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: **Baseefa03ATEX0590X**

4 Equipment or Protective System: **Type FGDIO Intrinsically Safe Output Module**

5 Manufacturer: **Status Scientific Controls Ltd**

6 Address: **Mansfield, Nottinghamshire, NG18 5ER**

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. **03(C)0043/1**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amds 1 & 2 **EN 50020: 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 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 :

⟨Ex⟩ **II (1)G [EEx ia] IIC**

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

Baseefa (2001) Ltd. Customer Reference No. **2056**

Project File No. **03/0043**

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.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

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13 **Schedule**

14 **Certificate Number Baseefa03ATEX0590X**

15 **Description of Equipment or Protective System**

The Type FGDIO Intrinsically Safe Output Module is designed to limit the power transfer from unspecified safe area apparatus to Intrinsically Safe circuits in a hazardous area.

It comprises fuses, zener diodes, resistors and terminal blocks mounted on printed circuit boards and contained in a plastic enclosure.

Input Connector

U_m = 253Vrms

Output Terminals 1 & 2

U_o = 28V
I_o = 112mA
P_o = 0.8W
C_i = 0
L_i = 0

Output Terminals 4 and 3

U_o = 7.5V
I_o = 660mA
P_o = 1.24W
C_i = 0
L_i = 0

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the load connected to the output terminals 1 and 2 (28V output) must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	0.083	1.82 (3.0)		44
IIB	0.650	5.46 (12.0)		177
IIA	2.150	14.5 (25.0)		355

When the external circuit contains no lumped inductance i.e. the L_i of any attached apparatus is zero, the cable inductance may be increased to the values within parentheses.

The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the load connected to the output terminals 4 and 3 (7.5V output) must not exceed the following values:

GROUP	CAPACITANCE (µF)	INDUCTANCE (mH)	OR	L/R RATIO (µH/ohm)
IIC	11.1	0.07		28
IIB	174	0.28		114
IIA	1000	0.56		228

16 Report Number

03(C)0043/1

17 Special Conditions for Safe Use

1. The hazardous area terminals of the apparatus are not protected against unauthorised interference as required by Clause 6.1 of EN 50020: 2002. The apparatus must be installed such that the input terminals are protected to at least the requirements of IP20.

18 Essential Health and Safety Requirements

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

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
SSC06/10036	1	1	28.05.03	G.A. of I.S. Output Module Type FGDIO
SSC06/108	1	1	11.03.98	Circuit Diagram