

UL Type Examination Certificate

ATEX Directive 2014/34/EU



Certificate

DEMKO 14 ATEX 1282X
Rev. 6

Issue date
2014-09-15

Re-issued
2026-07-20

This is to acknowledge that

Pepperl+Fuchs SE

Lilienthalstrasse 200, 68307 Mannheim, Germany

has had

Type Z Purge System

evaluated and meets the requirements of the standards

EN IEC 60079-0:2018

EN 60079-2:2014

EN 60079-7:2015

EN IEC 60079-7: 2015 +A1:2018

EN 60079-11:2012

EN IEC 60079-15: 2019

EN 60079-31:2014

Test Report No. **US/UL/ExTR14.0029/06**

Certification Manager
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This is to certify that the sample(s) of the product described herein ("Certified Product") has been investigated and found in compliance with the above mentioned harmonized Standard(s) per Article 12 of Directive 2014/34/EU of the European Parliament and of the Council relating to equipment and protective systems for use in potentially explosive atmospheres indicated on this Certificate, in accordance with the UL Type Examination Certificate Scheme Requirements.

The responsibilities of manufacturers, their authorized representatives are provided in Articles 6 and 7 of the Directive 2014/34/EU. This remains the responsibility of the manufacturer and authorized representative and is not covered as part of this certificate.

This certificate and test results obtained apply only to the product sample(s) submitted by the Applicant. UL International Demko A/S (UL) did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established follow-up service for inspection or other surveillance of the product. The Certificate Holder is solely and fully responsible for conformity of all products to all applicable Standards, specifications, requirements or Directives/Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

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Technical Details / Schedule

Description of product and Nomenclature

Type Z Purge Control Unit -

5500	-SS	-I	-VAC	-PNO	-LNO
I	II	III	IV	V	VI

I. 5500 – Basic Control Unit Type designation

II. Housing material

-SS	–	Stainless Steel
-AA	–	Aluminium

III. Mounting Configuration

-E	–	External Mounting
-I	–	Internal Mounting
-P	–	Panel Mounting (External Mounting with additional mounting bracket)

IV. Voltage requirement

-VAC	–	100-240Vac
-VDC	–	20 to 30Vdc

V. Wiring entrance for power connection

-PNO	–	No fittings or cable gland
-PSH	–	(3) ½ inch stainless steel conduit entrance
-xxx	–	any other 3 alphanumeric character combination identifying fittings for M20 threaded hole.

Fittings must be Ex certified for use for the specific end application.

VI. Wiring entrance for low voltage connection

-LNO	–	No cable glands
-xxx	–	any other 3 alphanumeric character combination identifying fittings for M12 threaded hole.

Fittings must be Ex certified for use for the specific end application.

Type Z Purge Control Vent Accessory Unit–

EPV-5500	-AA	-01
I	II	III

I. EPV-5500 – Basic Control Vent Type designation

II. Material

-AA	–	Anodized aluminium
-SS	–	Body 'EPV -...-01, 02 & 03': 6061T Al, Cap: 304 or 316 stainless steel

III. Mounting Configuration

-01	–	30 SCFM (850 l/min) max flow, brk. Press. 0.8 in. H2O (2.0 mbar)
-02	–	20 SCFM (565 l/min) max flow, brk. Press. 1.4 in. H2O (3.5 mbar)
-03	–	12 SCFM (340 l/min) max flow, brk. Press. 1.5 in. H2O (3.8 mbar)

Performance testing

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Ex marking

Ex II 3 (3) G Ex ic ec nC [ic Gc] [pzc Gc] IIC T4 Gc (-20°C ≤ Ta ≤ +60°C)
Internal & External Mounting versions

Ex II 3 (3) G Ex ic ec nC [ic Gc] [pzc Gc] IIC T6 Gc (-20°C ≤ Ta ≤ +40°C)
Internal & External Mounting versions

Ex II 3 (3) D Ex ic tc [ic IIIC Dc] [pzc Dc] IIIB T80°C Dc (-20°C ≤ Ta ≤ +60°C)
External Mounting version

Ex II 3 (3) D Ex ic tc [ic IIIC Dc] [pzc Dc] IIIB T60°C Dc (-20°C ≤ Ta ≤ +40°C)
External Mounting version

Ex II 3 (3) D Ex ic tc [ic Dc] [pzc Dc] IIIC T80°C Dc (-20°C ≤ Ta ≤ +60°C)
Internal mounting version

Ex II 3 (3) D Ex ic tc [ic Dc] [pzc Dc] IIIC T60°C Dc (-20°C ≤ Ta ≤ +40°C)
Internal Mounting version

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Temperature range

The relationship between ambient temperature and the assigned temperature class is as follows:

Mounting version	Ambient temperature range	Temperature class
Internal & External Mounting versions	-20 °C to +60 °C	T4 Gc
Internal & External Mounting versions	-20 °C to +40 °C	T6 Gc
External Mounting version	-20 °C to +60 °C	T80 °C Dc
External Mounting version	-20 °C to +40 °C	T60 °C Dc
Internal Mounting version	-20 °C to +60 °C	T80 °C Dc
Internal Mounting version	-20 °C to +40 °C	T60 °C Dc

Trademark

N/A

Ratings

Electrical data

Intrinsically safe specifications:

The bypass switch has the following entity parameters for customer connections:

Voc = 5.15V
Isc = 5.76 mA
Co = 79 uF
Lo = 100 mH

The temperature sense has the following entity parameters for customer connections:

Voc = 5.15V
Isc = 9.21 mA
Co = 79 uF
Lo = 100 mH

See document 16-0729UL-00 for additional details.

Routine tests

Each piece of equipment defined above has to have successfully passed; before delivery:
Dielectric test in accordance with EN IEC 60079-7:2015 +A1:2018, clause 7.1.

Descriptive documents

The scheduled drawings are listed in the report no. provided under item "Test Report No." on page 1 of this UL Type Examination Certificate.

Specific Conditions of Use

- The main control unit and the EPV vent are the only parts that have been evaluated for the certifications of the system.
- For dust environments, the non-metallic membrane touchpad and display may pose an electrostatic discharge hazard. Use only water damp cloth and allow to air dry for cleaning device. Do not use or install in high charge areas. See IEC 60079-32-1 for further information.
- When mounting the 5500 purge control unit, the unit shall not have the membrane keypad exposed to direct UV light sources and direct sunlight. Example methods of protection include, but are not limited to, indoor applications away from UV sources and outdoor locations under shading. As part of regular inspections, if damage to or deterioration of the membrane keypad is detected the unit is to be taken out of service for repair or replacement.
- When the 5500 purge system is mounted to an enclosure, the complete installation shall be evaluated to the appropriate standards and regulations applicable for the final installation location.
- The purge control unit has a temperature class (T6 or T4) that is dependent on ambient temperature. This temperature shall be considered when mounted to an enclosure, or inside of an enclosure.
- All un-used entry points to the 5500 control unit shall be closed with a properly certified ATEX device suitable for the area of installation with the necessary ingress protection.
- The bypass function shall only be enabled during setup or maintenance and only when the area is known to be non-hazardous.
- The device shall be installed in an area of not more than pollution degree 2 as defined in EN 60664-1.
- The device must be installed in accordance with the manufacturer's installation drawing number 116-B026.

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Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed on page 1.
Additional Information
The Type 5500 purge control unit has in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.