



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 : **BAS01ATEX2265**

4 Equipment or Protective System: **A TYPE F FLOATSWITCH**

5 Manufacturer: **T.A.V. ENGINEERING LTD**

6 Address: **Christchurch, Dorset, BH23 4HD**

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 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°

00(C)0630 dated 18 July 2001

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

**EN 50014: 1997 + Amds 1 & 2 EN 50018: 2000
EN 50281-1-1: 1998 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. 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:-

⊕ Ex II 1/2 GD EEx d IIC T110°C (T_{amb} = -50°C to + 100°C)

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

File No: **EECS 1059/01/002**

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.



**Electrical Equipment Certification Service
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**I M CLEARE
DIRECTOR
1 August 2001**



13 **Schedule**

14 **EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2265**

15 **Description of Equipment or Protective System**

The Type F Float Switch comprises a cylindrical enclosure with a spigoted cover attached by four screws of grade A4-80 stainless steel. The enclosure and cover can be cast or machined from solid, and be manufactured from a range of specified materials including carbon steel and stainless steel. The base which may be threaded or provided with a welding spigot for attachment to the process media, is drilled to house a stem tube containing up to four hermetically sealed reed switches or thermal switches, or a combination of both. The switches are rated up to 250V a.c. or d.c., 3A. The stem tube is fully potted and the reed switches are actuated by an external float containing a magnet. The enclosure contains terminals, and an internal earth facility.

Alternatively, the stem tube may contain a number of reed switches and resistors, and the enclosure contains terminals and a printed circuit board to provide a 4-20 mA output.

A cable entry hole is provided as specified on the certified drawings for the accommodation of suitable BASEEFA certified flameproof cable entry device, with or without the interposition of a suitable BASEEFA certified flameproof thread adapter.

Suitable flameproof cable entry devices and thread adapters certified as Equipment (not a Component) under an EC Type Examination Certificate to Directive 94/9/EC may also be used in the manner specified above.

16 **Report No.**

BASEEFA Certification Report No. 00(C)0630 dated 18 July 2001

17 **Special Conditions For Safe Use**

None

18 **Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.0.2	Analysis of possible operating faults	Manufacturer's Instructions
1.0.3	Special checking and maintenance conditions	No special requirements
1.0.6	Instructions	Manufacturer's Instructions
1.2.2	Components for incorporation or replacement	No user serviceable parts
1.2.4	Dust deposits	BASEEFA Report No. 00(C)0630
1.2.5	Additional means of protection	Not applicable
1.2.7	Protection against other hazards	BASEEFA Report No. 00(C)0630
1.3.5	Hazards arising from pressure compensation	Not applicable
1.5.	General requirements for safety devices	Not applicable



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Schedule

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EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2265

Clause	Subject	Compliance
1.6.1	Manual override	Not applicable
1.6.2	Emergency shutdown	Not applicable
1.6.3	Hazards arising from power failure	Not applicable
1.6.5	Placing of warning devices as parts of equipment	Not applicable
2.0.	Category M	Not applicable
2.1.	Category 1	BASEEFA Report No. 00(C)0630
2.2.1	Category 2G	BASEEFA Report No. 00(C)0630
2.2.2	Category 2D	BASEEFA Report No. 00(C)0630
2.3.	Category 3	Not applicable
3.	Requirements for protective systems	Not applicable

19 DRAWINGS

Number	Sheet	Issue	Date	Description
2000	1	1	02.11.00	General Assembly
2000	2	1	02.11.00	Switch and Mounting Arrangements
2000	3	1	27.06.00	Certification Label
2000	4	1	05.11.97	Switch and Mounting Arrangements
2000	5	1	09.11.00	4-20 mA Output Version
DT1404 & DT1405	1	1	04.12.00	Enclosure and Cover Details - Machined
DT1400 & DT1401	1	1	30.11.00	Enclosure and Cover Details - Cast

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BASEEFA List Keywords
2FLOWSWI



EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

SIRA VARIATION NUMBER 1 (ONE) Dated 5 August 2003

VARIATION TO EQUIPMENT

To permit:

- 1 The equipment to be assessed against EN 13463-1:2001 and to include this standard in the list of documents that assures compliance with the Essential Health and Safety Requirements; in consequence, a condition of certification has been introduced that relates to issues involved with potential electrostatic discharges.

DESCRIPTIVE DOCUMENTS

Number	Sheet	Rev	Date	Description
2000	2 of 5	2	-	Equipment specification

ADDITIONAL SIRA CONDITIONS OF CERTIFICATION

- 1 When the user/installer has specified that the float and mounting flange surface should be made from a non-metallic material, then the manufacturer shall advise them about to the possibility of the build-up of electrostatic charge on such surfaces including the precautions that are necessary in order to avoid the occurrence of dangerous electrostatic discharges e.g Do not rub with a dry cloth.

File No. 53V10326

Report No. NA

C Ellaby
Certification Officer

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Sira Certification Service is a service of Sira Test & Certification Ltd



EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

SIRA VARIATION NUMBER 2 (TWO) Dated 17 May 2005

VARIATION TO EQUIPMENT

To permit:

1 A change of the Applicant's name on the certificate:

To: TAV Engineering, a division of Crydom Magnetics Ltd

2 The introduction of administrative amendments of drawings that change the revision status but do not affect the technical content.

DESCRIPTIVE DOCUMENTS

Drawing No	Sheet	Rev	Description
2000	1 of 5	2	General assembly
2000	2 of 5	3	Switch and mounting arrangements
2000	3 of 5	3	Certification label
2000	4 of 5	2	Switch and mounting arrangements
2000	5 of 5	2	4 – 20 mA output version
DT1400 & DT1401	1 of 1	2	Machining drawing
DT1404 & DT1405	1 of 1	2	Machining drawing

ADDITIONAL SIRA CONDITIONS OF CERTIFICATION

None

File No 52V12972

Report No. R52V12972A

C Ellaby
Certification Officer

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

VARIATION NUMBER 3 (THREE) Dated 8 June 2006

VARIATION TO EQUIPMENT

To permit:

- 1 A change of the Manufacturer's and Certificate Holder's name and address on the certificate:

From:

TAV Engineering a Division of Crydom
Magnetics Ltd

To:

TAV Engineering a division of cynergy3
components Ltd

- 2 The label will show 'TAV Engineering'

DESCRIPTIVE DOCUMENTS

None

ADDITIONAL CONDITIONS OF CERTIFICATION

None

D R Stubbings BA MIET
Certification Manager

File No. 52A15008
Report No. R52A15008A

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

VARIATION NUMBER 4 (FOUR) Dated 3 July 2007

VARIATION TO EQUIPMENT

To permit:

- 1 Following appropriate assessment to demonstrate conformity with the requirements of the EN 60079 series of standards, the documents used to demonstrate compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, are now assured by compliance with the following documents:

EN 60079-0: 2006
EN 60079-1: 2004
EN 60079-26: 2004
EN 61241-0: 2004
EN 61242-1: 2004
EN 13463-1:2001

The product marking now becomes:



II 1/2 GD
Ex d IIC T4 (T_{amb} -50°C to +100°C)
Ex tD A20/A21 T110°C IP6X

DESCRIPTIVE DOCUMENTS

Drawing	Sheet	Issue	Date	Description
2000	1 of 5	3	(Sira stamp) 13 Jun 07	General Assembly
2000	2 of 5	4	13 Jun 07	Mounting Arrangements
2000	3 of 5	5	13 Jun 07	Certification Label
2000	4 of 5	3	13 Jun 07	Switch Arrangements
2000	5 of 5	3	13 Jun 07	4-20mA Output version
DT1404 & DT1405	1 of 1	2	13 Jun 07	Enclosure and Cover Details - Machined
DT1400 & DT1401	1 of 1	2	13 Jun 07	Enclosure and Cover Details - Cast

ADDITIONAL CONDITIONS OF CERTIFICATION

None

File No. 51A16193

Report No. R51A16193A

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

VARIATION NUMBER 5 (FIVE) Dated 11 March 2008

VARIATION TO EQUIPMENT

To permit:

1 A change of the Applicant's name on the certificate:

From:
TAV Engineering a division of cynergy3 components Ltd

To:
TAV Engineering Components Limited

The label will show 'TAV Eng'

2 The introduction of administrative amendments of drawings that change the revision status but do not affect the technical content.

DESCRIPTIVE DOCUMENTS

Drawing No.	Sheet	Rev	Date	Description
2000	3 of 5	6	(Sira stamp) 11 Mar 08	Float Switch Label

ADDITIONAL CONDITIONS OF CERTIFICATION

File No. 52A17698

Report No. R52A17968A

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

Sira VARIATION NUMBER 6 (SIX) Dated 12 February 2010

VARIATION TO EQUIPMENT

To permit:

- 1 A change of the Applicant's address on the certificate:

From:
Units 13 & 14 Airspeed Way
Priory Industrial Park
Christchurch
Dorset BH23 4HD
UK

To:
7 Cobham Road
Ferndown Industrial Estate
Wimboune
Dorset BH21 7PE
UK

DESCRIPTIVE DOCUMENTS

ADDITIONAL CONDITIONS OF CERTIFICATION

The manufacturer shall substitute, on the approved label affixed to the apparatus, the new name for the old name.

File No. 21128

Report No. R21128A/00

**D R Stubbings BA MIET
Certification Manager**

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 Dated 1 August 2001

Sira VARIATION NUMBER 7 (SEVEN) Dated 28 March 2011

VARIATION TO EQUIPMENT

To permit:

1 A change of the Applicant's NAME on the certificate:

From:
TAV Engineering Components Limited

To:
CYNERGY3 COMPONENTS LIMITED

DESCRIPTIVE DOCUMENTS

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
2000	3 of 5	8	28 Mar 11	Floatswitch, labels

ADDITIONAL CONDITIONS OF CERTIFICATION

File No. 24619

Report No. R24619A/00

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EC TYPE-EXAMINATION CERTIFICATE VARIATION

CERTIFICATE NUMBER BAS01ATEX2265 **Dated** 1 August 2001

Sira VARIATION NUMBER 8 (EIGHT) **Dated** 22 August 2014

VARIATION TO EQUIPMENT

To permit:

- 1 The use of a smaller, alternative cover for mounting onto smaller cast enclosures.

DESCRIPTIVE DOCUMENTS

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
DT1533	1 of 1	AA	14 Aug 14	Flameproof machined cover from bar for DT1400

ADDITIONAL CONDITIONS OF CERTIFICATION

None

File No. 70008010

Report No. R70008010A

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