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# INTERNATIONAL STANDARD



**Electrical resistance trace heating systems for industrial and commercial applications –  
Part 2: Application guide for system design, installation and maintenance**

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INTERNATIONAL  
ELECTROTECHNICAL  
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# ELECTRICAL RESISTANCE TRACE HEATING SYSTEMS FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS –

## Part 2: Application guide for system design, installation and maintenance

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This standard cancels and replaces IEC 62395-2:2013. This edition constitutes a technical revision.

This standard includes the following significant technical changes with respect to IEC 62395-2:2013:

- a) Design considerations for trace heating on sprinkler systems have been expanded and a figure has been added to illustrate how to avoid undue shadowing of spray patterns from insulated sprigs close to sprinkler heads;
- b) Specific details of design considerations for trace heating for emergency eyewash units and safety showers have been added.

The text of this International Standard is based on the following IEC documents:

Draft	Report on voting
27/1183/FDIS	27/1185/RVD

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

The language used for the development of this International Standard is English.

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This standard is intended to be used in conjunction with IEC/IEEE 62395-1.

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

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## INTRODUCTION

IEC/IEEE 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 document has collated much of this existing work and added considerably to it.

IEC/IEEE 62395-2 provides detailed recommendations for the system design, installation, maintenance and repair of electrical resistance trace heating systems in industrial and commercial applications which can include piping, vessels, roofs and concrete slab heating applications.

It is the objective of the IEC/IEEE 62395 series 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 so as to meet the test criteria and requirements detailed in IEC/IEEE 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/IEEE 62395-2;
- c) having at least the minimum levels of overcurrent and earth-fault protection required in IEC/IEEE 62395-1 and IEC/IEEE 62395-2.