

CERTIFICATION Notice

An Urgent Bulletin from CSA Group

Hazardous Locations Products No. 29

See Attachment 1 for Effective Dates.

Date: January 3, 2018

See Attachment 1 for Application Due Dates

Announcing: Publication of CSA C22.2 No. 60079-29-1:2017 (Explosive atmospheres — Part 29-1: Gas detectors — Performance requirements of detectors for flammable gases (IEC 60079-29-1:2016, MOD)) and superseding dates for Standard CSA C22.2 No. 60079-29-1:2012 and replacement dates for Standard CSA C22.2 No. 152-M1984 (Combustible gas detection instruments)

Class No: 4828 01, SIGNAL APPLIANCES - Combustible Gas Detection Instruments - For Hazardous
4828 81, SIGNAL APPLIANCES - Combustible Gas Detection Instruments - For Hazardous Location-Certified to US Standards

To purchase the Standard, visit us at www.shop.csa.ca

Who is affected?

Manufacturers of flammable gas detection equipment intended to provide an indication, alarm, or other output function, the purpose of which is to indicate a potential explosion hazard and, where applicable, to initiate automatic or manual protective actions.

What do you do?

1. CSA Group Service Delivery staff will contact you to address compliance with each revision as applicable to the product designs covered in your affected Certification Reports. In addition to updates to your Certificate(s) of Compliance & Report(s), testing may be required to comply with these revisions.
2. Please respond within thirty (30) days of receiving CSA Group's "Application for CSA

Certification Services" and "Quotation" communication. You must respond no later than the application dates listed in Attachment 1 in order to guarantee the update to your certification is completed by the corresponding effective dates shown in the same attachment. If testing is needed, we will inform you of the samples required.

Approvals:

See attachment 2

Major Revisions:

See attachment 3

Background and Rationale:

See attachment 4

For questions specific to your file or products contact your CSA Group technical staff associate.

Go to <http://www.csagroup.org/services/testing-and-certification/product-listing/> and enter your Master Contract # and the class numbers associated with this Notice to determine which of your products are affected.

For technical questions on this Certification Notice

Contact Dorin Stochitoiu
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or e-mail dorin.stochitoiu@csagroup.org

The standard edition or amendments announced in this Notice may be used for certification as of the date of issue of this Notice. The "Effective date" in this Notice is the date on which the current requirements, applicable to Certified products listed in the affected class numbers, expire and the standard edition or amendments announced in this Notice become the only requirements that may be used for certification.

In the event that currently certified products do not comply with the latest requirements outlined in this Notice after the "effective date", the certification of such models may be discontinued.



Visit us at www.csagroup.org where you can click on "Contact Us" for the online phone listing of our Offices and Partners.

ATTACHMENT 1

Effective Dates

Unless superseded by a further notice the following effective dates apply:

New flammable gas detection equipment

Between now and December 31, 2020, the following CSA Standards apply for certification of new flammable gas detection equipment:

- (i) CSA C22.2 No. 152-M1984;
- (ii) CSA C22.2 No. 60079-29-1:2012;
- (iii) CSA C22.2 No. 60079-29-1:2017

After December 31, 2020 the CSA Standard CSA C22.2 No. 60079-29-1:2017, or a newer edition, applies for certification of new flammable gas detection equipment

Existing certified flammable gas detection equipment

Up until December 31, 2022, the following CSA Standards apply when evaluating any revision of existing CSA certified flammable gas detection equipment:

- (i) CSA C22.2 No. 152-M1984;
- (ii) CSA C22.2 No. 60079-29-1:2012;
- (iii) CSA C22.2 No. 60079-29-1:2017;

Note: This means that the standards currently stated in the existing certifications remain applicable for the scope of revisions of existing certifications during the stated period.

After December 31, 2022, the CSA Standard CSA C22.2 No. 60079-29-1:2017, or a newer edition, applies to existing CSA certified flammable gas detection equipment requiring revisions.

Manufacturers must make an application no later than March 1, 2021 in order to guarantee that the evaluation of the revisions their certified equipment is completed by December 31, 2022.

Between now and December 31, 2027, the following CSA Standards remain valid for existing CSA certified flammable gas detection equipment, without revisions of such certifications:

- (i) CSA C22.2 No. 152-M1984-M1984;
- (ii) CSA C22.2 No. 60079-29-1:2012;
- (iii) CSA C22.2 No. 60079-29-1:2017

Note: This means that the certifications already done to these standards remain valid for the period stated, providing that no revisions of such certifications are necessary.

After December 31, 2027, the CSA Standard CSA C22.2 No. 60079-29-1:2017 applies to all new flammable gas detection equipment and to any previously CSA certified equipment or a newer edition.

Manufacturers must make an application no later than March 1, 2026 in order to guarantee that the evaluation to their equipment is completed by December 31, 2027.

If they wish, manufacturers may make an application at any time to have their equipment evaluated to the new requirements of CSA C22.2 No. 60079-29-1:2017 or a newer edition.

ATTACHMENT 2

Approvals

Approvals of flammable gas detection equipment certified to CSA C22.2 No. 152-M1984-M1984 are affected by application of the effective dates listed in Attachment 1.

Flammable gas detection equipment certified to CSA C22.2 No. 152-M1984-M1984 that were also certified ISA 12.13.01:2000 or 2002, will be subjected to the same effective dates with respect to ISA standard which is superseded by current 2013 edition of ANSI/ISA 60079-29-1 (12.13.01) or newer edition of this standard that may be available at the time of approvals update.

Flammable gas detection equipment certified to CSA C22.2 No. 152-M1984-M1984 that were also certified to FM6310/6320 (2001), will be subjected to the same effective dates with respect to FM standard which is superseded by current edition of FM 6320:2014 or newer edition of this standard that may be available at the time of approvals update.

Where applicable, equipment evaluated to the requirements of CSA C22.2 No. 60079-29-1:2017, or newer edition of this standard that may be available at the time of approvals update for Canada, can be also evaluated to 2013 edition of ANSI/ISA 60079-29-1 (12.13.01) or FM 6320:2014, or newer edition of these standards that may be available at the time of approvals update.

ATTACHMENT 3

Major Revisions

Major changes in CSA C22.2 No. 60079-29-1:2017 with respect to the CSA C22.2 No. 60079-29-1:2012 are as below:

- General construction — malfunction effects on safety-related function;
- General indicating devices — portable equipment with visual and audible indication;
- Suppression of indication and measured values below zero — functional limits;
- Fault signals — fault indication below minimum voltage limit, sensor disconnection, and zero drift condition;
- Adjustments — zero and sensitivity adjustments;
- Instruction manual — additions and clarifications;
- Test gas — methane, and propane or butane for general purpose gas detector; ;
- Calibration curve — fixed volume fractions;
- Response to different gases — semiconductor and catalytic high gas concentration exposure;
- Temperature (portable) — temperature range and stabilization period;
- Warm-up time — user prompt requirement;
- Power supply variation — minimum supply voltage fault limit;
- Electromagnetic compatibility — test methods and requirements;

There are significant differences between CSA C22.2 No. 60079-29-1 standard requirements when compared with requirements of standard CSA C22.2 No. 152. Examples of major differences are:

- Requirements for electromagnetic compatibility
- Requirements for requirements for software assessment
- Introduction of pressure variation test
- Difference testing sequences

- Addition of methane and propane or butane as required test gases for general purpose gas detector
- Calibration curve (accuracy) — different volume fractions required

Following table is the summary of the processes that shall be expected when the a manufacturer request is made for existing certifications that include the obsolete standards subject to this notice, to be upgraded to the latest edition of CSA C22.2 No. 60079-29-1:

Applicable requirement listed in the existing CSA report	Construction review	Tests
CSA C22.2 No. 60079-29-1:2012	Gap analysis shall be conducted	As necessary, based on results gap analysis the each file review.
CSA C22.2 No. 152	Full construction review shall be expected to commence	Full test program shall be expected to commence

ATTACHMENT 4

Background and Rationale

CSA C22.2 No. 60079-29-1:2017 (Explosive atmospheres — Part 29-1: Gas detectors — Performance requirements of detectors for flammable gases (IEC 60079-29-1:2016, MOD)) has been published in 2017. It represents the Canadian adoption of the second edition of IEC 60079-29-1 with minor national deviations and it supersedes the previous edition published in 2012 as CSA C22.2 No. 60079-29-1 (adopted IEC 60079-29-1:2007 with deviations) and replaces CSA C22.2 No. 152-M1984. CSA C22.2 No. 60079-29-1:2017 harmonizes the Canadian requirements for performance of flammable gas detector equipment with latest IEC and EN requirements and as result testing conducted to CSA C22.2 No. 60079-29-1:2017 can also be used for all North America, IECEx and ATEX certification services provided by CSA Group.