IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 19.0187**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2020-04-29)
Date of Issue:	2021-01-28		

Applicant: **GAI-TRONICS (A Division of Hubbell Limited)**
Brunel Drive
Stretton Business Park
Burton-Upon-Trent
Staffordshire
DE13 0BZ
United Kingdom

Equipment: **Auteldac 6 Telephone**

Optional accessory:

Type of Protection: **Increased Safety "eb", Intrinsic Safety "ib", Encapsulation "mb", Dust Ignition "tb"**

Marking: Ex eb ib mb IIC T4 Gb

Ex ib tb IIIC T135°C Db

Ta= -40°C to +60°C

Approved for issue on behalf of the IECEx Certification Body: **D R Stubbings BA MIET**

Position: **Technical Director**

Signature: (for printed version)

Date: 2021-01-28

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 19.0187**

Date of issue: 2021-01-28 Issue No: 1

Manufacturer: **GAI-TRONICS (A Division of Hubbell Limited)**
Brunel Drive
Stretton Business Park
Burton-Upon-Trent
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Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR19.0241/00 GB/CML/ExTR21.0017/00

Quality Assessment Report:

GB/BAS/QAR06.0039/09

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Auteldac 6 is a rugged weatherproof VoIP telephone for use in explosive atmospheres. The handset may be supplied with either a front entry curly cord or a side entry stainless steel cord. The optional keypad may have up to 18 buttons.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: NO
See Annex for details

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 1: To permit the following changes:

1. Changes to component values
2. Additional pins added to programming header

Annex:

IECEx CML 19.0187 Iss. 1 Certificate Annex.pdf

Annexe to:	**IECEx CML 19.0187 Issue 0**
Applicant:	**GAI-Tronics (a division of Hubbell Limited)**
Apparatus:	**Auteldac 6**

Description

The Auteldac 6 is a rugged weatherproof VoIP telephone for use in explosive atmospheres. The handset may be supplied with either a front entry curly cord or a side entry stainless steel cord. The optional keypad may have up to 18 buttons.

It comprises two Printed Circuit Boards (PCB's) inside a non-metallic enclosure. The main PCB is encapsulated apart from the field wiring terminals and a programming header for factory use only.

The external terminations are made via equipment certified cable glands at Ex eb certified terminal blocks. An optional socket may be present for connections to an external headset.

The Auteldac 6 is designed to be powered over the incoming Ethernet connections from a supply conforming to IEEE802.3:2002 or via a 57V d.c. maximum supply connected to the power terminals.

All models are suitable for use in areas that require equipment protection level Gb or Db.

The equipment has the following terminal parameters:

Power Input, Ethernet Port & Isolated Output Connections (Ex eb connections)

Um= 253V rms

The Auteldac 6 is designed to be powered over the incoming Ethernet connections from a supply conforming to IEEE802.3:2002 or via a 57V d.c. maximum supply connected to the Power terminals.

Signalling output (Ex eb connections)

The isolated output is designed to switch a 250VAC 5A signal.

Optional Headset Connector (Ex ib connections)

Uo= 6.5V
Io= 97mA
Po= 157mW
Ci= 0
Li= 0

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

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	25	3.78		225
IIB	570	15.1		902
IIA	1000	30.2		1804

The above load parameters apply where:

1. The external circuit contains no combined lumped inductance Li and capacitance Ci 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. The reduced capacitance of the external circuit (including cable) shall not be greater than 1µF for Groups I, IIA and IIB, or greater than 600nF for Group IIC.

Variation 1: To permit the following changes:

i. Changes to component values
ii. Additional pins added to programming header

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. Each encapsulated assembly shall be visually inspected. No damage shall be evident, such as cracks in the compound, exposure of encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.

iii. The equipment shall be subjected to an electric strength test in accordance with the requirements of IEC 60079-7 Clause 6.1 using a test voltage of 1500 Vac applied between the supply terminals and earth point, for a period of 1 second. Alternatively, a d.c. test voltage is allowed as an alternative to the a.c. test voltage and shall be 170% of the specified a.c. r.m.s. test voltage.

iv. Each encapsulated main board assembly shall be subjected to an electric strength test in accordance with IEC 60079-18 Clause 9.2 using a test voltage of 1500 Vac applied between the terminals and the surface of the encapsulant, and between the switching contact terminals and all other terminals, for a period of 1 second.
Alternatively:
    - a voltage of 20% higher may be applied for 0.1 second
    - a d.c. test voltage is allowed as an alternative to the a.c. test voltage and shall be 170% of the specified a.c. r.m.s. test voltage.

Alternatively, the equipment may be subjected to batch testing in accordance with IEC 60079-18 Ed. 4.1 Annex C.

Specific Conditions of Use

None