

# FINAL VERSION

# VERSION FINALE

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**Electrical supply track systems for luminaires**

**Systèmes d'alimentation électrique par rail pour luminaires**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

# ELECTRICAL SUPPLY TRACK SYSTEMS FOR LUMINAIRES

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This Consolidated version of IEC 60570 bears the edition number 4.2. It consists of the fourth edition (2003-01) [documents 34D/770/FDIS and 34D/774/RVD], its amendment 1 (2017-04) [documents 34D/1221/CDV and 34D/1242A/RVC] and its amendment 2 (2019-12) [documents 34D/1502/FDIS and 34D/1517/RVD]. The technical content is identical to the base edition and its amendments.

This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 60570 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

This fourth edition constitutes a minor revision.

This standard shall be used in conjunction with IEC 60598-1.

NOTE In this standard, the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## ELECTRICAL SUPPLY TRACK SYSTEMS FOR LUMINAIRES

### 1 Scope

This International Standard applies to the following track systems with two or more poles for the connection of luminaires to the electrical supply consisting of, either

- a system with a rated voltage not exceeding 440 V between poles (live conductors) with provision for earthing (class I) and a rated current not exceeding 16 A per conductor, or
- a SELV system without provision for protective earthing (class III) and a rated current not exceeding 25 A per conductor, or
- a combination of the two systems mentioned above (mixed supply system) for the connection of both mains voltage luminaires (class I or II) and SELV supplied luminaires (class III) simultaneously, but in different sector openings (mains or SELV).

The track systems may also provide for the mechanical support of the luminaires.

It applies to track systems designed for ordinary interior use for mounting on, or flush with, or suspended from walls and ceilings. These track systems are not intended for locations where special conditions prevail as in ships, vehicles and the like and in hazardous locations, for example, where explosions are liable to occur.

This document does not cover operational or performance compatibility between different track systems. Protection against unsafe compatibility between Class I and Class III circuit is covered by this document.

The track system can be provided with auxiliary circuits for the purpose of a control or audio signal other than supply.

NOTE 1 At present, the following types of control systems are available on the market:

- control signal, with basic insulation to LV supply (e.g. digital addressable lighting interface, 1 V to 10 V DC signal);
- control signal, SELV/PELV insulated to LV supply (e.g. DMX);
- control signal, not insulated to LV supply (e.g. push button control/phase cut/step dim).

Track systems can also be provided with conductors specifically identified for emergency lighting luminaires.

NOTE 2 Requirements for PELV are under consideration, pending modification in IEC 60598-1.

### 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 60417-2, *Graphical symbols for use on equipment – Part 2: Symbol originals*

IEC 60598-1:2014, *Luminaires – Part 1: General requirements and tests*  
IEC 60598-1:2014/AMD1:2017

NOTE The 9<sup>th</sup> edition of IEC 60598-1 is under preparation. Stage at the time of publication IEC PRVC 60598-1:2019. This 9<sup>th</sup> edition provides a cross link between IEC 60598-1 and IEC 60570 for track mounted luminaires.