




EC - TYPE EXAMINATION CERTIFICATE

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

- 1
- 2
- 3 EC - Type Examination Certificate Number: **Baseefa11ATEX0203**
- 4 Equipment or Protective System: **Range of Sentry Pressure Switches**
- 5 Manufacturer: **Delta Controls Limited**
- 6 Address: **Island Farm Avenue, West Molesey, Surrey KT8 2UZ**
- 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, 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. **GB/BAS/ExTR11.0198/00**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN60079-0:2009, EN60079-11:2007 and EN 61241-11:2006
- 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 1GD Ex ia IIC T5 / T6 Ga**
Ex ia IIIC T100°C / T85°C Da
(-60°C ≤ T_a ≤ +80°C) / (-25°C ≤ T_a ≤ +60°C)

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

Baseefa Customer Reference No. **0279**

Project File No. **11/0487**

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

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

13

Schedule

14

Certificate Number Baseefa11ATEX0203

15 Description of Equipment or Protective System

The Range of Sentry Pressure Switches are designed to operate one or two microswitches mounted within an enclosure and connected to intrinsically safe circuits. The microswitches are operated by a mechanical plunger assembly which passes through the enclosure wall and is actuated by an external diaphragm assembly. The external diaphragm assembly may be used to sense pressure, differential pressure or temperature by the use of various different mechanical sensor arrangements.

The apparatus comprises a powder coated aluminium enclosure with a mechanical plunger assembly containing a piston and diaphragm assembly which is connected externally to various process connections. The piston passes through a bushing arrangement into the main enclosure to actuate one or two microswitches. External electrical connections to the microswitches enter the aluminium enclosure via cable glands and are connected to the internal terminals. Although not required for the circuits, an internal earth terminal is provided which is connected to the metallic enclosure.

Each of the microswitches may be single or double pole, double throw switches and all the electrical connections must form part of the same intrinsically safe circuit. Where two microswitches are fitted then all the electrical connections must form part of the same intrinsically safe circuit. The electrical circuits are capable of withstanding a 500V test to earth.

The Range of Sentry Pressure Switches have various different mechanical sensor arrangements which are not controlled by the certification.

U_i	=	30V
I_i	=	300mA
P_i	=	0.6W
C_i	=	0
L_i	=	0

16 Report Number

GB/BAS/ExTR11.198/00

17 Special Conditions for Safe Use

None

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
15670	1	A	23/09/11	Sentry Assembly Ex ia
15671	1	A	23/09/11	Sentry Label Ex ia
15672	1	A	23/09/11	Sentry Sensors Ex ia

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: **Baseefa11ATEX0203/1X**

4 Equipment or Protective System: **Range of Sentry Pressure Switches**

5 Manufacturer: **Delta Controls Limited**

6 Address: **Island Farm Avenue, West Molesey, Surrey, KT8 2UZ**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa11ATEX0203 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.

8 Item 9 of the original Certificate is replaced by “Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN60079-0:2012 and EN60079-11:2012

except in respect of those requirements listed at item 18 of the Schedule.”

9 The marking of the equipment has changed from the original Certificate and shall include the following:

⊕ II 1GD Ex ia IIC T5 / T6 Ga (-60°C ≤T_a ≤+80°C) / (-25°C ≤T_a ≤+60°C)
Ex ia IIC T135°C Da (-60°C ≤T_a ≤+80°C)

This certificate shall be held with the original certificate.

Baseefa Customer Reference No. **0279**

Project File No. **13/0631**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.baseefa.com/terms-and-conditions.asp>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Baseefa Limited


Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR

GENERAL MANAGER

On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa11ATEX0203/1X**

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

Variation 1.1

To confirm that the Range of Sentry Pressure Switches has been extended to include Pressure, Differential Pressure and Temperature Switches and that all models comply with the requirements of EN60079-0:2012 and EN60079-11:2012 and that they may be marked with the certification codes and reduced input parameters:-

Ⓔ II 1GD Ex ia IIC T5 / T6 Ga (-60°C ≤T_a ≤+80°C) / (-25°C ≤T_a ≤+60°C)
Ex ia IIIC T135°C Da (-60°C ≤T_a ≤+80°C)

U_i = 30V, I_i = 250mA and P_i = 0.6W

The electrical circuit may contain one or two micro-switches, (including styles 04, 05, 0G, 0H, 1C, 1D, H2, H3 and H6) which may be single or double pole, double throw switches, but all electrical connections must from part of the same electrical intrinsically safe circuit.

The various different mechanical actuating mechanisms for the switch are independent of the electrical intrinsically safe circuit and are not controlled by the certification. The existing full Range of Sentry Switches included covers:- PO1 - 15Bar Max, PO2 - 155Bar Max, PO3 - 1000Bar Max, DO2 - 110Bar Diff, DO3 - 250Bar Diff, TO1 - 35Bar* and TO2 - 35Bar*. The Sentry Switches marked * are two different versions of Vapour Pressure Temperature Sensors and were initially designated as TO2 - 35Bar* and TO3 - 35Bar* respectively.

A Condition of Certification is added to minimize the risk from electrostatic charging for Dust Hazards.

16 **Report Number**

GB/BAS/ExTR14.0172/00

17 **Specific Conditions of Use**

- 1) The Sentry Pressure, Differential Pressure and Temperature Switches must not be installed in a location where moving dust flow can generate an electrostatic charge on the equipment.

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
15670	1	C	29/05/14	Sentry Assembly Ex ia
15671	1	B	29/05/14	Sentry Label Ex ia
15672	1	B	20/05/14	Sentry Sensors Ex ia

These drawings are common to and are held with IECEx BAS 11.0104X