



DET NORSKE VERITAS

TYPE EXAMINATION CERTIFICATE

- [2] **EQUIPMENT INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC**
- [3] Type Examination Certificate Number: **DNV 09 ATEX 52751X** Rev. 1
- [4] Equipment: **CYCLOPS Z-Purge Indicators**
- [5] Applicant – Manufacturer or Authorized representative: **Purge Solutions, Inc.**
- [6] Address: **2201 N. Highway 35 Bypass, Suite C
Alvin, Texas, 77511, USA**
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV certifies that this equipment has been found to comply with the Essential Health and Safety requirements that relate to the design of Category 3 equipment, which is intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential reports listed in section 14.
- [9] Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:
EN 60079-0:2012, EN 60079-2:2007, EN 60079-15:2010, and EN 60079-31:2014
- [10] If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This TYPE EXAMINATION CERTIFICATE relates only to the design, examinations and tests of the specified equipment. If applicable, further requirements of this Directive may apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- [12] The marking of the equipment shall include the following:



II 3 G Ex nA ic [pz] IIC T6 Gc
II 3 D Ex tc IIC T79°C Dc IP66

T_{amb} = -40°C to +65°C

Høvik, 2015-02-09
for Det Norske Veritas AS


Asle Kaastad

Certification Manager



Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The digitally signed and electronically distributed document is the original and valid certificate. Ref.: www.dnv.com/digitalsignatures

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



[13]

Schedule

[14] **TYPE EXAMINATION CERTIFICATE No.:** DNV 09 ATEX 52751X

Rev. 1

Certificate History



Revision	Description	Report no.	Issue date
-	Original certificate	2009-3300 Rev 1	2009-06-29
1	Updated to EN 60079-0:2012, EN 60079-15:2010, and EN 60079-31:2014	2014-3240 Rev 1	2015-02-09

[15] Description of Equipment:

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.

Type Identification and Electrical Data

CYCLOPS Z - Purge Indicators

PSCZ-	a	b	c
			<u>Hazardous Area Type:</u> Blank = Gas Hazardous Areas D = Dust Hazardous Areas
			<u>Enclosure Material:</u> A = 6061-T6 Aluminum Machined Round Housing S = 316 Stainless Steel Machined Round Housing
			<u>Electrical Parameters:</u> 1 = 12VDC 2 = 24VDC 3 = 115VAC 4 = 230VAC
Marking Code:  II 3 G Ex nA ic [pz] IIC T6 Gc  II 3 D Ex tc IIIC T79°C Dc IP66			

Note: Other characters may appear after those listed above that are not relevant to this certification

Degrees of protection (IP Code): IP66

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[16] Project No: PRJC-48482-2008-PRC-USA

Descriptive documents

See Technical Report 2014-3240 Rev 1 for details of the descriptive documents associated with this certification.

Routine tests

A dielectric strength test according to EN 60079-15:2010 Clause 23.2.1 must be performed on each individual unit.

[17] Special conditions for safe use

When these purge indicators are used with a pressurized enclosure, the pneumatic parameters and overall temperature class must be defined by the manufacturer or in a separate certificate.

When the purge indicators are mounted in the enclosure wall of a pressurized enclosure, the enclosure must be at least IP54 in order to comply with the requirements of Ex-nA for the indicator terminals.

[18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.