SLOVENSKI STANDARD
SIST EN 60604:2003

01-marec-2003

Topflash/Flipflash photographic flash lamp array (IEC 60604:1980)

'Topflash/Flipflash' photographic flash lamp array

Blitzlampensystem 'Topflash/Flipflash'

Dispositif 'Topflash/Flipflash' de lampes 'éclair' pour photographie

Ta slovenski standard je istoveten z: **EN 60604:1993**

ICS:

37.040.10	Fotografska oprema. Projektorji	Photographic equipment. Projectors

SIST EN 60604:2003 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60604

April 1993

UDC 429.771.052.5-83-181.1.001.2.004.12/.14.621.3-213::620.17

Supersedes HD 430 S1:1983

Descriptors: Electrical photographic equipment for flashlighting, dimensions, requirements, properties, application, mechanical testing

English version

"Topflash/Flipflash" photographic flash lamp array

(IEC 604:1980)

Dispositif "Topflash/Flipflash" de lampes éclair pour photographie
(CEI 640:1980)

Blitzlampensystem "Topflash/Flipflash"
(IEC 604:1980)

This European Standard was approved by CENELEC on 1993-03-09. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Foreword

At the request of CENELEC Reporting Secretariat SR 34A, HD 430 S1:1983 (IEC 604:1980) was submitted to the CENELEC voting procedure for conversion into a European Standard.

The text of the International Standard was approved by CENELEC as EN 60604 on 9 March 1993.

The following dates were fixed:

— latest date of publication of an identical national standard (dop) 1994-03-01

— latest date of withdrawal of conflicting national standards (dow) —

Contents

1 Scope

This standard establishes limits for dimensions and other physical characteristics necessary to ensure interchangeability of "Topflash/Flipflash" arrays.

2 Layout and dimensions

2.1 Layout

The array is a multi-lamp assembly with the lamps arranged in two groups.

The lamps at one end of the array operate independently of those at the other end.

The layout of the array is such as to provide a flash extender.

2.2 Dimensions

Dimensions of the array shall be as shown in Appendix A.

Dimensions of the plug part shall be as shown in Appendix B.

Dimensions of the contacts shall be as shown in Appendix C.

NOTE The dimensions shown apply to arrays in a new, unused condition. Lamp flashing may cause some distortion of some parts.

3 Operation

After insertion of the array in a camera, the top group of lamps, i.e. those remote from the camera, will flash in sequence at each successive shutter operation. When the top group of lamps has been used, the array has to be removed, inverted and replaced, in order that the remaining group of lamps may be used.

The flashing of the lamps in the upper group only provides the flash extender feature.

4 Requirements

4.1 Flashing energy

The array shall flash when provided with an energy pulse having the following characteristics:

— A minimum of 2 000 V peak with a duration of between 1 and 10 μs, measured across a capacitive load of 17.5 pF. The duration is measured from 0 V to 0 V of the pulse.

— A minimum of 140 nC in the first half current wave, delivered to a 5 000 Ω resistance load with a 17.5 pF capacitive load in parallel, in not less than 2 μs and not more than 5 μs from the start of the wave.

— If the decay time of the first half wave of the voltage pulse is longer than 5 μs, the 140 nC charge shall be delivered at or before 5 μs.

4.2 Flashing rate

The array shall be designed for use at intervals as short as 2 s between flashes.

4.3 Contacts

The contacts of the array shall be designed to withstand at least 16 insertions into a socket having three bur-free contacts each of which exerts a force of 1.1 N (4 ozf).

4.4 Sequencing

The array shall incorporate a built-in sequencing circuit. When the first lamp flashes, the second lamp shall be automatically connected into the firing circuit ready for flashing. When the second lamp flashes, the third lamp shall be connected into the firing circuit and so on until the last lamp is fired when the sequencing then stops.

NOTE Failure of any lamp to flash prevents automatic firing of any lamps remaining in that part of the array. However, some designs incorporate means to activate the circuit manually so as to enable such lamps to be flashed normally or to flash more lamps simultaneously.

4.5 Enclosure

— The array shall withstand a squeezing force of 8.9 N (2 lbf) applied to any two opposite sides by means of two plates of 16 mm (0.63 in) diameter.

After this test, the array shall still meet all the requirements of the standard.

— With one plug of the array clamped rigidly in a socket-like fixture, the array shall withstand an axial pull of 53.4 N (12 lbf) and at the same time withstand a sideways force applied consecutively on each of the four sides within 12.7 mm (0.5 in) of its unclamped end.

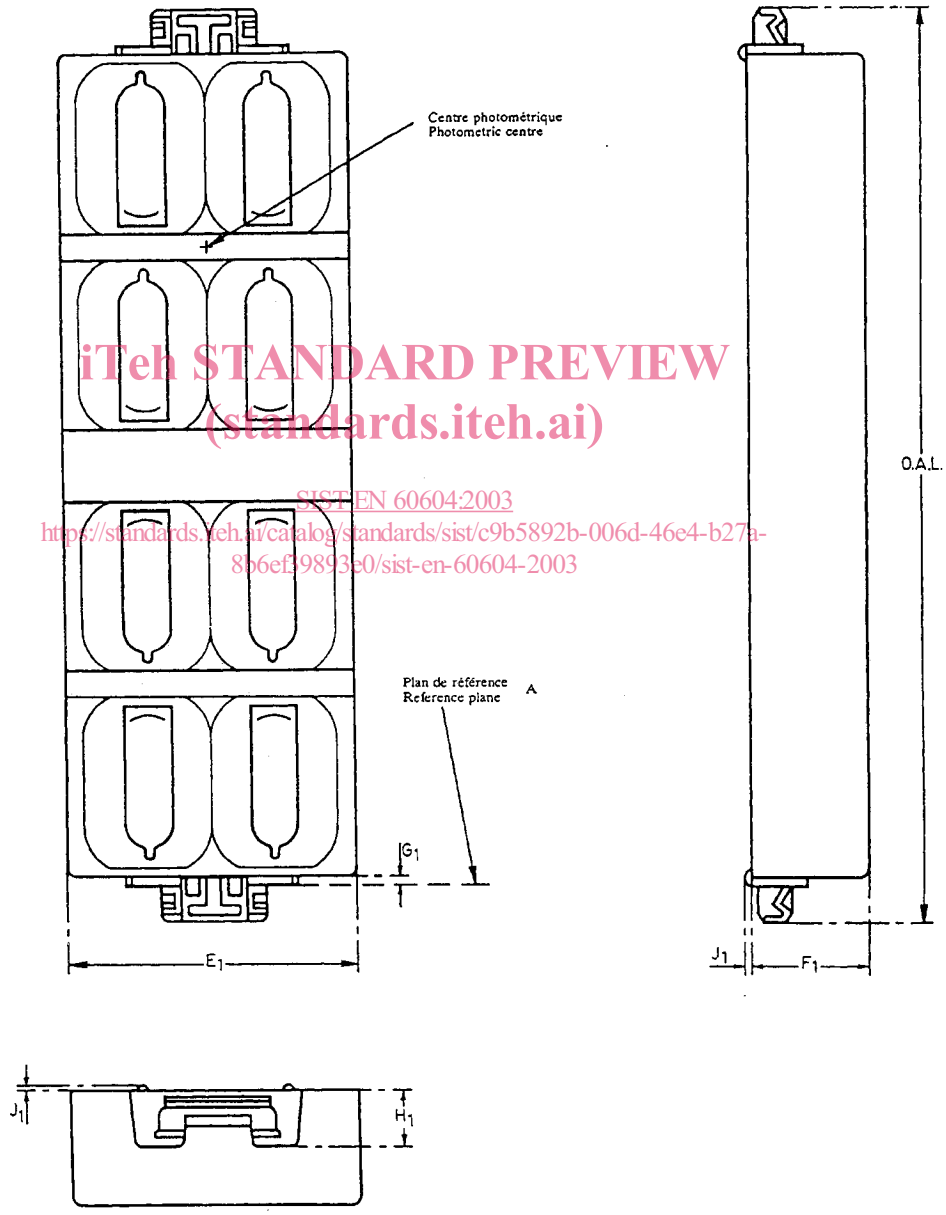
The sideways force shall be such that the moment of force about a fulcrum passing through the reference plane A at the clamped end is 0.44 Nm (63 ozf in).

It shall be possible to carry out this test without causing a defect that would result in picture failure.

NOTE The specification of the above test forces does not imply that the camera socket should be capable of retaining an array when it is subjected to those forces.

Appendix A	"Topflash/Flipflash" Array dimensions	Page 1

Dimensions in millimetres
The drawing is only for the purpose of showing the most important dimensions.



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Dimensions in millimetres

Standard dimensions			Nearest equivalents in inches	
Dimension	Min.	Max.	Min.	Max.
O.A.L.	—	139.7	—	5.5
E_1	—	44.45	—	1.75
F_1	—	17.8	—	0.7
G_1 (2)	1.02	—	0.04	—
H_1 (1)(2)	—	8.69	—	0.342
J_1 (2)(3)	—	0.89	—	0.035

(1) Dimension H_1 includes the thickness of any welded cover fixing tab.
(2) Dimensions H_1 and J_1 apply only within dimension G_1.
(3) Dimension J_1 applies only within dimension SS_2 of the plug — see Appendix B.