

EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 EC – Type Examination Certificate Number: **Baseefa03ATEX0005X**
- 4 Equipment or protective system: **E+ ACCESS PANEL TYPES AP1 & AP2**
- 5 Manufacturer: **GAI-TRONICS LIMITED**
- 6 Address: **Burton Upon Trent, Staffordshire, DE13 0BZ**
- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 Baseefa (2001) Ltd. Notified body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Annex II to the Directive.
- The examination and test results are recorded in confidential Report No. 02(C)0298 dated 3rd February 2003
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN50014:1997 + Amd 1 & 2 and EN50020:2002
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 equipment or protective system is subject to special conditions of safe use specified in the schedule to this certificate.
- 11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.
- 12 The marking of the equipment or protective system shall include the following :

Ⓔ II 2 G EEx ib HB T4

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0752

Project File No. 02/0298

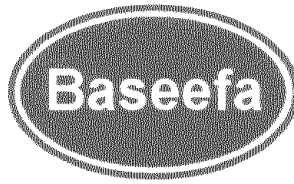
This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa (2001) Ltd.

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RP R S SINCLAIR

DIRECTOR
On behalf of
Baseefa (2001) Ltd.



Schedule

15 Description of Equipment or Protective System

The E+ Access Panel Types AP1 & AP2 are designed for use with the Public Address and General Alarm (PAGA) system. It provides the facility for making audio announcements and for sounding and cancelling alarms. The Access Panel can be fully duplicated so that it provides two sets of control and audio signals which are isolated from each other.

The Access Panel comprises a front fascia with an array of light emitting diodes, several matrices of push buttons, light emitting diodes and a socket connector for a microphone. Some of the switches are fitted with a hinged plastic cover. The microphone may be either a fixed stalk type or a hand held fist type.

To the rear of the front fascia is the Key Board printed circuit and up to two identical Main Boards, one for each of the two systems. Each one of the Main Boards connects to its own Terminal Board using ribbon cable connections. The Terminal Boards are mounted to the inside of the back box which fits over the electronics to provide a metal housing.

Connections to external circuits are made at the terminals on the Terminal Boards via gland entries in the back box.

The Access Panel has two versions: AP1 Desktop version AP2 Rack Mount version.

Input Parameters

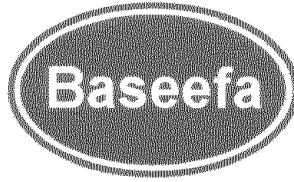
On any one of the two Terminal PCBs

| | |
|---|---|
| Power Supply Terminal TB4, 1 w.r.t. 2 | $U_i = 28V$ $I_i = 93mA$ $P_i = 0.65W$ |
| Data Terminal TB2, 1 w.r.t. 3 and 2 w.r.t. 3 | $U_i = 7.5V$ $I_i = 750mA$ $P_i = 1.41W$ (each channel) |
| Audio Terminal TB1, 1 w.r.t. 3 and 2 w.r.t. 3 | $U_i = 7.5V$ $I_i = 750mA$ $P_i = 1.41W$ (each channel) |

The circuit connected to each of the two Terminal printed circuit boards must be considered as a separate intrinsically safe circuit.

Output Parameters

| | |
|-----------------------|---|
| Terminals TB3 and TB4 | $U_o = 0$ $C_i = 0$ $L_i = 0$ |
| Data Terminals TB2 | $U_o = 9.2V$ $I_o = 93mA$ $P_o = 0.65W$ $C_i = 0$ $L_i = 0$ |



Audio Terminals TB1 U_o = 4.5V
 I_o = 18mA
 P_o = 4mW
 C_i = 0
 L_i = 0

16 Report No.

02(C)0298

17 Special Conditions for Safe Use

1. The E+ Access Panel must be cleaned only with a damp cloth to avoid the danger of ignition due to a build up of an electrostatic charge

18 Essential Health and Safety Requirements

None additional to those covered by the standards listed at item 9

As follows, in addition to those covered by the standards listed at item 9

19 Drawings and Documents

| Number | Sheet | Issue | Date | Description |
|-----------------|-------|-------|----------|----------------------------------|
| 319-01-0000-000 | 1 | 5 | 27.01.03 | Block Circuit Diagram |
| 319-01-0000-000 | 2 | 5 | 27.01.03 | General Arrangement AP1 |
| 319-01-0000-000 | 3 | 5 | 27.01.03 | General Arrangement AP2 |
| 319-01-0000-000 | 4 | 5 | 27.01.03 | Component Details |
| 319-01-0000-000 | 5 | 5 | 27.01.03 | Marking Label |
| 319-01-0000-000 | 6 | 5 | 27.01.03 | Switch cover |
| 999-01-1018-000 | 1 | 3 | 13.12.03 | Keypad Schematic |
| 999-01-1018-000 | 2 | 4 | 06.01.03 | Keypad PCB Artwork, Layer 1 |
| 999-01-1018-000 | 3 | 4 | 06.01.03 | Keypad PCB Artwork, Layer 2 |
| 999-01-1018-000 | 4 | 4 | 06.01.03 | Keypad PCB Artwork, Top Ident |
| 999-01-1018-000 | 5 | 4 | 06.01.03 | Keypad PCB Artwork, Bottom Ident |
| 999-01-1019-000 | 1 | 3 | 13.12.03 | Main PCB Schematic |
| 999-01-1019-000 | 2 | 4 | 06.01.03 | Main PCB Artwork, Layer 1 |
| 999-01-1019-000 | 3 | 4 | 06.01.03 | Main PCB Artwork, Layer 2 |
| 999-01-1019-000 | 4 | 4 | 06.01.03 | Main PCB Artwork, Layer 3 |
| 999-01-1019-000 | 5 | 4 | 06.01.03 | Main PCB Artwork, Layer 4 |
| 999-01-1019-000 | 6 | 4 | 06.01.03 | Main PCB Artwork, Top Ident |
| 999-01-1019-000 | 7 | 4 | 06.01.03 | Main PCB Artwork, Bottom Ident |
| 999-01-1044-000 | 1 | 1 | 29.05.02 | Termination PCB Schematic |
| 999-01-1044-000 | 2 | 3 | 06.01.03 | Termination PCB Layer 2 |
| 999-01-1044-000 | 3 | 3 | 06.01.03 | Termination PCB Top Ident |