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01-december-2023

Elementi za priključitev svetilk za gospodinjstva in podobne namene - 1. del:
Splošne zahteve

Devices for the connection of luminaires for household and similar purposes - Part 1:
General requirements

Betriebsmittel für den Anschluss von Leuchten für Haushalt und ähnliche Zwecke - Teil
1: Allgemeine Anforderungen

Dispositifs de connexion pour luminaires pour usage domestique et analogue - Partie 1:
Exigences générales

Ta slovenski standard je istoveten z: prEN IEC 61995-1:2023

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TITLE:

Devices for the connection of luminaires for household and similar purposes - Part 1: General requirements

PROPOSED STABILITY DATE: 2030

NOTE FROM TC/SC OFFICERS:

Revision of IEC 61995-1 - Proposal to include requirements for additional suspension means, to allow different wiring capacities and to add the option of floating type DCL outlets. In addition, it was agreed to align if needed to IEC60884-1 for relevant clauses.

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**DEVICES FOR THE CONNECTION OF LUMINAIRES
FOR HOUSEHOLD AND SIMILAR PURPOSES –**

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Part 1: General requirements

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FOREWORD

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133 International Standard IEC 61995-1 has been prepared by subcommittee 23B: Plugs, socket-
134 outlets and switches, of IEC technical committee 23: Electrical accessories.

135 This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

136 IEC 61995 consists of the following parts, under the general title *Devices for the connection of*
137 *luminaires for household and similar purposes*:

138 Part 1: General requirements

139 Part 2: Standard sheets

140 The committee has decided that the contents of the base publication and its amendment will
141 remain unchanged until the stability date indicated on the IEC web site under
142 "http://webstore.iec.ch" in the data related to the specific publication. At this date, the
143 publication will be

- 144 • reconfirmed,
- 145 • withdrawn,
- 146 • replaced by a revised edition, or
- 147 • amended.

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DEVICES FOR THE CONNECTION OF LUMINAIRES FOR HOUSEHOLD AND SIMILAR PURPOSES –

Part 1: General requirements

1 Scope

This document applies to devices for the connection of luminaires (DCL) intended for household and similar purposes, for the electrical connection of fixed luminaires of class I or class II to final circuits rated at not more than 16 A without mechanical support for the luminaires incorporated in the plug/outlet interface. The DCL retention mechanisms are not intended to support the weight of the luminaires.

DCL plugs and outlets have a rated current of 6 A.

DCL outlets have an earthing contact.

The rated voltage is 125 V or 250 V at 50/60 Hz.

DCL with additional suspension means are limited to a maximum mass of 5 kg.

DCL plugs and DCL outlets complying with this document are suitable for use at ambient temperatures not normally exceeding +40 °C, but their average over a period of 24 h does not exceed +35 °C, with a lower limit of the ambient air temperature of –5 °C.

DCLs are intended for use according to their IP rating as specified in IEC 60529.

This document gives additional requirements for DCL accessories provided with insulation-piercing terminals, see Annex B (normative).

2 Normative references

The following referenced documents are indispensable for the application 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 60068-2-31:2008, *Environmental testing – Part 2-31: Tests – Test Ec: Rough handling shocks, primarily for equipment-type specimens*

IEC 60068-2-75:2014, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer test*

IEC 60112:2020, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60227-5:2011, *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V – Part 5: Flexible cables (cords)*

IEC 60417-DB:¹⁾, *Graphical symbols for use on equipment*

IEC 60529:1989/AMD1:1999/AMD2:2013, *Degrees of protection provided by enclosures (IP Code)*

IEC 60695-2-11:2021, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products*

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

¹⁾ "DB" refers to the IEC on-line database.

187 IEC 61995-2:202X - *Devices for the connection of luminaires for household and similar*
188 *purposes - Part 2: Standard sheets for DCL*

189 ISO/IEC Guide 51:2014, *Safety aspects – Guidelines for their inclusion in standards*

190 **3 Terms and definitions**

191 For the purposes of this document, the following terms and definitions apply.

192 ISO and IEC maintain terminological databases for use in standardization at the following
193 addresses:

- 194 • IEC Electropedia: available at <http://www.electropedia.org/>
- 195 • ISO Online browsing platform: available at <http://www.iso.org/obp>

196 Note 1 to entry Where the terms voltage and current are used, they imply RMS values, unless otherwise specified.

197 Note 2 to entry Throughout this document the word "earthing" is used for "protective earthing".

198 Note 3 to entry The term "accessory" is used as a general term covering DCL plugs and DCL outlets.

199 **3.1**

200 **device for connecting a luminaire DCL**

201 system comprising a DCL outlet and a DCL plug providing a fixed luminaire with electrical
202 connection to and disconnection from a fixed installation

203 Note to entry The designations DCL, DCL outlet or DCL plug, are used when it is necessary to specify particular
204 requirements and test specifications.

205 **3.2**

206 **DCL outlet**

207 device for connecting a luminaire having socket-contacts designed to engage with the pins of
208 a DCL plug and having terminals for the connection of cable

209 **3.3**

210 **DCL plug**

211 device for connecting a luminaire having pins designed to engage with the contacts of a DCL
212 outlet

213 **3.4**

214 **rewirable DCL plug**

215 DCL plug so constructed that the flexible cable can be replaced

216 **3.5**

217 **non-rewirable DCL plug**

218 DCL plug so constructed that it forms a complete unit with the flexible cable after connection
219 and assembly by the manufacturer of the plug (see also 14.1)

220 **3.6**

221 **moulded-on DCL plug**

222 non-rewirable DCL plug, the manufacture of which is completed by insulating material
223 moulded around pre-assembled component parts and the terminations of the flexible cable

224 **3.7**

225 **rated voltage**

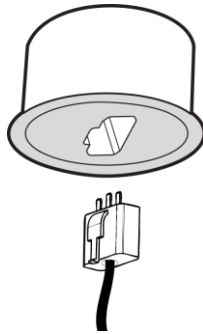
226 the voltage assigned by the manufacturer for a specified operating condition of an accessory

227 [SOURCE: IEV 442-01-03]

228 **3.8**
 229 **rated current**
 230 the current assigned by the manufacturer for specified operating condition of an accessory

231 [SOURCE: IEC 442-01-02]

232 **3.9**
 233 **fixed DCL outlet**
 234 DCL outlet intended to be installed at a fixed location and be connected to fixed wiring



235

236 **Figure 1 Example of fixed DCL outlet and plug**

237 **3.10**
 238 **mounting box**
 239 box in or on a wall or ceiling, etc., for flush or surface application, intended to house a DCL
 240 outlet

241 **3.11**
 242 **terminal**
 243 insulated or non-insulated connecting device intended for reusable electrical connection of the
 244 external conductors

245 **3.12**
 246 **termination**
 247 insulated or non-insulated connecting device intended for non-reusable electrical connection
 248 of the external conductors

249 **3.13**
 250 **clamping unit**
 251 part(s) of the terminal necessary for the mechanical clamping and the electrical connection of the
 252 conductor(s), including the parts which are necessary to ensure correct contact pressure

253 [SOURCE: IEC 442-06-12]

254 **3.14**
 255 **screw-type terminal**
 256 terminal for the connection and subsequent disconnection of one conductor or the
 257 interconnection and subsequent disconnection of two or more conductors, the connection
 258 being made, directly or indirectly, by means of screws or nuts of any kind

259 Note to entry The terms of definitions 3.14 to 3.17 are examples of screw-type terminals.

260 **3.15**
 261 **pillar terminal**
 262 screw-type terminal in which the conductor is inserted into a hole or cavity, where it is clamped under
 263 the end of the screw or screws

264 Note to entry The clamping pressure may be applied directly by the end of the screw or through an intermediate
 265 clamping member to which pressure is applied by the end of the screw

266 **3.16**
 267 **stirrup terminal**
 268 pillar terminal where the clamping pressure is applied indirectly by an intermediate clamping
 269 member when the screw is tightened

270 **3.17**
 271 **stud terminal**
 272 screw-type terminal in which the conductor is clamped under a nut

273 Note to entry The clamping pressure may be applied directly by a suitably shaped nut or through an intermediate
 274 part, such as a washer, clamping plate or anti-spread device

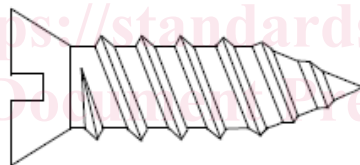
275 **3.18**
 276 **screw-head terminal**
 277 screw-type terminal in which the conductor is clamped under the head of the screw

278 Note to entry The clamping pressure may be applied directly by a suitably shaped nut or through an intermediate
 279 part, such as a washer, clamping plate or anti-spread device

280 **3.19**
 281 **screwless-type terminal**
 282 connecting device for the connection and subsequent disconnection of a rigid (solid or
 283 stranded) or flexible conductor or the interconnection of two or more conductors capable of
 284 being dismantled, the connection being made, directly or indirectly, by means of springs, parts
 285 of angled, eccentric or conical form, etc., without special preparation of the conductor
 286 concerned, other than removal of insulation

287 **3.20**
 288 **thread-forming screw**
 289 screw having an uninterrupted thread, which by screwing in, forms a thread by displacing material

290 Note to entry An example of a thread-forming screw is shown in Figure 2.



IEC 1317/02

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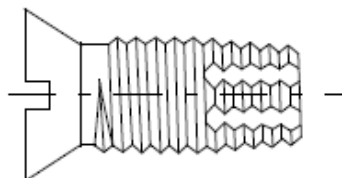
Figure 2 – Example of thread-forming screw

292

293 **3.21**
 294 **thread-cutting screw**
 295 screw having an uninterrupted thread, which by screwing in, forms a thread by removing material

296 Note to entry An example of a thread-cutting screw is shown in Figure 3.

297



IEC 1318/02

298

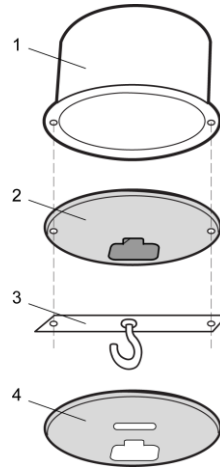
Figure 3 – Example of thread-cutting screw

299

300 **3.22**
 301 **loop terminal**
 302 supply terminal intended for the interconnection of live conductors

303 **3.23**
 304 **DCL temporary lampholder**
 305 independent lampholder integral with a DCL plug, designed in order to be temporarily connected to a
 306 DCL outlet

307 **3.24**
 308 **additional suspension means**
 309 means comprising any necessary component (hooks, brackets, etc) which is a part of the DCL, used
 310 to fix the luminaire



311 **Key**
 312
 313 1 Mounting box (flush-type or surface-type)
 314 2 Fixed DCL outlet
 315 3 Additional suspension means
 316 4 Cover-plate

317 **Figure 4 – Example of additional suspension means**

318
 319 **3.25**
 320 **base**
 321 part of the DCL outlet supporting the outlet contacts

322 **3.26**
 323 **live parts**
 324 conductor or conductive part intended to be energized in normal use, including a neutral conductor,
 325 but by convention, not a PEN conductor

326 [SOURCE: IEV 826-12-08]

327 **3.27**
 328 **cord anchorage**
 329 part of an accessory which has the ability to limit the displacement of a fitted flexible cable against pull,
 330 push and turning forces

331 **3.28**
 332 **main part**
 333 assembly consisting of the base and other parts

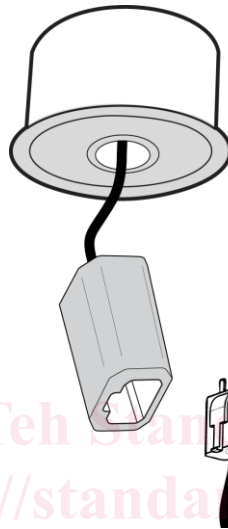
334 Note to entry This assembly is not intended to be dismantled at any time after manufacture

335 **3.29**
 336 **protective earthing**
 337 **protective grounding (US)**
 338 earthing a point or points in a system or in an installation or in equipment, for purposes of electrical
 339 safety

340 [SOURCE: IEC 195-01-11]

341 **3.30**
 342 **type test**
 343 test of one or more devices made to a certain design to show that the design meets certain
 344 specifications

345 **3.31**
 346 **floating type DCL outlet**
 347 DCL outlet not intended to be fixed to a mounting box



348

349 **Figure 5 Example of floating type DCL outlet**

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351 **3.32**
 352 **stroke**
 353 insertion or withdrawal of the DCL plug

354 **4 General requirements**

355 DCL systems shall be so designed and constructed that in normal use their performance is reliable,
 356 and safety is achieved by reducing risk to a tolerable level, as defined in ISO/IEC Guide 51.

357 *Compliance is checked by meeting all the relevant requirements and tests specified.*

358 **5 General remarks on tests**

359 **5.1 General**

360 Tests shall be made to prove compliance with the requirements laid down in this standard, where
 361 applicable.

362 Tests according to this standard are type tests.

363 **5.2 Products arrangement during test**

364 Unless otherwise specified, the specimens are tested as delivered and under normal
365 conditions of use.

366 Non-rewirable DCL plugs and non-rewireable DCL outlets are tested with the type and size of
367 flexible cable as delivered.

368 DCL plugs and DCL outlets are tested separately, unless otherwise specified.

369 *The neutral is treated as a pole.*

370 *Flush and semi-flush type DCL-outlets shall be tested, if appropriate, when installed in a box*
371 *complying with the applicable standard sheet(s), if any. In case the DCL-outlet is manufactured for a*
372 *specific box, the tests shall be conducted when the DCL-outlet is installed in the corresponding box as*
373 *specified by the manufacturer.*

374 **5.3 Ambient test condition**

375 Unless otherwise specified, the tests are carried out in the order of the clauses, at an ambient
376 temperature between 15 °C and 35 °C.

377 It is recommended that the tests are made at an ambient temperature of (20 ± 5) °C.

378 **5.4 Specimens needed for the tests**

379 *Unless otherwise specified, three specimens are subjected to all the relevant tests.*

380 The number of specimens required for the tests shall be as specified in Table 1.

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