



## EC - TYPE EXAMINATION CERTIFICATE

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

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- 3 EC - Type Examination Certificate Number: **Baseefa06ATEX0036X**
- 4 Equipment or Protective System: **IOP Series Surge Protection Devices**
- 5 Manufacturer: **Atlantic Scientific Corporation (MTL Global Surge Technologies)**
- 6 Address: **4300 Fortune Place, Suite A, W. Melbourne, Florida 32904, USA**
- 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. **06(C)0104**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 50014: 1997 + A1 & A2 EN 50020: 2002 EN 60079-26: 2004**  
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 :

**⊕ II 1G EEx ia IIC T4 (-30°C ≤ T<sub>a</sub> ≤ See Schedule)**

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

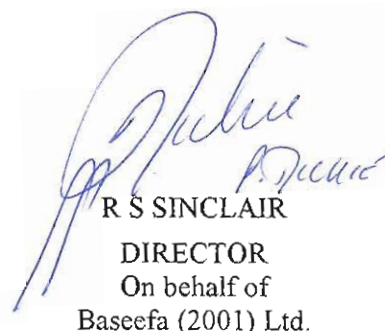
Baseefa Customer Reference No. 5229

Project File No. 06/0104

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

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



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## Schedule

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Certificate Number Baseefa06ATEX0036X

### 15 Description of Equipment or Protective System

The IOP Series Surge Protection Devices are designed to provide protection for sensitive electronic equipment, and are intended to be mounted within a Hazardous Area. Two versions are considered, a single channel, IOP32 and a dual channel, IOP32D; for the dual channel version both channels must form part of the same intrinsically safe circuit. A single break-over voltage 90V is available and both units have the same safety input parameters for intrinsic safety purposes. Both units have an earth connection which utilises the mounting foot.

Each channel comprises two series resistors, a 3-terminal gas discharge tube and a silicon avalanche diode mounted on a printed circuit board. This circuit is repeated on the same printed circuit board, within the IOP32D dual channel version. The printed circuit board assembly is housed within an MTL7700 Series plastic enclosure, which is provided with two / four input and two / four output terminals in addition to the base spring, which provides the earth connection and the mounting of the units on a DIN earthing rail. The lower part of the enclosure is encapsulated to consolidate the mounting arrangement.

All units are marked  $\text{Ex}$  II 1 G EEx ia IIC T4 For the Ambient Temperature limits, see below.

The parameters for both the IOP32 and IOP32D Surge Protection Devices are:-

#### Input : Field Terminals J1-1/2 (J2-3/4)

$$U_i = 60\text{V}$$

$$P_i = 1\text{W} \quad (-30^\circ\text{C} \leq T_a \leq 80^\circ\text{C}) \text{ or}$$

$$P_i = 1.2\text{W} \quad (-30^\circ\text{C} \leq T_a \leq 60^\circ\text{C}) \text{ or}$$

$$P_i = 1.3\text{W} \quad (-30^\circ\text{C} \leq T_a \leq 40^\circ\text{C})$$

$$C_i = 0$$

$$L_i = 0$$

For the IOP32D Dual Channel Surge Protection Device the terminal identification is shown in brackets and both channels must form part of the same intrinsically safe circuit.

#### Output : Surge Protected Terminals J3-3/4 (J3-5/6, J4-1/2)

$$U_o = U_i$$

$$I_o = I_i$$

$$P_o = P_i$$

### 16 Report Number

06(C)0104

### 17 Special Conditions for Safe Use

1. The plastic enclosure may present an electrostatic risk and must not be rubbed with a dry cloth or cleaned with solvents.
2. Both the IOP32 and IOP32D Surge Protection Devices will not meet the 500V insulation requirements to earth, therefore suitable precautions must be taken when installing the apparatus.



**18 Essential Health and Safety Requirements**

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

**19 Drawings**

<b>Number</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
1100468	1	-	06JAN06	Index Sheet
1100468	2	-	06JAN06	Circuit Diagram
1100468	3	-	06JAN06	Component Layout
1100468	4	-	06JAN06	Enclosure
1100468	5	-	06JAN06	Certification Label
1100468	6	-	06JAN06	Terminal Label