiation to be measured	16
4.2 According to body surface being monitored.....	16
4.3 According to background compensation method	16
5 Design characteristics	16
5.1 Positioning of the person being monitored	16
5.2 Size of the person being monitored	16
5.3 Hand monitoring facilities	17
5.4 Foot monitoring facilities	17
5.5 Body monitoring facilities	17
5.6 Frisker	17
5.7 Visual display.....	18
5.7.1 For the user.....	18
5.7.2 For maintenance purposes	18
5.8 Audible indicators	18
5.9 Monitoring period.....	18
5.10 Ease of decontamination.....	18
5.11 Detectors used.....	19
5.12 Seismic consideration	19
6 Performance requirements and test procedures.....	19
6.1 General test procedure	19
6.1.1 Nature of tests	19
6.1.2 Tests performed under standard test conditions.....	19
6.1.3 Tests performed with variation of influence quantities.....	19
6.1.4 Type F influence test	20
6.1.5 Type S influence test	20
6.2 Functionality test.....	20
6.2.1 General	20
6.2.2 Pre-test	20
6.2.3 Post-test.....	21
6.3 Statistical fluctuations	21
6.4 Reference sources	21
6.5 Requirements for use of gas flow detectors.....	22
7 Radiation measurement characteristics	22
7.1 Variation of response with source position	22
7.1.1 General	22
7.1.2 For clothing or the body.....	22
7.1.3 For hand monitoring.....	27
7.1.4 For foot monitoring	28

7.1.5	Contamination measurement of cloth or body by friskers	30
7.2	Background.....	33
7.2.1	General	33
7.2.2	Subtraction of pre-determined background	33
7.2.3	Simultaneous subtraction of determined background	33
7.2.4	No background subtraction	33
7.2.5	Gamma monitoring systems.....	34
7.3	Detection limit (DL).....	34
7.3.1	General	34
7.3.2	For clothing or body.....	36
7.3.3	The effective instrument efficiency at the specific operating point	36
7.3.4	For hand monitoring.....	37
7.3.5	For foot monitoring	37
7.3.6	For frisker monitoring.....	38
7.4	Variation of response with energy	38
7.4.1	General	38
7.4.2	Beta.....	38
7.4.3	Alpha.....	40
7.4.4	Gamma.....	40
7.5	Response to other ionising radiations	41
7.5.1	General	41
7.5.2	Gamma radiation	42
7.5.3	Alpha radiation (for beta and gamma contamination monitoring assemblies).....	42
7.5.4	Beta or gamma radiation (for alpha contamination monitoring assemblies).....	42
7.6	Linearity of indication.....	42
7.6.1	Requirements	42
7.6.2	Method of test.....	43
7.7	Alarm threshold.....	43
7.7.1	General	43
7.7.2	Requirements	43
7.7.3	Method of test.....	43
8	Overload protection	43
8.1	Requirements	43
8.2	Method of test.....	43
9	Availability.....	44
9.1	Warm-up time	44
9.2	Power failure.....	44
10	Environmental requirements	44
10.1	General.....	44
10.2	Ambient temperature.....	44
10.2.1	Requirements	44
10.2.2	Method of test.....	44
10.3	Relative humidity	45
10.3.1	Requirements	45
10.3.2	Method of test.....	45
10.4	Atmospheric pressure	45
11	Mechanical requirements.....	45

11.1	General.....	45
11.2	Vibration test	45
11.2.1	Requirements	45
11.2.2	Method of test.....	46
11.3	Mechanical shock	46
11.3.1	Requirements	46
11.3.2	Method of test.....	46
12	Power and electromagnetic compatibility	46
12.1	Voltage and frequency	46
12.2	Electromagnetic compatibility.....	47
12.2.1	General	47
12.2.2	Electrostatic discharge	47
12.2.3	Radio-frequency (RF) Immunity	47
12.2.4	Radiated emissions	48
12.2.5	AC line powered monitor requirements	48
12.2.6	Immunity from conducted RF	49
12.2.7	Surges and ring waves	49
12.2.8	Magnetic fields	50
13	Storage	50
14	Documentation	50
14.1	Certificate	50
14.2	Operation and maintenance manual.....	51
14.3	Operational instructions	51
14.4	Type test report	51
Annex A	(informative) Explanation of the derivation of detection limit formula	56
A.1	General.....	56
A.2	In a case of taking into account a change in the background value between the background measurement and the contamination measurement.....	59
A.3	In a case of achieving background compensation simultaneously.....	61
Annex B	(informative) Phantoms for testing the body effect for gamma contamination body monitors	63
B.1	General.....	63
B.2	Phantoms building blocks	63
B.3	Range of phantoms.....	64
Annex C	(informative) Characterization of the error due to the background attenuation by the body.....	65
C.1	General.....	65
C.2	Standard background case.....	65
C.2.1	Test procedure	65
C.2.2	Result interpretation	65
C.2.3	Acceptance criteria	66
C.2.4	Important note	66
C.3	Increased background case	66
C.3.1	General	66
C.3.2	Polar response characterization.....	67
C.3.3	Test procedure of body attenuation effect.....	67
C.3.4	Result interpretation and acceptance criteria	67
Annex D	(informative) Characterization of the response to a carried gamma source	68
D.1	General.....	68

D.2 Test procedure.....	68
Bibliography.....	70
Figure 1 – Vertical position of radiation source	24
Figure 2 – Response curve composition by source position	25
Figure 3 – Centre planes of the detection volume	26
Figure 4 – Detector for hand monitoring.....	28
Figure 5 – Detector for foot monitoring.....	30
Figure 6 – Frisker (clothes)/Overhead detector	32
Figure B.1 – Size of slices	63
Figure B.2 – Assembled phantoms.....	64
Figure D.1 – Source positions for the head	68
Figure D.2 – Source positions for the body	69
Figure D.3 – Source positions for the legs	69
Table 1 – Symbols and abbreviate terms	15
Table 2 – Emission frequency range	48
Table 3 – Reference and standard test conditions.....	52
Table 4 – Tests performed under standard test conditions	52
Table 5 – Tests performed with variation of influence quantities.....	54
Table 6 – Test and sources.....	55
Table B.1 – Sizes of the set of phantoms	64

INTERNATIONAL ELECTROTECHNICAL COMMISSION

RADIATION PROTECTION INSTRUMENTATION – INSTALLED PERSONNEL SURFACE CONTAMINATION MONITORS

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

IEC 61098 has been prepared by subcommittee 45B: Radiation protection instrumentation, of IEC technical committee 45: Nuclear instrumentation. It is an International Standard.

This third edition cancels and replaces the second edition published in 2003. This edition constitutes a technical revision.

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

- a) Title is modified.
- b) As an alternative of small area sources, area sources are added to be used for methods of test with respect to the variation of response with source position, effective instrument efficiency, detection limit (DL), and variation of response with energy.
- c) Detection limit (DL) complies with the ISO 11929 series.
- d) Descriptions of influence quantities of type F and type S are added.
- e) Consistency with IEC 62706 is promoted for environmental requirements, mechanical requirements, electromagnetic compatibility and methods of test.
- f) Descriptions of overhead detectors are added.

- g) Descriptions of friskers are added with respect to the hand and foot monitoring.
- h) Figures are made easier to understand the relation between the detector position and the response, and the positional relation between the detector surface and the source.

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

Draft	Report on voting
45B/1020/FDIS	45B/1026/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, ISO/IEC Directives and 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/standardsdev/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,
- replaced by a revised edition, or
- amended

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

RADIATION PROTECTION INSTRUMENTATION – INSTALLED PERSONNEL SURFACE CONTAMINATION MONITORS

1 Scope

This document applies to contamination monitors that include warning assemblies and meters used for the monitoring of radioactive contamination on the surface of personnel whether they be clothed or not. The document is applicable only to that type of equipment where the user stays at the monitor. It is not applicable to the user passes quickly through the monitor. It is also not applicable to any peripheral equipment which can be associated with a particular type of equipment such as small article monitors. Probes (friskers) for measuring clothes or body by the person under monitoring or someone else are included in this document. The probes (friskers) are always connected to the monitor.

This document is applicable to the monitoring of the whole body (including the head), hands and feet, but parts of this document can be used for monitors designed for the monitoring of radioactive contamination on the hands and/or feet only. This document does not include tritium measurement.

This document is applicable to:

- installed personnel monitor (all clauses applicable);
- transportable personnel monitor (all clauses applicable);
- monitor for monitoring the hands (see the following clauses and subclauses: 2, 3, 4, 5, 6, 7.1.3, 7.2, 7.3.4, 7.4.2.2 b), 7.4.3, 7.4.4.1, 7.4.4.2, 7.4.4.3 b), 7.5, 7.6, 7.7, 8, 9, 10, 11, 12, 13 and 14);
- monitor for monitoring the feet (see the following clauses and subclauses: 2, 3, 4, 5, 6, 7.1.4, 7.2, 7.3.5, 7.4.2.2 c), 7.4.3, 7.4.4.1, 7.4.4.2, 7.4.4.3 c), 7.5, 7.6, 7.7, 8, 9, 10, 11, 12, 13 and 14); and
- monitor for monitoring the hands and feet (including probe (frisker) for whole body measurement) (see the following clauses and subclauses: 2, 3, 4, 5, 6, 7.1.3, 7.1.4, 7.1.5, 7.2, 7.3.4, 7.3.5, 7.3.6, 7.4.2.2 b), 7.4.2.2 c), 7.4.2.2 d), 7.4.3, 7.4.4.1, 7.4.4.2, 7.4.4.3 b), 7.4.4.3 c), 7.4.4.3 d), 7.5, 7.6, 7.7, 8, 9, 10, 11, 12, 13 and 14).

The object of this document is to define mechanical and operational characteristics, minimum performance characteristics and general test procedures for personnel monitors.

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.

IEC 60050-395, *International Electrotechnical Vocabulary (IEV) – Part 395: Nuclear instrumentation – Physical phenomena, basic concepts, instruments, systems, equipment and detectors*, available at www.electropedia.org

IEC 61000-4-2, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electronic discharge immunity test*.

IEC 61000-4-3, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61098:2023 © IEC 2023

– 9 –

IEC 61000-4-5, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61000-4-8, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measuring techniques – Power frequency magnetic field immunity test*

IEC 61000-4-12, *Electromagnetic compatibility (EMC) – Part 4-12: Testing and measuring techniques – Ring wave immunity test*

IEC 62706, *Radiation protection instrumentation – Recommended climatic, electromagnetic and mechanical performance requirements and methods of tests*

ISO 8769:2020, *Measurement of radioactivity – Alpha-, beta- and photon emitting radionuclides – Reference measurement standard specifications for the calibration of surface contamination monitors*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN