
**Photography — Synchronizers, ignition
circuits and connectors for cameras and
photoflash units — Electrical
characteristics and test methods**

*Photographie — Interrupteurs synchronisés, circuits d'amorçage et
connecteurs pour appareils de prise de vue et sources d'éclairs —
Caractéristiques électriques et méthodes d'essai*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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

ISO 10330 was prepared by Technical Committee ISO/TC 42, *Photography*.

This second edition cancels and replaces the first edition (ISO 10330:1992), of which it constitutes a minor revision.

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Introduction

When a camera is used in conjunction with a photoflash unit, the photoflash unit can fail to fire, depending upon the combination. The possible causes include a failure of the camera or photoflash unit, poor electrical contact at the connection between both, and the signal transferred to the photoflash unit for firing it being improper.

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Photography — Synchronizers, ignition circuits and connectors for cameras and photoflash units — Electrical characteristics and test methods

1 Scope

This International Standard specifies the electrical requirements of the camera synchronizer, the ignition circuit in the photoflash unit and the cable to connect these, and the test methods to secure positive firing of the photoflash unit.

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.

ISO 516:1999, *Photography — Camera shutters — Timing*

ISO 518:1977, *Photography — Camera accessory shoes, with and without electrical contacts, for photoflash lamps and electronic photoflash units*

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

ISO 8581:1994, *Photography — Electronic flash equipment — Connectors to synchro-cord*

3 Terms and definitions

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

3.1

synchronizer

device provided in a camera or shutter unit which fire the photoflash unit in synchronization with the operation of the camera shutter and which consists of synchronizer terminals, a synchronization switch and a circuit that connects them

NOTE For details of synchronization, refer to ISO 516.

3.2

synchronizer terminals

part of the synchronizer which couples the camera or shutter unit with the photoflash unit as does the accessory shoe with electrical contacts defined in ISO 518 and the socket defined in ISO 519

3.3

ignition circuit terminals

parts of the photoflash unit which are connected to the synchronizer terminals to couple the camera or shutter unit with the photoflash unit to permit firing operation, as does the foot with electrical contacts defined in ISO 518, the plug defined in ISO 519 and the sockets defined in ISO 8581