1 EC - TYPE EXAMINATION CERTIFICATE

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

3 EC - Type Examination Certificate Number: **Baseefa03ATEX0195X**

4 Equipment or Protective System: **PRE-AMPLIFIER TYPE IA2100**

5 Manufacturer: **AV TECHNOLOGY LIMITED**

6 Address: **Stockport, Cheshire, SK3 0XU**

7 This equipment or protective system 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)0461**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + Amds 1 & 2 **EN 50020: 2002** **EN 50284: 1999**
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 for 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. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

e II 1G EEx ia IIC T4 ($-20^{o}C \leq T_a \leq 70^{o}C$)

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

Baseefa (2001) Ltd. Customer Reference No. **0098**

Project File No. **02/0469**

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.
Health and Safety Laboratory Site, Harpur Hill,
Buxton, Derbyshire SK17 9JN
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216
e-mail info@baseefa2001.biz web site www.baseefa2001.biz
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton, Derbyshire, SK17 9BJ

R S SINCLAIR

DIRECTOR
On behalf of
Baseefa (2001) Ltd.

Schedule

14 **Certificate Number Baseefa03ATEX0195X**

Description of Equipment or Protective System

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The Pre-amplifier is designed to enhance signals from a remote certified sensor and transmit the signals to a certified Interface Unit located in a non-hazardous area.

The apparatus comprises an electronics printed circuit board mounted in an aluminium enclosure. An encapsulated filter unit sub-assembly, either low or high passband, is mounted on the main electronics pcb.

Electrical connections are made via coaxial sockets.

Input Parameters

U_i =14.47V
I_i = 428mA
P_i = 1.17W
C_i = 0.576µF
L_i/R_i = 30µH/Ω

Output Parameters

U_o =14.47V
I_o = 3.7mA
P_o = 14mW
C_o = 0.65µF
L_o/R_o = 30µH/Ω

Report Number

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02(C)0461

Special Conditions for Safe Use

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1. The apparatus does not meet the 500V electric strength test required by Clause 6.4.12 of EN50020:2002 and this must be taken into account during installation.
2. The apparatus has an aluminium enclosure which must be installed where ignition from impact and friction is avoided.

Essential Health and Safety Requirements

18

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

Drawings and Documents

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Number	Issue	Date	Description
02/1841/01/0005	5	8.7.03	General assy
02/1841/14/0004	3	25.6.03	Circuit
02/1841/01/0003	1	22.5.90	Pre-amp PCB assy
02/1841/02/0020	1	23.5.90	Inductor
02/1841/02/0019	1	23.5.90	Heat sink
02/1841/02/0015	2	25.6.03	Insulation board
02/1841/15/0016	1	23.5.90	Pre-amp silk screen
02/1841/15/0017	1	23.5.90	Pre-amp ground plane
02/1841/15/0018	1	23.5.90	Pre-amp track layout
02/1487/02/0002	2	4.7.03	High pass filter circuit
02/1487/02/0004	2	20.6.03	High pass filter PCB assy
02/1487/02/0003	1	25.2.89	High pass filter PCB component layout
02/1487/14/0001	1	4.12.89	High pass filter track layout
02/0479/14/0500	5	9.7.03	Filter 190BIS, 450BIS & 650 BIS circuit
4479/273	F	20.6.03	Filter 450BIS, 650BIS assy
4479/244	B	7.10.88	Filter 450BIS, 650BIS track layout
4479/272	E	20.6.03	Filter 190 assy
4479/204	B	8.10.86	Filter 190 track
4479/205	B	8.10.86	Filter 190 track