



EC-TYPE EXAMINATION CERTIFICATE

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

EC-Type Examination Certificate Number : **BAS02ATEX1001**

Equipment or Protective System: **016XXX FLAME SENSOR**

Manufacturer: **TALENTUM DEVELOPMENTS LIMITED**

Address: **Oldham Lancashire, OL2 8PF**

This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

The Electrical Equipment Certification Service, notified body number 600 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 N°

01(C)0937 dated 3 September 2002

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + Amds 1 & 2 **EN 50020: 1994** **EN 50284: 1999**
except in respect of those requirements listed at item 18 of the Schedule.

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.

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.

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

 **II 1 G** **EEx ia IIC T4**

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

File No: **EECS 3715/02/002**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



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I M CLEARE
DIRECTOR
9 September 2002



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Description of Equipment or Protective System

The 016XXX Flame Sensor is designed to detect the flicker from a flame or a spark. The apparatus comprises two printed circuit boards (PCB's), an infra-red detector, light emitting diodes (LED's) and two relays for output signals. All are housed within a polycarbonate or a metal enclosure having a window at the front for the sensor and to permit viewing of the LED's. External electrical connections are made via glands in the enclosure wall and screw type terminals on the main board.

As an option the sensor assembly may be located at the rear of the enclosure by means of a alternative backplate and a bayonet type fitting which houses the alternative sensor assembly.

The XXX in the apparatus title represent characters that describe the different mechanical arrangements of the Flame Sensor and do not affect intrinsic safety.

Input Parameters

Terminal T1 w.r.t. T2 and Terminal T3 w.r.t. T4

$$\begin{aligned}U_i &= 30V \\I_i &= 100mA \\P_i &= 0.65W \\C_i &= 30nF \\L_i &= 0\end{aligned}$$

Terminal T5 w.r.t. T6 and Terminal T7 w.r.t. T8

$$\begin{aligned}U_i &= 30V \\I_i &= 100mA \\C_i &= 0 \\L_i &= 0\end{aligned}$$

Output Parameters

Terminal T5 w.r.t. T6 and Terminal T7 w.r.t. T8

$$U_o = 0$$

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Special Conditions For Safe Use

None.



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Essential Health and Safety Requirements

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by standards listed in Section 9		
Clause	Subject	Compliance
1.1.3	Changes in characteristics of materials and combinations thereof	Report No 01(C)0937 Clause 5.1.1.3
1.2.2	Components for incorporation or replacement	Report No 01(C)0937 Clause 5.1.2.2
1.2.5	Additional means of protection	Report No 01(C)0937 Clause 5.1.2.5
1.2.7	Protection against other hazards	Report No 01(C)0937 Clause 5.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report No 01(C)0937 Clause 5.1.4.2

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DRAWINGS

Number	Issue	Date	Description
A1/1468/01	A	13 August 2002	General arrangement
A2/1468/02	A	August 05, 2002	Circuit diagram, front PCB
A2/1468/03	A	August 14, 2002	Circuit diagram, main PCB
1700/099.DRLDWG	A	August 2002	Drilling diagram, front PCB
1700/099.SSBOT	A	August 2002	Component layout, front PCB
1700/099.TOP	A	August 2002	Artwork, top, front PCB
1700/099.BOT	A	August 2002	Artwork, bottom, front PCB
1700/098.DRLDWG	A	August 2002	Drilling diagram, main PCB
1700/098.SSTOP	A	August 2002	Component layout, top, main PCB
1700/098.TOP	A	August 2002	Artwork, top, main PCB
1700/098.INNER1	A	August 2002	Artwork, inner layer 1, main PCB
1700/098.PWR	A	August 2002	Artwork, inner layer PWR, main PCB
1700/098.GND	A	August 2002	Artwork, inner layer GND, main PCB
1700/098.INNER2	A	August 2002	Artwork, inner layer 2, main PCB
1700/098.SSBOT	A	August 2002	Component layout, bottom, main PCB
1700/98.BOTTOM	A	August 2002	Artwork, bottom, main PCB
A4/1468/04	A	30.08.02	Label
A4/1275/06	A	7/2/97	Circuit diagram, rear viewing sensor
A4/1468/05	A	23.08.02	Alternative general arrangement, rear viewing sensor

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BASEEFA List Keywords
2SENSOR



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EC - Type Examination Certificate Number: **BAS02ATEX1001/1**

4 Equipment or Protective System: **016XXX Flame Sensor**

5 Manufacturer: **Talentum Developments Ltd.**

6 Address: **Oldham, Lancashire, OL2 8PF**

7 This supplementary certificate extends EC - Type Examination Certificate No. BAS02ATEX1001 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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

Baseefa Customer Reference No. 3715

Project File No. 08/0086

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

Baseefa

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4306578. Registered address as above.

A handwritten signature in black ink, appearing to read "R S Sinclair".

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



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Certificate Number BAS02ATEX1001/1

15 **Description of the variation to the Equipment or Protective System**

Variation 1.1

The equipment covered by this certificate has been reviewed against the requirements of EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007 in respect of the differences from EN 50014:1997 +A1 & A2, EN 50020:1994 and EN 50284:1999 and that none of these differences affect this equipment.

16 **Report Number**

08(C)0086

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
A4/1468/04	-	B	17.04.08	Label