



SLOVENSKI STANDARD
SIST EN 1837:1999/kprA1:2009

01-april-2009

Varnost strojev - Integralna razsvetljava strojev

Safety of machinery - Integral lighting of machines

Sicherheit von Maschinen - Maschinenintegrierte Beleuchtung

Sécurité des machines - Eclairage intégré aux machines

Ta slovenski standard je istoveten z: EN 1837:1999/prA1

ICS:

13.110	Varnost strojev	Safety of machinery
91.160.10	Notranja razsvetljava	Interior lighting

SIST EN 1837:1999/kprA1:2009 **en,fr**

EUROPEAN STANDARD
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English Version

Safety of machinery - Integral lighting of machines

Sécurité des machines - Eclairage intégré aux machines

Sicherheit von Maschinen - Maschinenintegrierte
Beleuchtung

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 169.

This draft amendment A1, if approved, will modify the European Standard EN 1837:1999. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Foreword

This document (EN 1837:1999/prA1:2009) has been prepared by Technical Committee CEN/TC 169 “Light and lighting”, the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document.

EN 1837:1999/prA1:2009 (E)**1 Modification to Clause 2, Normative references**

Replace the first paragraph with the following text:

"The following referenced documents are indispensable for the application of this document. For dated references only the cited applies. For undated references, the last edition of the referenced document (including any amendments) applies."

Add the following references:

"EN ISO 12100-1:2003, *Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles (ISO 12100-2:2003)*

EN 1838, *Lighting applications – Emergency lighting*".

Delete the following references:

"EN 1070:1998, *Safety of machinery – Terminology*

EN 60598, *Luminaires*".

Replace the reference to prEN 12464 with the following:

"EN 12464-1:2002, *Light and lighting – Lighting of work places – Part 1: Indoor work places*

EN 12464-2, *Light and lighting – Lighting of work places – Part 2: Outdoor work places*".

Replace the reference to prEN 12665 with the following:

"EN 12665:2002, *Light and lighting – Basic terms and criteria for specifying lighting requirements*".

2 Modification to Clause 3, Definitions

Replace the heading of Clause 3 with the following:

"Terms and definitions".

Replace the first paragraph with the following:

"For the purposes of this document, the terms and definitions given in EN 12464-1:2002 and EN 12665:2002 together with the following apply."

In definition 3.1, replace "[EN 1070: 1998]" with "[EN ISO 12100-1:2003]".

Add the following new definition 3.3:

"3.3**Intended use of a machine**

Use of a machine in accordance with the information provided in the user information (see EN ISO 12100-1:2003, 3.22)".

3 Modifications to Clause 4, Lighting requirements

Replace the third and fourth paragraphs of 4.1 with the following:

"The lighting requirements specified in this standard are based on average difficulty of visual tasks, found in the work space during intended use of the machine (normal operation, abnormal operation, servicing).

For specific tasks, reference shall be made to the relevant standards on work place lighting (EN 12464-1 and EN 12464-2)"

Replace the second paragraph of 4.2 with the following:

"In general a maintained illuminance of at least 500 lx with a minimum uniformity of 0,7 on the task area shall be provided. If there is more than one task area in/or at a machine (e.g. in/or at large machines), each task area shall be considered separately. The immediate surrounding areas shall have a maintained illuminance of at least 300 lx with a uniformity of at least 0,3."

Add the following note at the end of 4.2:

"NOTE Lighting controls can be helpful for increasing and reducing the illuminance level, e.g. by dimming or switching or by mechanical adjustment."

Add the following new subclauses 4.7 and 4.8:

"4.7 Ergonomic principles

Ergonomic principles shall be taken into consideration for integral lighting systems of a machine e.g.

- adjustable luminaires shall be stable in their position, but easy to move if necessary, particularly if changing from seating to standing position;
- actuators shall be adequate for the intended use.

4.8 Emergency lighting

Emergency lighting shall be provided in large machines that may be operational at times when the supply to the normal lighting of the machinery has failed (see EN 1838)."

4 Modifications to 5.2, Luminaires

Replace the text of d) with the following:

"facilitate ease of service particularly ease of cleaning "

Add the following notes at the end of 5.2:

"NOTE 1 Safety requirements for luminaires are provided in other standards, particularly in EN 60598-1.

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NOTE 2 Some additional requirements of luminaires may be found in other standards (e. g. for protection classes in EN 60529)."

5 Modifications to Clause 6, Verification procedures

Add the following note after indent c):

"NOTE The test report should include all relevant data, e. g.

- average illuminances in the task area(s) and in the immediate surrounding area(s) and the uniformities of the illuminances in these areas,
- the positions of the luminaires in or at the machine,
- confirmation that there is no disturbing glare under intended use conditions,
- confirmation that there is no flicker and no stroboscopic effects under intended use conditions,
- description of the intended use conditions."

Add the following paragraphs after indent d):

"The performance of the lighting system shall be checked regularly, at least once a year, in accordance with 6 d) and appropriate action shall be taken.

The lighting system shall be cleaned and maintained as given in the machine's maintenance schedule in accordance with 6 d)."

6 Deletion of Annex B

Delete Annex B in its entirety.

7 Modification to Annex ZA

Replace the existing Annex ZA with the following:

"

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive for Machinery 98/37/EC amended by Directive 98/79/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements – 1.1.4 of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard."