

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 **Baseefa02ATEX0214X**
Number :

4 Equipment or protective system: **A Type GR2 Pressure Switch**

5 Manufacturer : **Delta Controls Limited**

6 Address : **West Molesey, Surrey, KT8 2UZ**

7 This equipment 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)0227**

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

EN 50014 :1997 + Amendments 1 & 2, EN 50018 : 2000

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 of 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 :

⊕ II 2G EEx d IIC T6 T_{amb}= -40°C to +60°C or T4 T_{amb}= -40°C to +85°C

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

Baseefa (2001) Ltd. Customer Reference No. **0279**

Project File No. **02/0227**

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

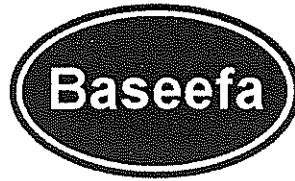
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216
e-mail info@baseefa2001.biz web site www.baseefa2001.biz
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Derbyshire, SK17 9BJ

R S SINCLAIR

DIRECTOR

On behalf of

Baseefa (2001) Ltd.



Schedule

15 Description of Equipment or Protective System

A Type GR2 Pressure Switch comprises a cast aluminium outer housing into which screws a hermetically sealed microswitch assembly secured in position by a combined locking and external earth plate. The welded stainless steel microswitch assembly houses up to two microswitches each rated up to 250V a.c., 11A, and the electrical connections are provided by permanently attached leads passing through specified potting compound.

At the process end of the housing, an operating shaft passes through a threaded bush which is secured into a threaded entry in the housing using a thread locking compound. The operating shaft is retained using an enlarged internal diameter and/or a circlip. The outer housing is provided with a venting arrangement to prevent process pressure from entering the flameproof part of the housing.

Cable entry holes are provided as specified on the certificate schedule drawings for the accommodation of suitable BASEEFA certified flameproof cable entry devices, with or without the interposition of a suitable BASEEFA certified flameproof thread adapter. Any unused cable entry hole is to be fitted with a suitable BASEEFA certified flameproof stopping plug.

Suitable flameproof cable entry devices, thread adapters and stopping plugs 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.

VARIATION 0.1

Alternative process connection attached to the outer housing to provide an alternative pressure switch designated;

A Type GR4

VARIATION 0.2

Alternative process connections attached to the outer housing to provide differential pressure switches designated;

i) **A Type GR3**

ii) **A Type GR6**

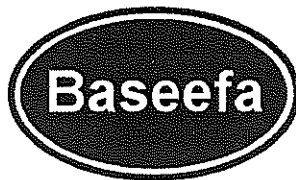
VARIATION 0.3

Alternative process connections attached to the outer housing to provide a temperature switch designated;

A Type GR7

VARIATION 0.4

Alternative use of cast stainless steel for the outer housing.



16 Report No.

02(C)0227

17 Special Condition for Safe Use

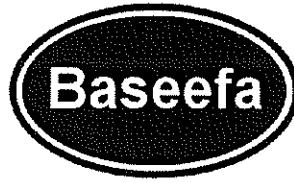
The permanently attached leads must be suitably protected against mechanical damage and terminated in a suitable junction or terminal facility.

18 Essential Health and Safety Requirements

None additional to those covered by the standards listed at item 9

19 Drawings and Documents

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
14624	C	13/01/2003	GR2 General Arrangement
14625	A	13/01/2003	Certification Label
14626	C	13/01/2003	Snap Switch Detail
14627	A	13/01/2003	GR3/6/7 Details
14628	A	13/01/2003	GR4 Details



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: Baseefa02ATEX0214X/1

4 Equipment or Protective System: A Type GR2 Pressure Switch

5 Manufacturer: Delta Controls Limited

6 Address: West Molesey, Surrey, KT8 2UZ

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0214X 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.

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

Baseefa (2001) Ltd. Customer Reference No. 0279

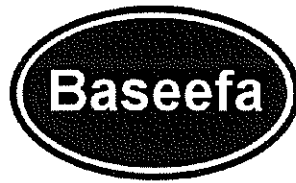
Project File No. 04/0588

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.

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13

Schedule

14

Certificate Number Baseefa02ATEX0214X/1

15

Description of the variation to the Equipment or Protective System

Variation 1.1

Optional alternative vent arrangement incorporating the existing venting device with the addition of a cover plate and seal fitted to the Type GR2 and GR4 variants only.

16

Report Number

Baseefa Report No 04(CI)0588.

17

Special Conditions for Safe Use

None additional to those listed previously.

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	Issue	Date	Description
14757	-	03/08/2004	Optional Vent Device



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: **Baseefa02ATEX0214X/2**

4 Equipment or Protective System: **A Type GR2 Pressure Switch**

5 Manufacturer: **Delta Controls Limited**

6 Address: **West Molesey, Surrey, KT8 2UZ**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0214X 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.

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Baseefa (2001) Ltd. Customer Reference No. 0279

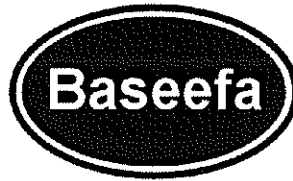
Project File No. 04/0627

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13

Schedule

14

Certificate Number Baseefa02ATEX0214X/2

15

Description of the variation to the Equipment or Protective System

Variation 2.1

Alternative process connection attached to the outer housing of the type GR2 switch to provide a vacuum and compound switch.

16

Report Number

None

17

Special Conditions for Safe Use

None additional to those listed previously.

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	Issue	Date	Description
14758	A	13/08/2004	General Assembly - Vacuum and Compound Switch



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: Baseefa02ATEX0214X/3

4 Equipment or Protective System: A Type GR2 Pressure Switch

5 Manufacturer: Delta Controls Limited

6 Address: West Molesey, Surrey, KT8 2UZ

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0214X 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.

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Baseefa Customer Reference No. **0279**

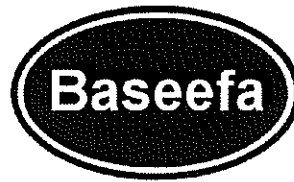
Project File No. **05/0099**

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



13

Schedule

14

Certificate Number Baseefa02ATEX0214X/3

15

Description of the variation to the Equipment or Protective System

Variation 3.1

Optional alternative vent arrangement incorporating a vent hole of increased diameter fitted with a drilled rubber disc.

Variation 3.2

Clarification of label thickness which is now 0.5mm \pm 0.3.

16

Report Number

Baseefa Report No 05(CI)0099.

17

Special Conditions for Safe Use

None additional to those listed previously.

18

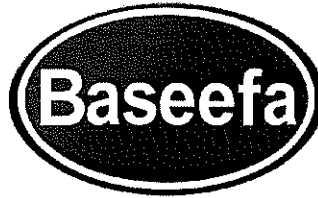
Essential Health and Safety Requirements

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

19

Drawings and Documents

Number	Issue	Date	Description
14624	D	19/05/2005	GR2 General Arrangement
14766	A	07/02/2005	Alternative Vent Arrangement
14625	B	23/06/2005	Certification Label



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: **Baseefa02ATEX0214X/4**
- 4** Equipment or Protective System: **GR2 Pressure Switch**
- 5** Manufacturer: **Delta Controls Limited**
- 6** Address: **West Molesey, Surrey, KT8 2UZ**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0214X 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.

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Baseefa Customer Reference No. 0279

Project File No. 08/0087

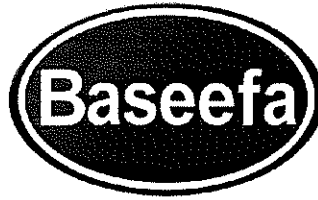
This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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

Baseefa

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R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number Baseefa02ATEX0214X/4

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

Variation 4.1

To confirm that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0: 2006, EN60079-1: 2004, in respect of the differences from EN 5014:1997 + Amendments 1 and 2 and EN50018: 2000 respectively, and that none of these differences affect this equipment.

⊕ II 2 G Exd IIC T6 (T_{amb} - 40°C to + 65°C), or
Exd IIC T4 (T_{amb} - 40°C to + 85°C)

16 **Report Number**

Baseefa Certification Report 08(C)0087

17 **Special Conditions for Safe Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

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

19 **Drawings and Documents**

None



Flameproof Certification

Pressure Test Certificate

Certificate issued to **Delta Controls Limited**
Address **Island Farm Avenue, West Molesey, Surrey, KT8 2UZ**

A representative sample of the equipment covered by certificate **Baseefa02ATEX0214X** has been satisfactorily subject to a pressure test at four times the reference pressure.

Provided that adequate quality control and inspection is maintained during subsequent production, equipment manufactured to this certificate, including supplementaries, need not be subject to the routine individual pressure test that would otherwise be required by the standard to which it has been certified.

The following are not included in this certificate and are to be subject to a routine test:

- **Snap Switch Housing**

This certificate is valid until **16 January 2009** unless earlier revoked or suspended.

Baseefa Customer Reference No. **0279**

Project File No. **05/0817**

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