



# News Letter

## IECEX & ATEX Certified MiniPurge™ Systems



Tri-Certified MiniPurge Range

### Certification Up-Date

+ The MiniPurge Range is now certified IECEX & ATEX by SIRA to the latest IEC / EN 60079-0 & -2, Ex p gas and IEC 61241-0 & -4, Ex pD dust standards.

### What is IEC & IECEX?

+ The European Standards are being harmonized with the IEC International Standards, which means Europe has published many of the IEC standards without change. An example is IEC 60079-2 which has been published as EN 60079-2 for Purge & Pressurization Apparatus.

+ IECEX Certification: This is a worldwide scheme to which 27 countries have agreed to participate. Many other countries are adopting it for their plants. For more information on the IECEX Scheme go to: [www.iecex.com](http://www.iecex.com)

+ Although Europe is adopting the IEC as EN standards and many European countries are participating in the IECEX scheme, Europe still requires the inclusion of the ATEX Directives when certifying and installing apparatus. Because of this Expo has obtained IECEX and ATEX certification on the MiniPurge range.

+ As well as the IECEX and ATEX certification, the MiniPurge range remain FM and cULus Certified to NFPA 496.

### Ex px, Ex py & Ex pz MiniPurge Systems IECEX & ATEX Certified

- + Full line of IECEX & ATEX Purge & Pressurize Systems
- + IECEX & ATEX to IEC / EN 60079-2 Ex p
- + IECEX & ATEX to IEC 61241-4 Ex pD
- + Including NFPA 496 X, Y, Z Purging
- + Engineered for Worldwide acceptance
- + One Purge System Satisfies All Applications
- + Simple pneumatic logic using the same compressed air supply for the purging as the Logic
- + No electronic programming required
- + No special electrical wiring between components required
- + MiniPurge Control Unit and Relief Valve housings made from 316 Stainless Steel as standard

### Model Numbers for Tri-Certification

+ The Model number for this new range of Tri-Certified IECEX – ATEX – NFPA systems is identified by the new prefix '07' For example:

1XLC/ss/PO	should be specified as	<b>07 1XLC/ss/PO</b>
1ZCF/bp/IS	should be specified as	<b>07 1ZCF/bp/IS</b>

### **“The Purge + Pressurizing Specialists”**

67 E. Washington Street, Chagrin Falls  
Ohio 44022-0486, USA  
T 888-NFPA-496 (Toll Free)  
F 1 440 247 5409  
E [sales.na@expoworldwide.com](mailto:sales.na@expoworldwide.com)

Expo Technologies

[www.expoworldwide.com](http://www.expoworldwide.com)

Summer Road, Thames Ditton  
Surrey, KT7 0RH, England  
T +44 (0)20 8398 8011  
F +44 (0)20 8398 8014  
E [Info@expoworldwide.com](mailto:Info@expoworldwide.com)



## + Hazardous Gas, Vapour Ex p Systems

The New IEC 60079-2 and EN 60079-2 standard now includes for three types of Ex p system.

Expo has obtained IECEx and ATEX certification to these standards and can now offer the following certified products.

**Ex px = Zone 1** applications where the apparatus installed in the purge and pressurized enclosure is general purpose. This system is completely automatic in operation.

**Ex py = Zone 1** application where the apparatus installed in the purge and pressurized enclosure is certified Ex n. This system is manually operated including the switching of power to the apparatus.

**Ex pz = Zone 2** application where the apparatus installed in the purge and pressurized enclosure is general purpose. This system is manually operated including the switching of power to the apparatus.

The USA has used this principle of X, Y, Z Purging for several decades but there is a major difference between the USA, NFPA 496 standard and the IEC / EN 60079-2 standard. The IEC / EN standard requires the Purge Flow Rate to be measured at a "defined outlet" whereas NFPA 496 standard states "the purge flow shall pass through the enclosure". The MiniPurge range complies with all these requirements in one purge system. Tri-Certification is therefore ideal for the OEM clients who supply equipment worldwide.

**One Purge System Satisfies All Applications.**

## + Hazardous Gas, Vapour & Dust Ex p and Ex pD Systems

Where there is a "Presence of both Gas and Dust".

Some sites such as pharmaceutical plants, have areas classified for both gas and dust. For such plants the Expo MiniPurge range is certified IECEx / ATEX for both gas and dust locations, ideal for the User and the OEM.

**One Ex System Satisfies All Applications.**

If there is gas in the area, then the enclosure must be purged prior to applying power. With dust it is not desirable and therefore not a requirement to purge the enclosure prior to applying power. If there is a presence of both gas and dust, then using the combined Ex p and Ex pD system will reduce the gas concentration by purging, and will thereafter pressurize the enclosure. It is therefore important to comply with "Good House Keeping" (Refer to \*\*Note below).

## + Hazardous Dust Ex pD Systems

The IEC 61241-1 standard includes for Zone 21 and 22 (Dust) applications, type of protection: Ex pD.

Expo is now able to offer "Pressurizing" systems certified to IECEx and ATEX to IEC 61241-1

**Zone 21** applications require the power to be automatically applied and disconnected on loss of pressure which means the 1XDP / - - system should be used in conjunction with the Expo MIU (MiniPurge Interface Unit)

**Zone 22** applications only require the power to be applied and disconnected manually.

For both Zone 21 and 22 an Alarm is required on loss of pressure.

### \*\* NOTE "Good House Keeping"

"Good House Keeping" is essential where there is a presence of potentially explosive dust. It is therefore essential that any dust that is present within the pressurized enclosure is removed before closing the enclosure and applying the pressurization system/power.

## + Changes to the Mini-X-Purge

### Mini-X-Purge Systems

The IEC 60079-2 and EN 60079-2 for Zone 1, using the Mini-X-Purge or Mini-Y-Purge systems requires a change to the way flow is measured. Because of this there has been a slight change to the Mini-X-Purge systems.

**Leakage Compensation** systems, now has an additional measurement device on the rear of the RLV. This small block is located inside the purged enclosure. The flow measurement pipe that was connected to the RLV (pre-IECEx) now connects to this measurement device block.

**Continuous Flow** systems are supplied with the original design of RLV but have a flow measurement pipe connected from an additional bulkhead on the Control Unit to the SAU.

There are also two (2) types of SAU:

The size 1XCF - - system uses the New SAU25, with the additional flow measuring connection.

The size 2XCF - - system uses the new SAU40 with additional flow measurement connection.

### Mini-Z-Purge Systems

The Mini-Z-Purge range design is unaffected and the original flow measurement system is used. Leakage Compensation systems use the original RLV and the Continuous Flow systems also use the original RLV and SAU25.

2 x SAU25 are supplied with the size 2ZCF - - systems.

## "The Purge + Pressurizing Specialists"

67 E. Washington Street, Chagrin Falls  
Ohio 44022-0486, USA  
T 888-NFPA-496 (Toll Free)  
F 1 440 247 5409  
E sales.na@expoworldwide.com

Expo Technologies

www.expoworldwide.com

Summer Road, Thames Ditton  
Surrey, KT7 0RH, England  
T +44 (0)20 8398 8011  
F +44 (0)20 8398 8014  
E Info@expoworldwide.com

