

UK-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

UK-Type Examination Certificate Number: **BAS21UKEX0563X Issue 1**

Product: **Type PEX7250 Annunciator**

Manufacturer: **Eaton Electric Limited**

Address: **Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL**

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

SGS United Kingdom Ltd. (formerly SGS Baseefa Ltd.), Approved Body number 1180, in accordance with Regulations 42 and 43 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 BAS prefix to the Certificate Number indicates that the certificate was issued by SGS Baseefa Ltd. prior to the name change to SGS United Kingdom Ltd. Such certificates remain valid with their original number.

The examination and test results are recorded in a confidential report identified in the revision table at item 20.

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

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-11:2012 EN 60079-31:2013

except in respect of those requirements listed at item 18 of the Schedule.

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

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.

The marking of the product shall include the following:

 **See Schedule**

SGS Customer Reference No. **0703**

Project File No. **23/0371**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS United Kingdom Limited

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Schedule

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Certificate Number BAS21UKEX0563X – Issue 1

15 Description of Product

The Type PEX7250 Annunciator Unit is rated up to 240Va.c. or 24Vd.c., 2.5A with a maximum internal dissipation of 90.05W.

The annunciator electronics assembly is housed within a IP66/67 Cortem Type CCFE-4-3020 or EJB-4-3020 Enclosure which may be fitted with a large window, as detailed by Component Certificate CESI 00 ATEX 036 U or IECEx CES 14.0017U

The enclosure contains an annunciator assembly comprising an arrangement of up to the following individual components in a variety of combinations:

- a. 56 LED boards
- b. A TAR module
- c. 28 alarm boards with repeat relays
- d. A power supply unit rated up to 100W.
- e. 50 terminals.
- f. A heater rated up to a maximum of 15W and / or sounder rated up to 3W
- g. MTL5521 Solenoid / alarm driver (SGS23ATEX0018 or IECEx BAS 23.0012)

When fitted with the MTL 5521 solenoid / alarm driver, the maximum input is limited to 40W at a maximum ambient of +40°C. When the enclosure is fitted with the MTL5521, the enclosure must only be mounted vertically.

The Option C configuration of the Type PEX7250 Annunciator Unit incorporates 'SIL725' alarm boards with SIL2 rated repeat relay outputs. This option permits the equipment to be independently certified for SIL2 applications.

The equipment may be marked as below:

Option A

⊕ II 2GD Ex db IIB+H₂ T* Gb (Tamb -20°C to +**°C)
Ex tb IIIC T*°C Db (Tamb -20°C to +**°C) IP66/67

T Class for gas *	T Class for dust *	Ambient **
T6	T85°C	-20°C to +40°C
T5	T100°C	-20°C to +55°C

Option B (when fitted with MTL5521)

⊕ II 2(1)GD Ex db [ia Ga] IIB+H₂ T6 Gb (Tamb -20°C to +40°C)
Ex tb [ia Da] IIIC T85°C Db (Tamb -20°C to +40°C) IP66/67

Option C (when fitted with SIL 725 product)

⊕ II 2GD Ex db IIB+H₂ T6 Gb (Tamb -20°C to +40°C)
Ex tb IIIC T85°C Db (Tamb -20°C to +40°C) IP66/67

To obviate the risk of hotspots and capacitor storage associated with the Type PEX7250 Annunciator Unit the enclosure must not be opened when an explosive gas atmosphere is present. A label is fitted to each and every enclosure which states this information.

Internal and external earthing facilities are provided.

Cable entry holes are provided as specified on the certified drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable certified

flameproof stopping plugs. The cable entry devices, thread adapters and stopping plugs shall be suitably certified as equipment (not component).

When the Type PEX7250 Annunciator unit is fitted with the MTL5521 solenoid / alarm driver, the following parameters are applicable:

Hazardous Area Terminals 2 / 3 w.r.t. 1

$$\begin{array}{ll} U_o = 25V & C_i = 0 \\ I_o = 147mA & L_i = 0 \\ P_o = 0.92W \end{array}$$

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area load connected must not exceed the following values:

GROUP	CAPACITANCE (μF)	INDUCTANCE (mH)	OR	L/R RATIO ($\mu H/\Omega$)
IIC	0.11	1.4		40
IIB**	0.84	7.2		159
IIA	2.97	14.4		328
I	4.87	20.2		478

** Group IIB parameters also applicable for associated apparatus [Ex ia Da] IIIC

Notes:

- 1) The above load parameters apply when one of the two conditions below is given:
 - the total L_i of the external circuit (excluding the cable) is $< 1\%$ of the L_o value or
 - the total C_i of the external circuit (excluding the cable) is $< 1\%$ of the C_o value.
- 2) The above parameters are reduced to 50% when both of the two conditions below are given:
 - the total L_i of the external circuit (excluding the cable) is $\geq 1\%$ of the L_o value and
 - the total C_i of the external circuit (excluding the cable) is $\geq 1\%$ of the C_o value.

The reduced capacitance of the external circuit (including cable) shall not be greater than $1\mu F$ for Groups IIB, IIA & I and $600nF$ for Group IIC.

16 Report Number

See Item 20 – Certificate History

17 Specific Conditions of Use

1. It is the responsibility of the installation engineer to ensure that suitably ATEX or UKEX equipment certified Ex db IIB+H₂ Cable glands and blanking plugs are installed to ensure that the IP rating of IP66/67 is maintain on the Ex d enclosure.
2. When the enclosure is fitted with the MTL5521, the enclosure must only be mounted vertically.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
13	Protection against other hazards (LVD type requirements, etc.)
14	Overloading of equipment (protection relays, etc.)
22(1)	External effects
22(2)	Aggressive substances, etc.



19 Drawings and Documents

Other than for Issue 0, Drawings and Documents that are introduced at a new edition of the certificate are marked with an asterisk symbol:

Number	Sheet	Issue	Date	Description
CE6536	1	8	11.23	Certification label for PEX7250 Explosion proof annunciator

For all other drawings see Baseefa06ATEX0089 Issue 5

20 Certificate History

Certificate No.	Date	Comments
BAS21UKEX0563X Issue 0	9 November 2022	Prime Certificate Report Number: 21(C)0386/37 Project Number: 21/0386 Original issue of the certificate
BAS21UKEX0563X Issue 1	4 December 2023	To permit minor updates to the marking label to include an IECEx certification number and to include relevant I.S. output parameters, where applicable. Report Number: 23(C)0371 Project Number: 23/0371
For drawings applicable to each issue, see original of that issue.		