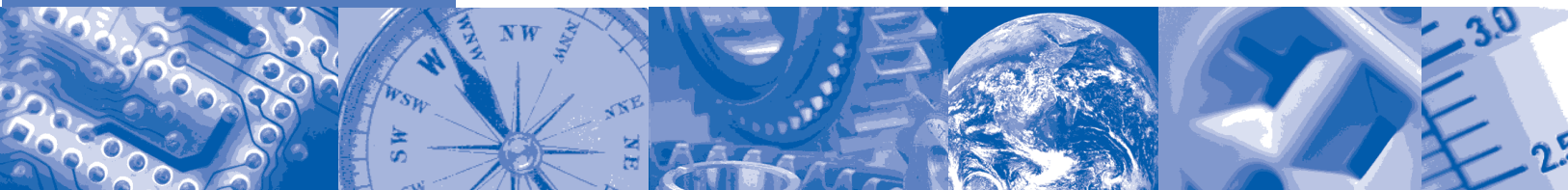


ANSI/ISA-RP12.13.02-2003 (IEC 61779-6 Mod)
Formerly ISA-RP12.13, Part II-1987



**Recommended Practice for the
Installation, Operation, and
Maintenance of Combustible Gas
Detection Instruments**



ISA—The Instrumentation,
Systems, and
Automation Society

Approved 26 February 2003

ANSI/ISA-RP12.13.02 (IEC 61779-6 Mod)
Recommended Practice for the Installation, Operation, and Maintenance of Combustible Gas
Detection Instruments

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Foreword

All text of IEC 61779-6 is included in this document. U.S. National Deviations are shown by ~~strikeout~~ through deleted text and underline under added text. Tables or portions of tables that are to be deleted are shown as shaded; figures to be deleted are marked with the overlay "Figure X Deleted." All added tables are numbered by a table number corresponding to the applicable subclause for improved clarity and are NOT underlined. Notes appear in the table titles showing the tables as added material.

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Introduction

Part 6 (IEC 61779-6 Mod)

Electrical apparatus for the detection and measurement of flammable gases — Part 6: Guide for the selection, installation, use, and maintenance of apparatus

Flammable gas detection apparatus may be used whenever there is the possibility of a hazard to life or property caused by the accumulation of a flammable gas-air mixture. Such apparatus can provide a means of reducing the hazard by detecting the presence of the flammable gas and issuing suitable audible or visual warnings. Gas detectors may also be used to initiate specific precautions (for example plant shutdown, evacuation, and operation of fire extinguishing procedures).

Apparatus may be used to monitor a gas atmosphere below the lower flammable limit in circumstances where accumulation of gas may result in a concentration of the gas/air mixture to potentially explosive levels.

Performance requirements for gas detecting apparatus are set out in ANSI/ISA-12.13.01 (IEC 61779-1 through 5 Mod).

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1 General

1.1 Scope

1.1.1 ~~This part of IEC 61779~~ ANSI/ISA-RP12.13.02 (IEC 61779-6 Mod) gives guidance on the selection, installation, use, and maintenance of electrically operated group II apparatus for the detection and measurement of flammable gases complying with the requirements of ~~IEC 61779-1 to IEC 61779-5~~ ANSI/ISA-12.13.01 (IEC 61779-1 through 5 Mod). It is a compilation of practical knowledge to assist the user, and applies to apparatus, instruments and systems that indicate the presence of a flammable or potentially explosive mixture of gas or vapour with air by using an electrical signal from a gas sensor to produce a meter reading, to activate a visual or audible pre-set alarm or other device, or any combination of these.

NOTE — When in classified areas, the apparatus should be so installed and used that it is not capable of itself igniting a flammable gas-air mixture. It should therefore comply with the requirements of ~~IEC 60079-10~~ ANSI/NFPA 70, Articles 500-505.

For the purpose of this document flammable gases shall include flammable vapours.

1.1.2 This document applies only to group II apparatus intended for use in industrial and commercial safety applications, involving areas classified in accordance with ~~IEC 60079-10~~ ANSI/NFPA 70, Articles 500-505.

For the purpose of this document, apparatus includes

- a) fixed apparatus;
- b) transportable apparatus; and
- c) portable apparatus.

1.1.3 This document is not intended to cover the following:

- a) Apparatus intended only for the detection of non-flammable toxic gases
- b) Apparatus of laboratory or scientific type intended only for analysis or measurement purposes
- c) Apparatus intended for underground mining applications
- d) Apparatus intended for applications in explosives processing and manufacture
- e) Apparatus intended only for process control applications
- f) Apparatus intended for the detection of a potentially flammable atmosphere resulting from dust or mist in air

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this ~~part of IEC 61779~~ document. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this ~~part of~~