Hazardous Location Information

CSA, cUL & cFM - Certification Purge/Pressurization - MiniPurge

OVERVIEW

Canadian customers that have Classified Locations such as Petro / Chemical, Pharmaceutical or Original Equipment Manufacturers (OEM's) of equipment for Classified Locations will require apparatus installed in this area to be certified/approved to relevant Canadian Standards. The apparatus is to be certified by CSA (Canadian Standards Association) or approved by Underwriters Laboratory (UL) or Factory Mutual (FM). It is not sufficient to have UL or FM to the NEC (National Electrical Code), but cUL or cFM marking on the apparatus ensures compliance with CEC (Canadian Electrical Code). There are mutual agreements between Canada and the USA whereby all Notified Bodies can approve apparatus to the relevant Canadian or American Standards.

Canadian plants that include hazardous explosive areas have traditionally been classified as Class I or II, Division 1 or 2. As of January 1998, all green field sites have to be "Zoned" in accordance with the Canadian / IEC (International Electrotechnical Commission) standards. The requirements for compliance to IEC are a separate subject but are briefly included below.

Until the introduction of the IEC standards there were no Canadian Standards for Purge and Pressurized apparatus, however, CSA would certify the complete apparatus to NFPA496 plus the additional requirements of "Technical Information Letter No. E-13A" this includes the CSA standard C22.1. By the fitting of a Listed Purge and Pressurized Control System, it will not automatically certify the Purged Enclosure and contents, the complete assembly has to be submitted to a Notified Body, such as CSA, for final approval. Some manufacturer use a CSA certified component which could be misinterpreted as the purge system being CSA certified.

The MiniPurge range of Purge and Pressurize Control Systems are FM, UL and cUL Listed and are accepted by CSA. When reviewing the complete apparatus submitted, CSA will check whether the MiniPurge Control System installed is correct for the application. This will help gain approval and reduce the time and cost of the submission.

The pressurized enclosure, when manufactured by a CSA "Work Shop" will also reduce the time and cost of the submission as the enclosure and any item mounted in the wall of the enclosure, windows, switches, etc have to comply with the standard for Industrial Enclosures. All components, including wiring should also be approved to ease the final approval.

Zone Specification

Canada has published the IEC 60079 range of standards with due consideration to the CEC (Canadian Electrical Code). The publication are prefixed with 'E', example E60079-2. At present there are few products certified to these standards, alternative solutions must be considered.

Canada has signed-up to the IECEx scheme, for more details see www.iecex.com, but before IECEx certified equipment can be used in Canada it has to be reviewed by a Notified Body such as CSA for compliance with the CEC. The manufacturer of the IECEx product has to submit the associated 'Ex Test Report' to CSA for review before issuing an appropriate CSA certificate. Basically a paperwork only exercise.

The Expo **MiniPurge** range of Purge and Pressurize systems are "**Tri-certified**", IECEx **(Global)**, ATEX **(EU)** for Zones and cUL / ULus **(Canada / USA)** for Divisions. One design for GLOBAL markets and applications.

Expo has worked with CSA on many applications and will be only too please to assist wherever we can.

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The Expo Range of MiniPurge Systems are approved for use in Canada

"The Purge + Pressurizing Specialists"

Expo Technologies Ltd
Summer Road, Thames Ditton,
Surrey, KT7 0RH, UK
T +44 (0) 20 8398 8011
F +44 (0) 20 8398 8014
E sales@expoworldwide.com

www.expoworldwide.com

Expo Technologies Inc
P.O. Box 486, Chagrin Falls,
Ohio 44022-0486, USA
T 888-NFPA-496 (Toll Free)
F +1 440 247 5409
E sales.na@expoworldwide.com