



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UKCA UK TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 22UKEX1198X** Issue: **0**
4 Product: **VEGAPULS 6X with model code PS6X(Z)(*),*******
5 Manufacturer: **VEGA Grieshaber KG**
6 Address: Am Hohenstein 113
77761 Schiltach
Germany

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11:2012 EN 60079-26:2015

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:

The certification codes are depending on the characters of the following model code.

PS6X(Z)(*).a-b-c-de-f-g-hi-j-k-l-m-no-p-q-r-s-t-u

If characters are separated by a slash, these are different options for a specific wildcard.

Refer to the schedule for specific marking for the models

Name: Michelle Halliwell
Title: Director of Operations



**UKUK
CANI**

Certificate No. **CSAE 22UKEX1198X**
CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
This certificate and its schedules may only be reproduced in its entirety and without change
DQD544.21 Issue 3 (2022-04-14)
Page 1 of 7

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

**CSAE 22UKEX1198X
Issue 0**

13 DESCRIPTION OF PRODUCT

The VEAGPULS 6X is a radar level gauge in type of protection intrinsic safety. Depending on the model the VEAGPULS 6X is suitable for use in hazardous gas and/or dust atmospheres. The series of the VEAGPULS 6X in general consist of a broad variety of models with different types of enclosures (single and double chamber enclosure), different enclosure materials, different electronics, different antenna types and different types of process connections. In addition there are some more options like sealing material (depending on the process temperature) or cable entry / connection type.

Certification codes

The certification codes are depending on the characters of the following model code.

PS6X(Z)(*).a-b-c-de-f-g-hi-j-k-l-m-no-p-q-r-s-t-u

If characters are separated by a slash, these are different options for a specific wildcard.

For example the characters B/T/F/C, in the model code shown below, are different options for the wildcard "f" in the model code shown above.

| Model code | UKEX (including Equipment Group & Category marking) |
|--------------------------------------|---|
| PS6X(Z)(*).2*W**B/T/F/C*****H*C***** | II 1 G Ex ia IIC T6...T1 Ga |
| | II 1/2 G Ex ia IIC T6...T1 Ga/Gb |
| | II 2 G Ex ia IIC T6...T1 Gb |
| Model code | UKEX (including Equipment Group & Category marking) |
| PS6X(Z)(*).2*W**B/T/F/C*****H*H***** | II 1 G Ex ia IIC T6...T1 Ga |
| | II 1/2 G Ex ia IIC T6...T1 Ga/Gb |
| | II 2 G Ex ia IIC T6...T1 Gb |
| | II 1 D Ex ia IIIC T ₂₀₀ 102 °C Da |
| | II 1/2 D Ex ia IIIC T* °C Da/Db |
| | II 2 D Ex ia IIIC T 111 °C Db |
| Model code | UKEX (including Equipment Group & Category marking) |
| PS6X(Z)(*).2*W**B/T/F/C*****A*C***** | II 1/2 G Ex ia IIC T6...T1 Ga/Gb |
| | II 2 G Ex ia IIC T6...T1 Gb |
| Model code | UKEX (including Equipment Group & Category marking) |
| PS6X(Z)(*).2*W**B/T/F/C*****A*H***** | II 1/2 G Ex ia IIC T6...T1 Ga/Gb |
| | II 2 G Ex ia IIC T6...T1 Gb |
| | II 1/2 D Ex ia IIIC T* °C Da/Db |
| | II 2 D Ex ia IIIC T 111 °C Db |

T* defines the maximum surface temperature of the Da/Db equipment.



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1198X

Issue 0

Electrical data:

| Connection | Parameter |
|---|--|
| Supply circuit (terminals 1 and 2) | Type of protection Intrinsic Safety Ex ia IIC resp. Ex ia IIIC (depending on the model code of the equipment) only for connection to a certified intrinsically safe circuit. Maximum values: Ui = 30 V DC Ii = 131 mA Pi = 983 mW Li = 0 µH Ci = 0 µF |
| Output circuit (terminals 5,6,7 and 8) | Type of protection Intrinsic Safety Ex ia IIC resp. Ex ia IIIC (depending on the model code of the equipment) only for connection to the external display unit VEGADIS 81 (certified under IECEx PTB 06.0048X). Maximum values of the connection cable: Lo = 130 µH Co = 600 nF |

Temperature ratings (gas):

The temperature ratings are depending on the model, ambient temperature and process temperature and are as listed below. The certification codes are depending on the characters of the following model code.

PS6X(Z)(*).a-b-c-de-f-g-hi-j-k-l-m-no-p-q-r-s-t-u

If characters are separated by a slash, these are different options for a specific wildcard. For an example see also the explanation in the beginning of Certification codes section above.

PS6X(Z)(*).2*W**B*AT/AU/AV*****

Aluminum enclosure – Model code option **j** : A, H, 3, D, S, 4, 9

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C...+40°C |
| T5 | -40°C...+80°C | -40°C...+58°C |
| T4 ... T1 | -40°C...+76°C | -40°C...+76°C |

Stainless steel precision casted enclosure – Model code option **j** : V, 5, W

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C...+39°C |
| T5 | -40°C...+80°C | -40°C...+57°C |
| T4 ... T1 | -40°C...+76°C | -40°C...+76°C |



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1198X

Issue 0

Stainless steel electro-polished enclosure & plastic enclosure - Model code option **j** : 8, K, R

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C...+38°C |
| T5 | -40°C...+80°C | -40°C...+56°C |
| T4 ... T1 | -40°C...+76°C | -40°C...+76°C |

PS6X(Z)(*).2*W**F*AW/AY/A2*****

PS6X(Z)(*).2*W**T*AA/AC/AE/AG/AJ/AL*****

Aluminum enclosure – Model code option **j** : A, H, 3, D, S, 4, 9

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | xx °C...+80°C | -40°C...+32°C |
| T5 | xx °C...+95°C | -40°C...+47°C |
| T4 | xx °C...+130°C | -40°C...+57°C |
| T3 ...T1 | xx °C...+150°C | -40°C ...+48°C |

Stainless steel precision casted enclosure – Model code option **j** : V, 5, W

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | xx °C...+80°C | -40 °C...+30°C |
| T5 | xx °C...+95°C | -40 °C...+45°C |
| T4 | xx °C...+130°C | -40 °C...+47°C |
| T3 ...T1 | xx °C...+150°C | -40 °C ...+34°C |

Stainless steel electro-polished enclosure & plastic enclosure - Model code option **j** : 8, K, R

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | xx °C...+80°C | -40°C...+29°C |
| T5 | xx °C...+95°C | -40°C...+44°C |
| T4 | xx °C...+130°C | -40°C...+36°C |
| T3 ...T1 | xx °C...+150°C | -40°C ...+19°C |

The lower limit of the process temperature depends on the seal type as per model code option **hi**.

The following lower limits are replacing the wildcard "xx °C" based on the model code option of the seal type.

- AA = PEEK / FKM (SHS FPM 70C3 GLT): **-40°C**
- AC = PEEK / FFKM (Kalrez 6230): **-15°C**
- AE = PEEK / FFKM (Kalrez 6375): **-20°C**
- AG = PEEK / FFKM (Perlast G75B): **-15°C**
- AJ = PEEK / FFKM (Perlast G74S): **-15°C**
- AL = PEEK / EPDM (A+P 70.10-02): **-55°C**

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1198X

Issue 0

PS6X(Z)(*).2*W**F*AX/AZ/A3/A4/A5*****

PS6X(Z)(*).2*W**T*AB*****

PS6X(Z)(*).2*W**C*AB*****

Aluminum enclosure – Model code option **j** : A, H, 3, D, S, 4, 9

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C ...+41°C |
| T5 | -40°C...+95°C | -40°C ...+56°C |
| T4 | -40°C...+130°C | -40°C ...+72°C |
| T3...T1 | -40°C...+195°C | -40°C ...+62°C |

Stainless steel precision casted enclosure – Model code option **j** : V, 5, W

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C ...+40°C |
| T5 | -40°C...+95°C | -40°C ...+55°C |
| T4 | -40°C...+130°C | -40°C ...+66°C |
| T3...T1 | -40°C...+195°C | -40°C ...+49°C |

Stainless steel electro-polished enclosure & plastic enclosure - Model code option **j** : 8, K, R

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -40°C...+80°C | -40°C ...+41°C |
| T5 | -40°C...+95°C | -40°C ...+56°C |
| T4 | -40°C...+130°C | -40°C ...+66°C |
| T3...T1 | -40°C...+195°C | -40°C ...+47°C |

PS6X(Z)(*).2*W**F*AX/AZ*****

Aluminum enclosure – Model code option **j** : A, H, 3, D, S, 4, 9

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -196°C...+80°C | -10°C ...+41°C |
| T5 | -196°C...+95°C | -10°C ...+56°C |
| T4 | -196°C...+130°C | -10°C ...+72°C |
| T3...T1 | -196°C...+195°C | -10°C ...+62°C |

Stainless steel precision casted enclosure – Model code option **j** : V, 5, W

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -196°C...+80°C | -10°C ...+40°C |
| T5 | -196°C...+95°C | -10°C ...+55°C |
| T4 | -196°C...+130°C | -10°C ...+66°C |
| T3...T1 | -196°C...+195°C | -10°C ...+49°C |



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1198X

Issue 0

Stainless steel electro-polished enclosure & plastic enclosure - Model code option **j** : 8, K, R

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | -196°C...+80°C | -10°C ...+41°C |
| T5 | -196°C...+95°C | -10°C ...+56°C |
| T4 | -196°C...+130°C | -10°C ...+66°C |
| T3...T1 | -196°C...+195°C | -10°C ...+47°C |

PS6X(Z)(*).2*W**C*AA/AC/AE/AG/AJ/AL*****

Aluminum enclosure – Model code option **j** : A, H, 3, D, S, 4, 9

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | xx °C...+80°C | -40°C...+36°C |
| T5 | xx °C...+95°C | -40°C...+51°C |
| T4 | xx °C...+130°C | -40°C...+65°C |
| T3 ...T1 | xx °C ...+150°C | -40°C ...+58°C |

Stainless steel precision casted enclosure – Model code option **j** : V, 5, W

| Temperature Class | Process temperature range (at the antenna in zone 0 / EPL Ga) | Ambient temperature range (at the equipment in zone 0 / EPL Ga) |
|-------------------|---|---|
| T6 | xx °C...+80°C | -40 °C...+35°C |
| T5 | xx °C...+95°C | -40 °C...+50°C |
| T4 | xx °C...+130°C | -40 °C...+57°C |
| T3 ...T1 | xx °C ...+150°C | -40 °C ...+48°C |

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

| Issue | Date | Report number | Comment |
|-------|--------------|---------------|---------------------------------------|
| 0 | 27 July 2022 | R80129729A | The release of the prime certificate. |

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 Due to the risk of electrostatic discharge the non-metallic parts of the equipment have to be protected from electrostatic charging during installation and operation. This includes but is not limited to prevent friction to the enclosure surface or by the process medium as well as exposition to high voltage fields.
- 15.2 To avoid the risk of electrostatic charging of metal parts the equipment must be connected to the equipotential bonding (transition resistance $\leq 1 \text{ M}\Omega$) by the use of the equipotential bonding clamp of the equipment.
- 15.3 The equipment must be mounted and protected in a way that mechanical processes are avoided which may produce sparks due to friction, impact or abrasion.



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1198X

Issue 0

- 15.4 All parts of the equipment which are in contact with the process medium must only be used in such a medium the materials are sufficiently resistant against.
- 15.5 For the equipment types with rinsing connection it must be ensured that a degree of ingress protection of IP67 is provided at the connection to the reflux valve when used as an EPL Ga/Gb equipment. After removing the reflux valve or the rinsing facility on the reflux valve, the opening must be closed with a suitable screwed plug so that the degree of ingress protection of IP67 is sufficiently maintained.
- 15.6 For the equipment types with a swivelling holder it must be ensured that a degree of ingress protection of IP67 is sufficiently maintained when operated as an EPL Ga/Gb equipment and after aligning the antenna by using the swivelling holder and after screwing on the tension flange.
- 15.7 For applications requiring the use of EPL Ga/Gb equipment, the following types of equipment (incorporating the option "S" for the model code parameter "u") may also be connected to supply and signalling circuits in type of protection intrinsic safety "ib":
- PS6X(Z)(*).2*W**B/T/F/C*****H*C***** S
 - PS6X(Z)(*).2*W**B/T/F/C*****H*H***** S
 - PS6X(Z)(*).2*W**B/T/F/C*****A*C***** S
 - PS6X(Z)(*).2*W**B/T/F/C*****A*H***** S

After being connected to supply and/or signalling circuits in type of protection intrinsic safety "ib" the equipment is not allowed to be used as an equipment of type of protection intrinsic safety "ia" or to be connected to circuits in type of protection intrinsic safety "ia" anymore. The equipment is required to be marked accordingly.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 PRODUCTION CONTROL

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders.
- 17.2 The equipment incorporates the previously certified components PLICSCOM 3 (certified under TÜV 15 ATEX 161127U and IECEx TUN 16.0002U) and Enclosure type Platform II (certified under IECEx BVS 14.0077U and BVS 14 ATEX E 121 U). It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this device. The manufacturer shall inform CSA of any modifications to the device that may impinge upon the explosion safety design of the equipment.



Certificate Annexe

Certificate Number: CSAE 22UKEX1198X

Product: VEGAPULS 6X with model code PS6X(Z)(*).*****

Manufacturer: VEGA Grieshaber KG

Issue 0

| Drawing | Sheets | Rev. | Date (Stamp) | Title |
|----------------|--------|------|--------------|--|
| LP1627-1 | 1 of 1 | 1 | 21-Mar-22 | Layout ZEP4-EMVX |
| LP1639-1 | 1 of 1 | 1 | 21-Mar-22 | Layout ZEP4-KXX |
| LP1618-1 | 1 to 8 | 1 | 21-Mar-22 | Layout PULSP4W-H-SIL |
| SB1627-1 | 1 of 1 | 1 | 21-Mar-22 | Schematic ZEP4-EMVX |
| SB1639-1 | 1 of 1 | 1 | 21-Mar-22 | Schematic ZEP4-KXX |
| SB1618-1 | 1 to 3 | 1 | 21-Mar-22 | Schematic PULSP4W-H-SILX |
| BB1627-1 | 1 of 1 | 1 | 21-Mar-22 | Assembly Diagram ZEP4-EMVX |
| BB1639-1 | 1 of 1 | 1 | 21-Mar-22 | Assembly Diagram ZEP4-KXX |
| BB1618-1 | 1 to 2 | 1 | 21-Mar-22 | Assembly Diagram PULSP4W-H-SIL |
| GE2593 | 1 of 1 | 02 | 21-Mar-22 | Feed-through for KLEMP3 plicsplus |
| GE4317 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X Threaded version with/without glass windows G/NPT |
| GE4342 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X plastic horn antenna ø75 plastic housing |
| GE4343 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X plastic horn antenna ø75 Ex d / XP |
| GE4347 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X ATS plastic horn antenna with adapter flange |
| GE4348 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X glass window ø24 |
| GE4365 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X flange with plastic plating PTFE / PFA |
| GE4367 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X ATS DN25, DN50, DN80 flange painted with plastic plating |
| GE4368 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X flange with lens antenna PEEK |
| GE4369 | 1 of 1 | --- | 21-Mar-22 | Return valve G1/8 VEGAPULS 6X |
| GE4370 | 1 of 1 | --- | 21-Mar-22 | VEGAPULS 6X flushing ring universal flange, adapter flange |
| BS275 | 1 of 1 | --- | 21-Mar-22 | PS6XHW Sensor Electronic HART |
| BS276 | 1 of 1 | --- | 21-Mar-22 | PS6XHW Sensor Electronic HART two chambered housing |
| BS277 | 1 of 1 | --- | 21-Mar-22 | PS6XHW Sensor Electronic HART-SIL two chambered housing |
| VEGAZW-6-80886 | 1 to 8 | 0 | 24 Jun 22 | Specification Type Plate VEGAPULS 6X Intrinsic Safety UKEX |



CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK

This certificate and its schedules may only be reproduced in its entirety and without change

DQD544.21 Issue 3 (2022-04-14)

Page 1 of 1