

EU - TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

EU - Type Examination Certificate **Baseefa06ATEX0089X – Issue 5**
Number:

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

Product: **Type PEX7250 Annunciator**

Manufacturer: **Eaton Electric Limited**

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

This re-issued certificate extends EC Type Examination Certificate No. **Baseefa06ATEX0089X** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No.

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: 2014

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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive 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 Fimko Oy Customer Reference No. **0703**

Project File No. **23/0371**

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13 **Schedule**

14 **Certificate Number Baseefa06ATEX0089X – Issue 5**

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

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)

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)

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

U_o	=	25V	C_i	=	0
I_o	=	147mA	L_i	=	0
P_o	=	0.92W			

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 (μ F)	INDUCTANCE (mH)	OR	L/R RATIO (μ H/ Ω m)
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 μ 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 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
1.2.7	Protection against other hazards (LVD type requirements, etc.)
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
CE6535	1	3	10.23	General arrangement PEX7250 Annunciator
CE6536	1	8	11.23	Certification label for PEX7250 Explosion proof annunciator

The above drawings are common to Baseefa06ATEX0089X and IECEx SGS 23.0076X

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
CE6565	1	2	06.19	Cable Entry location and dimensions for PEX7250 explosion proof annunciator

The above drawings are common to Baseefa06ATEX0089X and IECEx SGS 23.0076X

20 Certificate History

Certificate No.	Date	Comments
Baseefa06ATEX0089	11 April 2006	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 2997 + Amendments 1 and 2, EN 50018: 2000 + Amendment 1 and EN 50281-1-1: 1998 + Amendment 1, is documented in certification report No. 05(C)0212.
Baseefa06ATEX0089/1	19 November 2007	To permit the introduction of an alternative temperature classification of T100°C for a maximum ambient temperature of +55°C, as detailed on project file 06/0428. No report.
Baseefa06ATEX0089/2	29 August 2008	To permit an alternative P725B/C Series, or a type SIL 725 annunciator to be fitted. To permit a reduction of the number of annunciator modules and the addition of a heater rated up to 15W, and / or a sounder rated up to 3W. To permit the addition of a MTL5021 intrinsically safe barrier to BAS01ATEX7148 if required. When fitted with the barrier, the annunciator is limited to 40W input, a maximum ambient temperature of +40°C, and the enclosure must be mounted vertically. To declare that the Type PEX7250 annunciator Is suitable for use within a hydrogen atmosphere and in compliance with EN 60079-0: 2006, En 60079-1: 2004, EN 61241-0: 2006 and EN 61241-1: 2004, as detailed on project file 08/0548. No report.
Baseefa06ATEX0089/3	18 April 2013	To review the product against the additional design and test requirements of EN 60079-0: 2009, EN 60079-1: 2007 and EN 60079-31: 2009 (Superseding EN 61241-0 & EN 61241-1). To allow for the Ingress Protection rating of IP66/67 (based on the component certified enclosure). To allow for an alternative Temperature Class / ambient temperature combination of T100°C (Tamb = +55°C) for units not fitted with the MTL5021 Intrinsically Safe Barrier. As detailed on project file 12/0727. No report.

Certificate No.	Date	Comments
Baseefa06ATEX0089X Issue 4	11 June 2019	<p>This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0: 2012 + A11: 2013, EN 60079-1: 2014, EN 60079-11: 2012 and EN 60079-31: 2013.</p> <p>To replace MTL5021 Intrinsically Safe barrier with an equivalent MTL5521 alarm driver.</p> <p>To clarify and correct the product marking.</p> <p>To permit minor drawing changes that do not affect certification. An 'X' has been added to the certificate number at this issue, to include specific Conditions of Use relating to the product orientation and cable gland requirements as previously assessed. As documented in certification report No. 16(C)0371.</p> <p>To allow a change to the manufacturers name as this appears on the certificate.</p>
Baseefa06ATEX0089X Issue 5	5 December 2023	<p>To confirm the current design meets the requirements of EN IEC 60079-0: 2018 including minor changes to the marking label to introduce an IECEx certificate reference.</p> <p>To allow minor changes to the internal arrangements to increase the maximum power dissipation for 'option A'.</p> <p>To update the certificate reference for the MTL5521 alarm driver.</p> <p>To permit minor drawing updates in line with the requirements of EN IEC 60079-0: 2018.</p> <p>The associated assessment is documented in Certification Report No. 23(C)0371.</p>
For drawings applicable to each issue, see original of that issue.		