Certificate Number Baseefa14ATEX0362 Issue 2

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EU - TYPE EXAMINATION CERTIFICATE

- Equipment or Protective System Intended for use in Potentially Explosive Atmospheres

 Directive 2014/34/EU
- 3 EU Type Examination Certificate Baseefa14ATEX0362 Issue 2
 Number:
- 3.1 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.

4 Product: Auteldac 5

5 Manufacturer: Gai-Tronics (A Division of Hubbell Limited)

6 Address: Burton-Upon-Trent, Staffordshire, DE13 0BZ

- This re-issued certificate extends EC Type Examination Certificate No. Baseefa14ATEX0362 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.
- 8 SGS Baseefa, Notified Body number 1180, 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 examination and test results are recorded in confidential Report No. GB/BAS/ExTR16.0377/00

- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
 - EN 60079-0:2012+A11:2013 EN 60079-7:2007 EN 60079-18:2009 EN 60079-11:2012 EN 60079-31:2014

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

- 10 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:
 - (Ex) II 2G Ex e ib mb IIC T4/T5 Gb
 - (Ex) II 2D Ex ib th IIIC T180°C Db (dust certified models only)

SGS Baseefa Customer Reference No. 0752

Project File No. 14/0303

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SGS Baseefa Limited

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R S SINCLAIR ALVANO OFFI TECHNICAL MANAGER On behalf of SGS Baseefa Limited

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13 Schedule

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15 Description of Product

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The Auteldac 5 is a rugged weatherproof telephone for use in explosive atmospheres designed to be used with PBX/PSTN networks. The handset may be supplied with either a curly cord or a stainless steel cord. The optional keypad may have up to 18 buttons.

It comprises an encapsulated main circuit board and an unencapsulated keypad circuit board housed inside a sealed glass reinforced polyester body. On non-dust certified models, a connector is present for connection to external certified headsets.

The external terminations are made via component certified glands at Ex e approved terminal blocks. Connections are made for the telephone wire, a ring relay (NO contacts which closes in sympathy with cadence), and opto-isolated loop contacts (NO contact which closes whilst the phone is off hook). Gland holes are provided for cable entry and an earthing stud may be used to ground.

The external terminations are made via Ex e approved glands at Ex e approved terminal blocks mounted adjacent to the main PCB. The terminals are component certified under SIR01ATEX3247U using EN 60079-0:2004 and EN 60079-7:2003.

Models that have either a front entry metal handset cord, or are painted, or have a headset fitted are non-dust models.

All models carry the markings:-

- $\langle E \rangle$ II 2G Ex e ib mb IIC T4 Gb (-20°C \leq Ta \leq +60°C)
- $\langle \xi x \rangle$ II 2G Ex e ib mb IIC T5 Gb (-20°C \leq Ta \leq +50°C)

Models certified for dust use are also marked:-

 $\langle \xi x \rangle$ II 2D Ex ib th IIIC T180°C Db (-20°C \leq Ta \leq +60°C)

TERMINAL PARAMETERS

Telephone Connection TB 7 to 12

 $U_{\rm m}=253{\rm Vrms}$

The equipment is designed to operate from a standard PBX/PSTN with an on hook rated voltage of 70V d.c. + 100V rms, and an off hook rated voltage of 40V d.c plus either 70V r.m.s. ≤60Hz continuous or 100V r.m.s. ≤60Hz cadenced at 50:50 duty cycle. The maximum power input is defined as 15W (IEC60950:2000 cl. 1.4.11).

Loop Contact TB 1 & 2

 $U_{\rm m}=253{\rm Vrms}$

The loop contacts are designed to switch 250V a.c. at up to 150mA.

Ringing Contact TB 3 & 4

 $U_{\rm m}=253{\rm Vrms}$

The ringing contacts are designed to switch 250V a.c. at up to 3A.

Headset Connector

 $U_{\rm o} = 8.51 {\rm V}$

 $I_0 = 414 \text{mA}$

 $P_{\rm o} = 0.673 \, {\rm W}$

 $C_i = 0.6 \mu F$

 $L_{\rm i}$ = negligible

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

GROUP	CAPACITANCE	INDUCTANCE	OR	L/R RATIO
	(μF)	(mH)		(μH/ohm)
IIC	2.5	0.10 *		15 *
IIB	26.9	0.41 *		61 *
IIA	1000	1.6		240

The above load parameters apply where:

- 1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values, or
- 2. The inductance and capacitance are distributed as in a cable, or
- 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and lumped capacitance, up to 50% of each of the L and C values is allowed.

Note * - These values are not subject to further 50% reductions where lumped capacitance or inductance is connected because C_i already exceeds 1% of C_o for groups IIB and IIC and the 50% reduction factor has already been applied.

16 Report Number

GB/BAS/ExTR16.0377/00

17 Specific Conditions of Use

None

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	LVD type requirements
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
212-01-5000-000	1	7	29/11/16	Auteldac 5 Certification Block Diagram
212-01-5000-000	2	9	22.06.16	Auteldac 5 External General Arrangement
212-01-5000-000	3	9	22.06.16	Auteldac 5 Internal General Arrangement
212-01-5000-000	4	4	22.06.16	Auteldac 5 Component Details
212-01-5000-000	5	7	22.06.16	Auteldac 5 Certification Label
212-01-5000-000	6	4	22.06.16	Auteldac 5 Enclosure Sealing Details
212-01-5000-000	7	1	22.06.16	Auteldac 5 External General Arrangement For Side Entry Metallic Handset Cord

These drawings are common to and held with IECEx BAS 14.0165 Issue 3.

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Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
500-01-0650-000	1	5	18.11.14	Auteldac 5 Main Physical Encapsulation & Potting box Details
500-01-0650-000	2	6	29.09.14	Auteldac 5 Main Physical Encapsulation & Potting box Details
999-01-1157-000	1	6	05/08/13	Auteldac 5 Keypad
999-01-1157-000	2	4	12/11/13	Auteldac 5 Keypad Top Ident
999-01-1157-000	3	4	12/11/13	Auteldac 5 Keypad Top Artwork
999-01-1157-000	4	4	12/11/13	Auteldac 5 Keypad Bottom Artwork
999-01-1157-000	5	4	12/11/13	Auteldac 5 Keypad Bottom Ident
999-01-1158-000	1 to 4	16	24/11/14	Auteldac 5
999-01-1158-000	5	3	12/11/13	Auteldac 5 main Board Top Ident
999-01-1158-000	6	3	12/11/13	Auteldac 5 main Board Top Artwork
999-01-1158-000	7	3	12/11/13	Auteldac 5 main Board Layer 2 Artwork
999-01-1158-000	8	3	12/11/13	Auteldac 5 main Board Layer 3 Artwork
999-01-1158-000	9	3	12/11/13	Auteldac 5 main Board Bottom Artwork
999-01-1158-000	10	3	12/11/13	Auteldac 5 main Board Top Resist
999-01-1158-000	11	3	12/11/13	Auteldac 5 main Board Bottom Resist

Note: These drawings are common to and held with IECEx BAS14.0165.

20 Certificate History

Certificate No.	Date	Comments	
Baseefa14ATEX0362	16 January 2015	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2012, EN 60079-7:2007, EN 60079-18:2009 & EN 60079-31:2014 is documented in GB/BAS/ExTR12.0282/00 for project 12/0130.	
Baseefa14ATEX0362 Issue 1 (re-issued 11 November 2015)	14 July 2015	This issue of the certificate permits a revision of the routine testing requirements, updates the headset connector load parameters, updates the EN 60079-18:2009 frequency limits, incorporates previously issued primary & supplementary certificates into one certificate. The associated test and assessment is documented in GB/BAS/ExTR12.0282/01 & GB/BAS/ExTR15.0201/00 for project 15/0426.	
Baseefa14ATEX0362 Issue 2	21 December 2016	This issue of the certificate permits changes to the sealing materials and the additional option of a side entry metal handset cord. The associated test and assessment is documented in report GB/BAS/ExTR16.0377/00. Project 14/0303.	
For drawings applicable to each issue, see original of that issue.			