



UK - Type Examination Certificate

- (1)
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres –
UKSI 2016:1107 (as amended)
- (3) UK - Type Examination Certificate Number

EPS 23 UKEX 1 123 U

Revision 1

- (4) Component: Gas Detection Sensors type KGS 701, KGS 702, KGS 703, KGS 704, KGS 801, KGS.802, KGS 803, KGS 804, KGS 901, KGS 902, KGS 903
- (5) Manufacturer: Korea New Ceramics Co., Ltd.
- (6) Address: 31 Wonmi-ro 177beon-gil, Bucheon-si, Gyeonggi-do
14559 South Korea
- (7) This component and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
- (8) Bureau Veritas Consumer Products Services United Kingdom Limited, approved body No. 8507 in accordance with UKSI 2016:1107 (as amended) Part 4, certifies that this component has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Schedule 1 of UKSI 2016:1107 (as amended). The examination and test results are recorded in the confidential documentation under the reference number 17TH0258.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1:2014

- (10) The sign "U" placed behind the certificate number indicates that this certificate shall not be confounded with certificates issued for equipment or protective systems. This certificate is valid for a component without an autonomous function in sense of UKSI 2016:1107 (as amended) and does not authorize for the UK-marking to be applied according to regulation 39 (3). This component certificate only serves as a basis for the issuing of certificates for equipment or protective systems.
- (11) This UK - Type Examination Certificate relates only to the design and construction of the specified component in accordance with UKSI 2016:1107 (as amended). Further requirements apply to the manufacture of this component and its placing on the market. Those requirements are not covered by this certificate.
- (12) The marking of the component shall include the following:



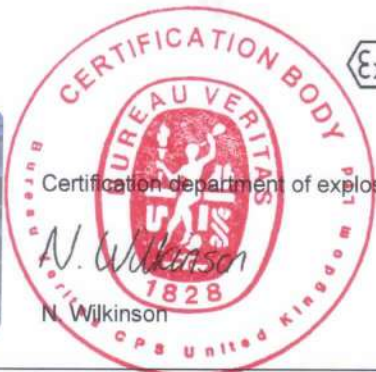
II 2G Ex db IIC Gb

II 1G Ex da IIC Ga

Certification department of explosion protection

Warrington, 17-01-2024

N. Wilkinson
N. Wilkinson



Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited, EPS 23 UKEX 1 123 U, Revision 1.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 4b Olympic Way
Birchwood, Warrington, WA2 0YL

Registered in England & Wales
Company Number: 00852439

ZERT-0009-GBR-ZE-EX-V01 / TEMP-0005-GBR-ZE-EX-V01



(13)

Annex

(14) **UK - Type Examination Certificate EPS 23 UKEX 1 123 U**

Revision 1

(15) Description of component:

This is a pellistor or catalytic bead sensor for the combustible gas detection. This sensor consists of a matched pair of elements, one active and the other for compensation. The active bead is coated with a catalyst that, when in contact with a combustible hydrogen, hydrocarbon or solvent, causes the gas or vapor to "burn" or oxidize at concentrations below the Lower Explosive Limit (LEL). This oxidization process raises the temperature of the active bead and increases the resistance of the internal wire coil. The second bead does not have the catalytic coating and provides compensation for environmental conditions including temperature and humidity.

Electrical data:

Type	Operating Voltage U	Operating Current I
KGS 701 and KGS 801	3.0 V DC	76 +/- 6 mA
KGS 702 and KGS 802	3.3 V DC	74 +/- 6 mA
KGS 703 and KGS 803	4.25 V DC	56 +/- 6 mA
KGS 704 and KGS 804	2.2 V DC	70 +/- 6 mA
KGS 901	3.0 V DC	76 +/- 6 mA
KGS 902	2.0 V DC	270 +/- 20 mA
KGS 903	2.0 V DC	70 +/- 6 mA

(16) Reference number: 17TH0258

(17) Notes for manufacture, installation and operation in EPL Gb:

The ambient temperature range amounts $-40\text{ }^{\circ}\text{C} \leq T_{\text{amb}} \leq +55\text{ }^{\circ}\text{C}$.

The sensor must be installed within apparatus that provides sufficient ingress protection. The supply voltage shall not exceed the values as indicated above for example by use of intrinsic safe power supply.

Notes for manufacture, installation and operation in EPL Ga:

The ambient temperature range amounts $-20\text{ }^{\circ}\text{C} \leq T_{\text{amb}} \leq +55\text{ }^{\circ}\text{C}$.

The sensor shall be supplied by a circuit of Level of Protection "ia", with a maximum dissipated power limited to max 1.3 W.

The sensor must be installed within apparatus that provides sufficient ingress protection and connection method must be assessed to comply with a type of protection suitable for the specific EPL.

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited, EPS 23 UKEX 1 123 U, Revision 1.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 4b Olympic Way
Birchwood, Warrington, WA2 0YL

Registered in England & Wales
Company Number: 00852439



UK - Type Examination Certificate EPS 23 UKEX 1 123 U

Revision 1

(18) Essential health and safety requirements:

Met by compliance with standards.



Certification department of explosion protection

Warrington, 17-01-2024

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited, EPS 23 UKEX 1 123 U, Revision 1.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 4b Olympic Way
Birchwood, Warrington, WA2 0YL

Registered in England & Wales
Company Number: 00852439

ZERT-0009-GBR-ZE-EX-V01 / TEMP-0005-GBR-ZE-EX-V01