

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Electrical resistance trace heating systems for industrial and commercial applications –  
Part 1: General and testing requirements**

**Systemes de traçage par résistance électrique pour applications industrielles et  
commerciales –  
Partie 1: Exigences générales et d'essai**



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**Systèmes de traçage par résistance électrique pour applications industrielles et commerciales –  
Partie 1: Exigences générales et d'essai**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX



ICS 25.180.10

ISBN 978-2-8322-1079-6

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL RESISTANCE TRACE HEATING SYSTEMS  
FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS –****Part 1: General and testing requirements**

## FOREWORD

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International Standard IEC 62395-1 has been prepared by IEC technical committee 27: Industrial electroheating and electromagnetic processing.

This second edition cancels and replaces the previous edition published in 2006 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- Tests have been added for trace heating on sprinkler systems;
- The flammability test has been changed to align with the latest draft of future IEC/IEEE 60079-30-11<sup>1</sup>;

<sup>1</sup> Under consideration.

- A supplementary test has been added for the verification of sheath temperature using trace heating mounted on a plate fixture.

The text of this standard is based on the following documents:

| FDIS        | Report on voting |
|-------------|------------------|
| 27/926/FDIS | 27/935/RVD       |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

A list of all parts in the IEC 62395 series, published under the general title *Electrical resistance trace heating systems for industrial and commercial applications*, can be found on the IEC website.

The committee has decided that the contents of this publication 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.

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## INTRODUCTION

IEC 62395-1 provides the essential requirements and testing appropriate to electrical resistance trace heating equipment used in industrial and commercial applications. While some of this work already exists in national or international standards, this standard has collated much of this existing work and added considerably to it.

IEC 62395-2 provides detailed recommendations for the system design, installation and maintenance of electric trace heating systems in industrial and commercial applications.

It is the objective of IEC 62395 that, when in normal use, electrical trace heating systems operate safely under their defined conditions of use, by

- a) employing heaters of the appropriate construction and meeting the test criteria detailed in IEC 62395-1. The construction includes a metallic sheath, braid, screen or equivalent electrically conductive covering;
- b) operating at safe temperatures when designed, installed, and maintained in accordance with IEC 62395-2.
- c) having at least the minimum levels of overcurrent and earth-fault protection required in IEC 62395-1 and IEC 62395-2.

Withdrawal