

INTERNATIONAL  
STANDARD

**ISO**  
**8581**

First edition  
1994-03-15

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**Photography — Electronic flash  
equipment — Connectors to synchro-cord**

*Photographie — Flashes électroniques — Connexion au cordon de  
synchronisation*



Reference number  
ISO 8581:1994(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8581 was prepared by Technical Committee ISO/TC 42, *Photography*.

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## Introduction

The rapid increase in demand for electronic flash equipment has resulted in the enormous production of an unlimited number of types of electronic photoflash equipment, and the lack of International Standards for connectors between the flash unit and the synchro-cord to camera shutters has resulted in the proliferation of new designs of connectors which has continued to grow at an alarming rate. In 1973, ISO/TC 42 decided to develop a standard for the above object.

The aim of this International Standard is to minimize the faulty connection of plugs by amateur photographers and also to reduce the number of types of connectors used for electronic flash equipment.

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# Photography — Electronic flash equipment — Connectors to synchro-cord

## 1 Scope

This International Standard specifies the electrical connectors (plugs and sockets) to be used for electronic photoflash equipment. It gives a limited number of connectors and the dimensions to be used for the connection between flash unit and flash synchro-cords. It does not cover those connectors which are intended for the connection of a mains supply to the flash equipment (see IEC 83 and IEC 320), nor those intended for the connection of hand-held cameras to the flash equipment synchro-cord (see ISO 519).

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements

based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 519:1992, *Photography — Hand-held cameras — Flash-connector dimensions*.

IEC 83:1975, *Plugs and socket-outlets for domestic and similar general use — Standards*.

IEC 320:1981, *Appliance couplers for household and similar general purposes*.

## 3 Types and dimensions

The limited types and dimensions of the connectors are given in figures 1 to 4 and tables 1 to 4.

The +, **N** and — symbols designate electrical polarity.

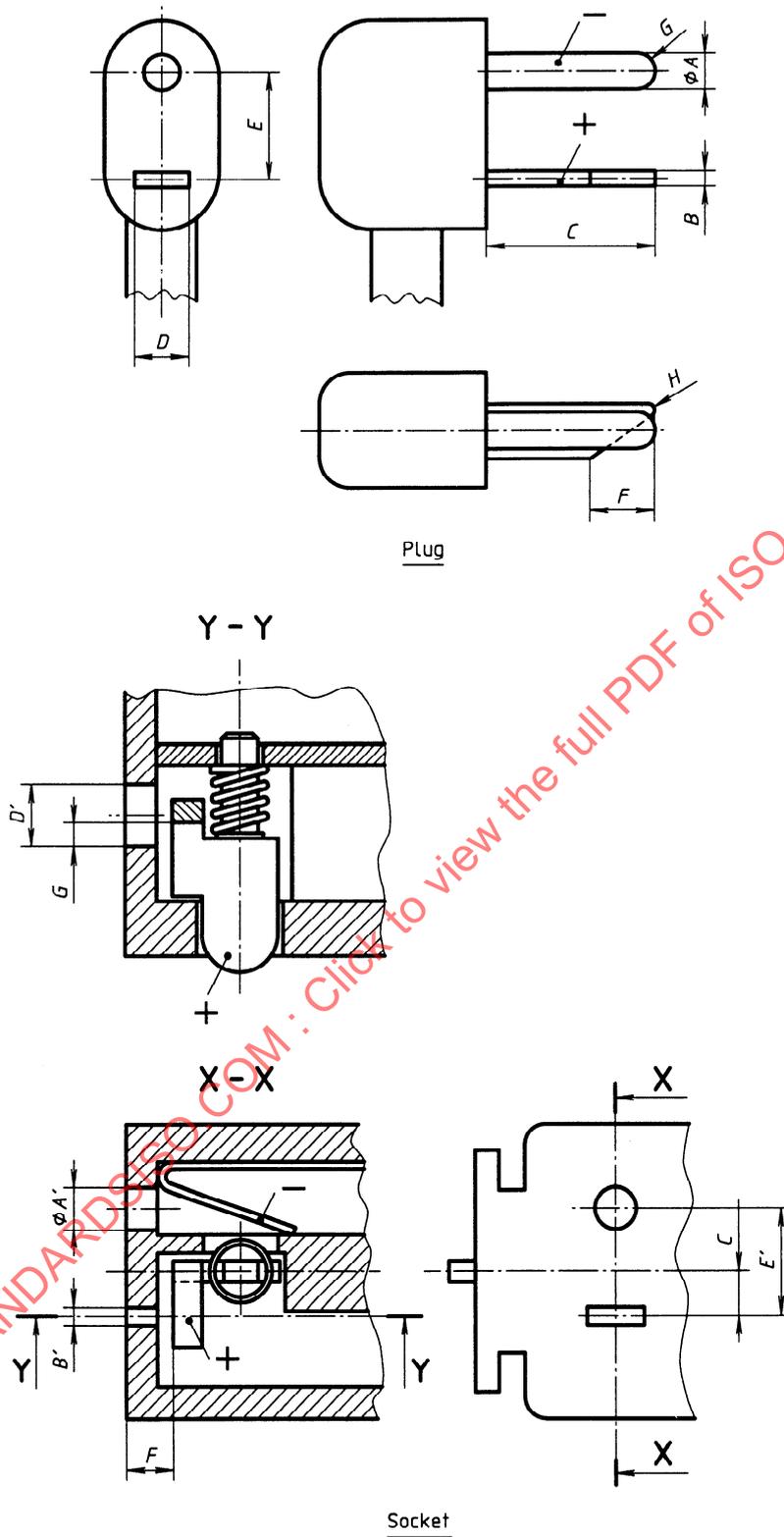


Figure 1 — "Type 1" plug and socket

Table 1 — Dimensions for "type 1" plug and socket

Plug		Socket	
Dimension	mm	Dimension	mm
<i>A</i>	2,5 $\begin{smallmatrix} 0 \\ -0,05 \end{smallmatrix}$	<i>A'</i>	2,7 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$
<i>B</i>	1,0 $\begin{smallmatrix} 0 \\ -0,05 \end{smallmatrix}$	<i>B'</i>	1,2 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$
<i>C</i>	12,5	<i>C</i>	3,5
<i>D</i>	4,0 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	<i>D'</i>	4,2 $\begin{smallmatrix} +0,2 \\ 0 \end{smallmatrix}$
<i>E</i>	8,0 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	<i>E'</i>	8,0 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$
<i>F</i>	5,5	<i>F</i>	3,5
<i>G</i>	1,25	<i>G</i>	1,75
<i>H</i>	0,75		

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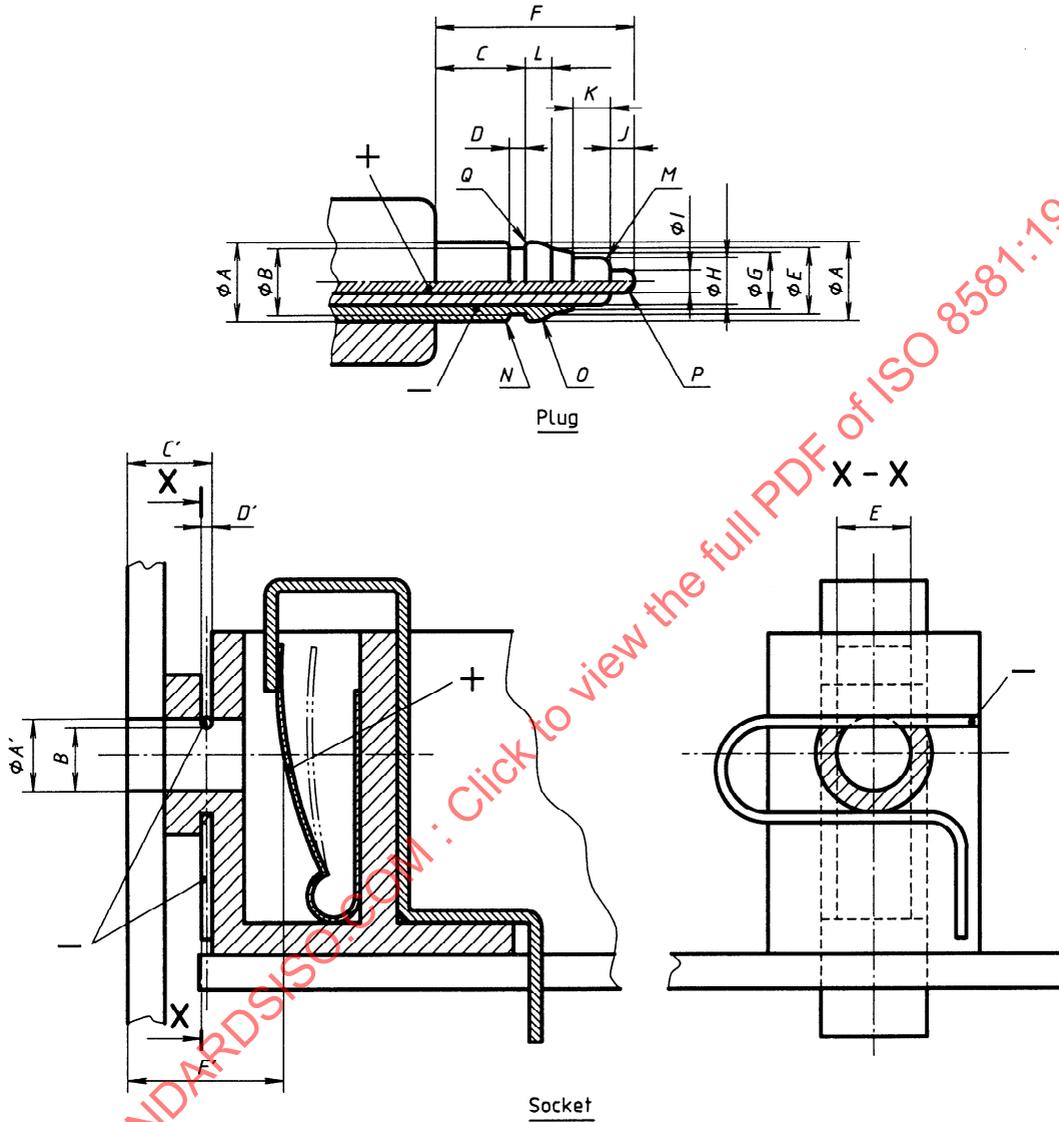


Figure 2 — "Type 2" plug and socket

Table 2 — Dimensions for "type 2" plug and socket

Plug		Socket	
Dimension	mm	Dimension	mm
<i>A</i>	3,0 $\begin{smallmatrix} +0,015 \\ -0,035 \end{smallmatrix}$	<i>A'</i>	3,1 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$
<i>B</i>	2,5 ± 0,03	<i>B</i>	2,55 ± 0,05
<i>C</i>	3,4 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$	<i>C'</i>	3,4 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$
<i>D</i>	0,6	<i>D'</i>	0,6 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$
<i>E</i>	2,5	<i>E</i>	3,0 min.
<i>F</i>	7,6 ± 0,2	<i>F'</i>	6,0
<i>G</i>	2,15 ± 0,05		
<i>H</i>	1,74 $\begin{smallmatrix} 0 \\ -0,05 \end{smallmatrix}$		
<i>I</i>	0,83 ± 0,025		
<i>J</i>	0,9		
<i>K</i>	1,4		
<i>L</i>	1,0		
<i>M</i>	0,4		
<i>N</i>	0,2		
<i>O</i>	1,0		
<i>P</i>	0,4		
<i>Q</i>	0,2		

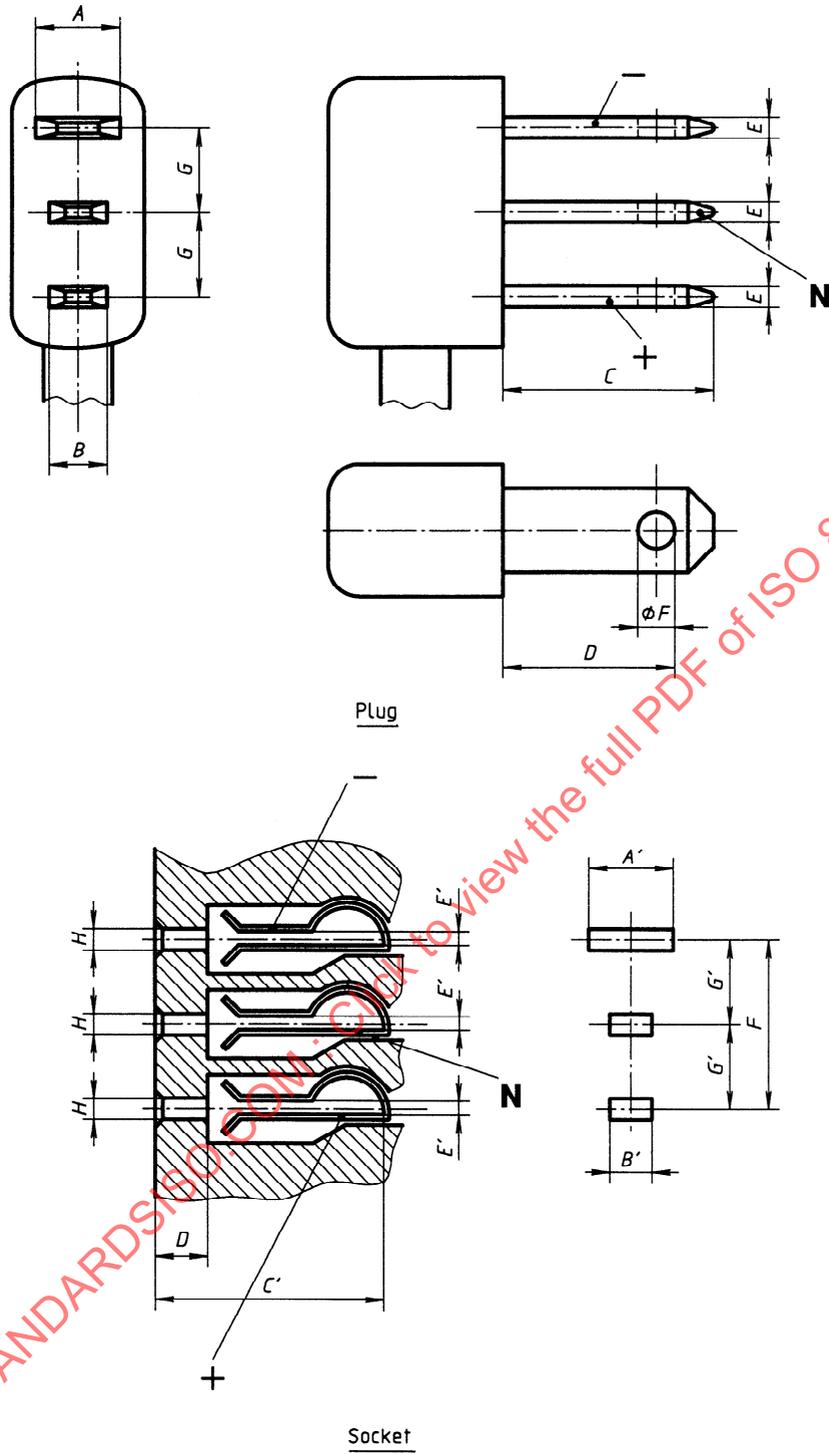


Figure 3 — "Type 3" plug and socket

Table 3 — Dimensions for "type 3" plug and socket

Plug		Socket	
Dimension	mm	Dimension	mm
<i>A</i>	6,35 $\begin{smallmatrix} 0 \\ -0,15 \end{smallmatrix}$	<i>A'</i>	6,5 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$
<i>B</i>	4,5 $\begin{smallmatrix} 0 \\ -0,15 \end{smallmatrix}$	<i>B'</i>	5,0 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$
<i>C</i>	14,0 $\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	<i>C'</i>	17,0
<i>D</i>	11,0 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	<i>D</i>	
<i>E</i>	1,5 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	<i>E'</i>	1,0
<i>F</i>	2,0 ± 0,1	<i>F</i>	12,5 $\begin{smallmatrix} 0 \\ -0,15 \end{smallmatrix}$
<i>G</i>	6,25 $\begin{smallmatrix} 0 \\ -0,15 \end{smallmatrix}$	<i>G'</i>	6,25
		<i>H</i>	2,0 $\begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$

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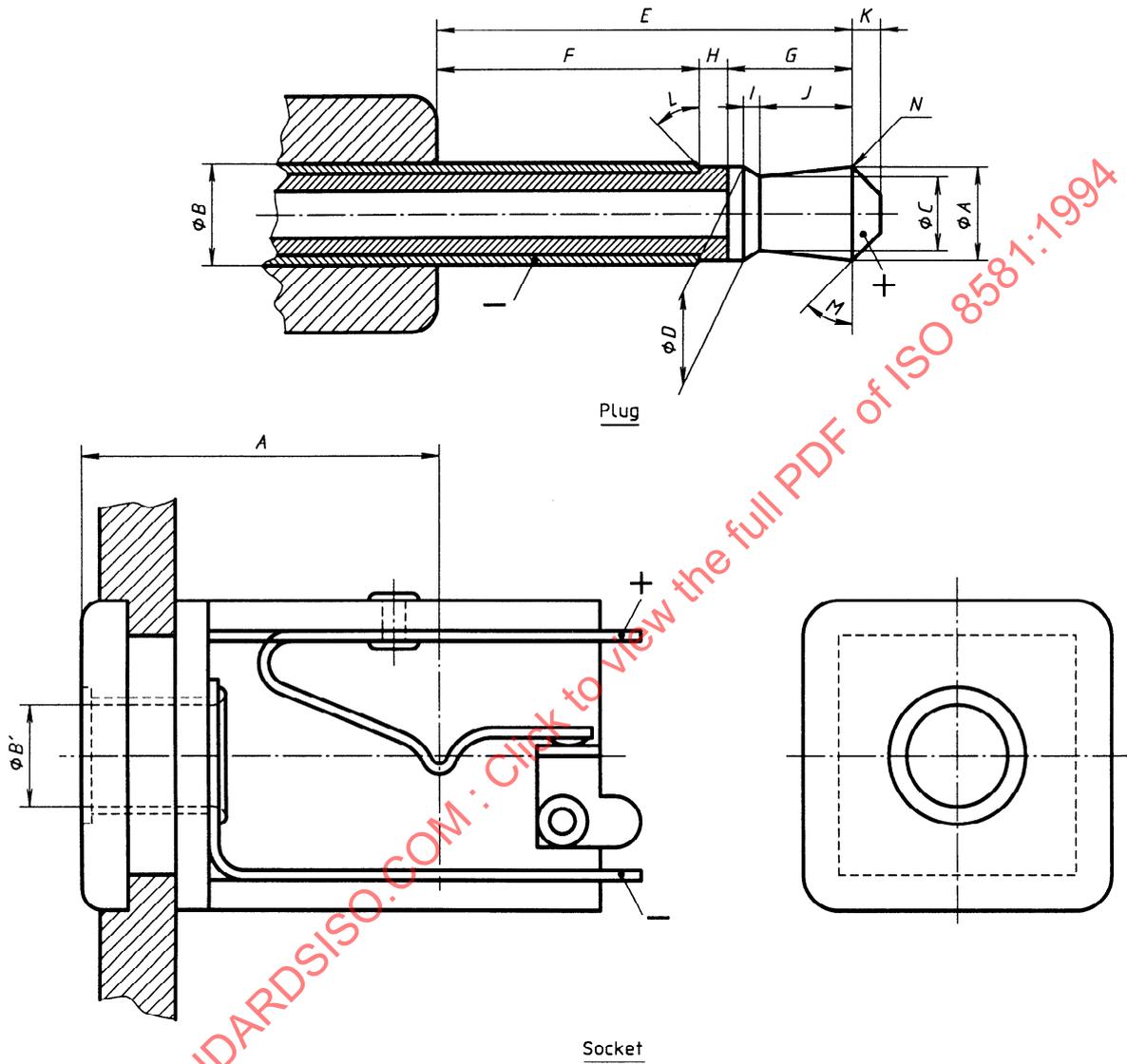


Figure 4 — "Type 4" plug and socket