

# **IECEx Certificate** of Conformity

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx EXV 19.0006X** Page 1 of 4 Certificate history:

Issue 1 (2021-08-18) Issue No: 2 Status: Current Issue 0 (2019-06-12)

2023-05-12 Date of Issue:

Applicant: Purge Solutions, Inc.

592 Avenue E 1/2, Alvin, Texas 77511

**United States of America** 

CYCLOPS Z-Purge Indicators PSCZ - a - b - c - d - e Equipment:

Optional accessory:

Type of Protection: ec, ic, tc and [pzc]

Marking: Ex ec ic [pzc] IIC T6 Gc

Ex ic [pzc] tc IIIC T79°C Dc

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Manager** 

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

**ExVeritas Limited** Units 16-18 Abenbury Way Wrexham Ind. Est. Wrexham LL 139UZ **United Kingdom** 





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Date of issue: 2023-05-12 Issue No: 2

Manufacturer: Purge Solutions, Inc.

592 Avenue E 1/2, Alvin, Texas 77511

**United States of America** 

Manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-2:2014

Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"

Edition:6

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

Edition:5.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/EXV/ExTR19.0003/00 GB/EXV/ExTR21.0060/00 GB/EXV/ExTR23.0014/00

Quality Assessment Reports:

NO/PRE/QAR16.0018/01 NO/PRE/QAR16.0018/02



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The CYCLOPS Z-Purge Indicators provide evidence of pressurization for a customer supplied enclosure with either leakage compensation or continuous dilution sources of protective gas. The unit comes in one casing style, which is available in either stainless steel or anodized aluminium, machined from bar stock.

The CYCLOPS Z-Purge Indicator monitors one pressure point and is flange mounted to the outer side wall of the enclosure it will be monitoring. All electrical and alarm connections to the CYCLOPS Z-Purge Indicator are made inside the purged enclosure.

(Refer to attachment for the type code rule)

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- When the purge indicator is used with a pressurized enclosure, the assembly shall be evaluated according to the requirements of IEC 60079-0, IEC 60079-2 and IEC 60079-31 (as applicable).
- The terminals blocks are approved as "ec" for Group II and "tc" for Group III, therefore, their installation compartment shall comply with the requirements of IEC 60079-7 and IEC 60079-31, as applicable.



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### **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Issue 1:

- 1. Upgrade to IEC 60079-0:2017 7th edition.
- 2. Minor administrative changes to the General product information and manufacturer's technical documents.

Issue 2:

3. New encapsulation alternates were evaluted for the equipment.

Annex:

IECEx EXV 19.0006X - IECEx Certificate Annex\_1.pdf

Annex to: IECEx EXV 19.0006X Issue 2

### **Description Continued:**

### Type Description:

PSCZ-a-b-c-d-e

- a Supply Voltage:
  - 1: Normal Voltage 12 Vdc
  - 2: Normal Voltage 24 Vdc
  - 3: Normal Voltage 115 Vac
  - 4: Normal Voltage 230 Vac
- b Enclosure Material:
  - A Anodized 6061-T6 Aluminum Machined Round Stock
  - S 316 Stainless Steel Machined Round Stock
- c Maximum Enclosure Volume:
  - 1 Up to 25 Cubic Foot (708 Litres)
  - 2 Up to 100 Cubic Foot (2,832 litres)
  - 3 Up to 200 Cubic Foot (5,663 litres)
  - 4 Up to 300 Cubic Foot (8,495 litres)
- d Hazardous Area Type:
  - G Gas Hazardous Areas
  - D Dust Hazardous Areas
- e Alarm Contact Type:
  - O Normally Open
  - C Normally Closed

#### **Routine Tests:**

Dielectric strength test according to document DO-11031-J to be performed in all units covered by this approval.

### **Special Conditions for manufacture:**

N/A

Manufacturer's documents:				
Title:	Drawing No.:	Rev. Level:	Date:	
CUSTOMER WIRING DIAGRAM CYCLOPS Y OR Z – PURGE INDICATOR	DO-11009-F	F	2002/08/04	
CYCLOPS Z – PURGE INDICATOR IOM MANUAL	DO-11011-Y	Υ	2021/05/12	
CYCLOPS Z – Purge Indicator Checkout Sheet	DO-11031-J	J	2002/03/23	



### Annex to: IECEx EXV 19.0006X Issue 2

Title:	Drawing No.:	Rev. Level:	Date:
*GENERAL ASSEMBLY CYCLOPS Y&Z – PURGE INDICATOR	DO-11045-H	Н	2023/04/13
PC BOARD SCHEMATICS CYCLOPS Y&Z – PURGE INDICATOR	EB-11021-C-1	С	2005/04/11
PC BOARD BARE CYCLOPS Y&Z – PURGE INDICATOR	EB-11021-C-2	С	2005/04/11
PC BOARD TRACE LAYOUT CYCLOPS Y&Z – PURGE INDICATOR	EB-11021-C-3	С	2005/04/11
PC BOARD GENERAL ASSEMBLY CYCLOPS Y&Z – PURGE INDICATOR	EB-11021-C-4	С	2005/04/11
PURGE SOLUTIONS ATEX & IECEX CASING LABEL LAYOUT CYCLOPS Z – PURGE INDICATOR	MM-10002-M-1	M	2002/12/27

<sup>\*</sup>Note: An \* is included before the title of documents that are new or revised.