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**American National Standard**



Performance Requirements  
for Carbon Monoxide  
Detection Instruments  
(50 - 1000 ppm Full Scale)



ANSI/ISA-S92.02.01, Part I - Performance Requirements for Carbon Monoxide Detection Instruments (50 - 1000 ppm Full Scale)

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## Preface

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**CAUTION: CARBON MONOXIDE IS A TOXIC GAS. EXPOSURE MAY BE HAZARDOUS TO HEALTH AND LIFE.**

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## 1 Scope

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**1.1** This Standard covers the details of construction, performance, and testing of portable, mobile, and stationary electrical instruments. These instruments may be used to monitor for the presence of carbon monoxide gas concentrations in air. Parts of the instruments may be installed or operated in hazardous (classified) locations.

**1.2** This Standard applies to mains-connected instruments rated at 250 V nominal or less, and to portable, mobile, and stationary battery-powered instruments.

**1.3** This Standard applies to instruments suitable for use in an ambient temperature range of at least -10°C to 50°C (14°F to 122°F).

**1.4** This Standard addresses carbon monoxide gas detection instruments intended to provide a warning of the presence of potential hazards in the concentration ranges up to 1000 ppm. Hereafter, the term "gas detection instrument" refers to a CO gas detection instrument.

**1.5** This Standard does *not* address laboratory- or scientific-type carbon monoxide detection instruments used for analysis or measurement in process control and process monitoring applications, instruments intended for residential purposes, or instruments with full-scale gas concentration ranges less than 50 ppm or greater than 1000 ppm.

**NOTE** – The user should specify instrumentation that will provide a higher level of accuracy than the minimum tolerances of this Standard if required by the application risk.

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## 2 Purpose

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**2.1** Part I of this Standard provides minimum performance requirements of electrical instruments for the detection of carbon monoxide gas (CO), in order to enhance the safety of personnel.

**2.2** Part II of this Standard establishes user criteria for the installation, operation, and maintenance of carbon monoxide gas detection instruments.