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**Flammable gas detectors**

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In the event of any doubts arising as to the contents,  
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## Foreword

This Japanese Industrial Standard has been established by the Minister of Health, Labour and Welfare and the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Safety Appliance Association (JSSA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act. This Standard replaces **JIS M 7626**:1994 and **JIS M 7653**:1996, which have been withdrawn.

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# Flammable gas detectors

## Introduction

This Japanese Industrial Standard has been prepared based on **IEC 60079-29-1**: 2016, Edition 2, deleting, however, the requirements for equipment for use in mines as well as making other changes in technical contents in light of local conditions in Japan.

The dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard specifies general requirements for construction, testing and performance, and describes the test methods that apply to portable, transportable and fixed equipment for the detection and measurement of flammable gas or vapour concentrations with air.

This Standard is applicable to flammable gas detection equipment which is intended to provide continuous sensing and an indication, alarm or other output function; the purpose of which is to indicate a potential explosion hazard and in some cases, to initiate automatic or manual protective action(s).

This Standard is applicable to equipment intended to be used for commercial, industrial and non-residential safety applications, as well as diffusion equipment and aspirated equipment with integrated sampling systems.

This Standard does not apply to

- external sampling systems;
- equipment intended for use in mines susceptible to firedamp;
- equipment of laboratory or scientific type;
- equipment used only for process monitoring and/or control purposes;
- open path (line of sight) detectors (only equipment with very short optical paths intended for use where the concentration is uniform over the optical path are within the scope of this Standard).

For equipment used for sensing the presence of multiple gases, this Standard applies only to the detection of flammable gas or vapour.

NOTE 1 This Standard is intended to provide for the supply of equipment giving a level of safety and performance suitable for general purpose applications.

NOTE 2 All equipment calibrated on specific gases or vapours can not be expected to correctly indicate on other gases or vapours.

NOTE 3 Indication of measured concentration in % (v/v) or vol ppm can also be available for equipment with a measurement range of over 20 % LEL up to and including 100 % LEL or a measurement range of up to 20 % LEL. One ppm is equal to  $10^{-6}$  in volume fraction. In that case, units of measurement might need to be selected upon agreement between the