



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: **Baseefa07ATEX0263X/2**

4 Equipment or Protective System: **A Range of Bap Motion Alignment Sensors and TS Touch Switch Belt Alignment Sensors**

5 Manufacturer: **Don Electronics Limited**

6 Address: **Westfield Industrial Estate, Kirk Lane, Yeadon, Leeds, LS19 7LX**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa07ATEX0263X 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 Customer Reference No. 4340

Project File No. 11/0052

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



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Schedule

14

Certificate Number Baseefa07ATEX0263X/2

15 Description of the variation to the Equipment or Protective System

Variation 2.1

To add minor drawing modifications.

Variation 2.2

To allow an alternative potentiometer arrangement.

16 Report Number

GB/BAS/ExTR11.0026/00

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
WE2002698-1	6	10/12/10	Touchswitch/Bap common drilling/punching details
WE2002698-17A	-	02/02/11	BAP and TS Alternative potentiometer seal arrangement

This drawing is common to and held on IECEx BAS 07.0088X



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4 Equipment or Protective System: **A Range of Bap Motion Alignment Sensors and TS Touch Switch Belt Alignment Sensors**

5 Manufacturer: **Don Electronics Ltd**

6 Address: **Westfield Industrial Estate, Kirk Lane, Yeadon, Leeds, LS19 7LX**

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Baseefa Customer Reference No. **4340**

Project File No. **10/0342**

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

Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
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R S SINCLAIR

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Schedule

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Certificate Number Baseefa07ATEX0263X/1

15 Description of the variation to the Equipment or Protective System

Variation 1.1

To add the TAP switch types: TP11AI, TP11TAI, TP12AI, TP12TAI, TP21AI, TP21TAI, TP22AI, TP22TAI

Variation 1.2

To allow an alternative encapsulant for ingress protection.

Variation 1.3

To update the company address on the certification label.

16 Report Number

GB/BAS/TR10.0136/00

17 Special Conditions for Safe Use

As those listed previously and as follows:

1. An external earth connection is required on the switches/sensors. This can be achieved by either:
 - a. Direct mounting on an earthed metal structure.
 - b. A crimp ring lug connection, suitable for at least a 4mm² cable, to the bolt passing through the hole in the Switch/sensor flange where the paint has been removed. The ring lug shall be prevented from rotating during tightening.

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
WE2000640-2	7	10/06/10	BAP2 sensor assembly detail for conduit entry
WE2000640-3	7	10/06/10	BAP2 sensor assembly detail for cable gland entry
WE2000640-6 BAP21 ATEX	11	22/04/09	BAP sensor label design
WE2002698-2	4	10/06/10	Touchswitch assembly detail for conduit entry
WE2002698-3	2	10/06/10	Touchswitch assembly detail for cable entry
WE2002698-5	10	10/06/10	Touch and Tap switch sensor label design
WE2005873-20	3	20/04/10	Tapswitch cable assembly for TP1 type – 6 core
WE2005873-23	3	10/06/10	Tapswitch drilling/punching details
WE2005873-24	3	06/09/10	Tapswitch assembly with cable and encapsulation

These drawings are common to and held on IECEx BAS07.0088X



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3 EC - Type Examination Certificate Number: **Baseefa07ATEX0263X**

4 Equipment or Protective System: **A Range of Bap Motion Alignment Sensors and TS Touch Switch Belt Alignment Sensors**

5 Manufacturer: **Don Electronics Ltd**

6 Address: **3b Woodside Estate, Low Lane, Horsforth, Leeds, LS18 5NY**

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. **GB/BAS/ExTR07.0151/00**

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

EN 61241-0: 2006 EN61241-1: 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 1D Ex tD A20 IP66 T120°C

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Baseefa Customer Reference No. **4340**

Project File No. **07/0806**

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



13

Schedule

14

Certificate Number Baseefa07ATEX0263X

15 Description of Equipment or Protective System

The Don Electronics BAP Motion Alignment Sensors and TS Touch Switch Belt Alignment Sensors are the Type BAP21V34** and BAP22V34** and the Type TS1V3**, TS1V4**, TS2V3** and TSV4**.

The BAP and TS circuits are mounted inside a 2mm thick steel enclosure that is coated or plated to suit the application. The enclosure is in the form of a small cylinder, 52mm diameter by 32mm deep. Open at one end. The open end has an 86mm diameter external flange with four equally spaced 6.5mm holes on a 73.54mm PCD to allow the enclosure to be fastened in position.

The closed end of the enclosure has two small holes to allow access to a sealed potentiometer for the adjustment of the sensitivity of the device and a sealed LED which indicates motion detection for the BAP and pressure detection on the button of the TS. Electrical connection to the Sensors and Switches is achieved using an integral cable which enters the steel enclosure through a hole in the side fitted with a rubber gland, or to suit customer requirements, there is the provision of a ½" NPT threaded conduit entry. An earth connection is riveted or soldered to the inside of the enclosure prior to encapsulation. An external earth facility is provided via one of the flange mounting screws and suitable accessories.

The circuits are encapsulated with epoxy resin and are protected by a fuse, 2 parallel zener diodes and a 73DegC thermal fuse.

The BAP sensors consist of an inductive sensor and control circuit encapsulated within the steel enclosure. The BAP is fitted with a riveted and sealed 1mm minimum thick stainless steel plate on the open side of the enclosure.

The TS Touch Switch sensors consist of a switch circuit with an internal cavity with a strain gauge located in the centre of the devices that is not filled with encapsulant. A stainless steel plate and button is riveted and sealed over the open end of the enclosure. A metal rod, connected to an external touch switch button, passes completely through the device, and is sealed, allowing an additional test button at the other end. The remainder of the void is filled with silicone grease. There is also a relay that allows the switch to operate an external circuit.

The BAP Sensors and TS Touch Switch sensors are designed for connection to a maximum supply voltage of 24V.

16 Report Number

GB/BAS/ExTR07.0151/00

17 Special Conditions for Safe Use

1. The supply to the unit shall not exceed 24V.
2. Dust layers shall not exceed 50mm.
3. The integral supply cable shall be terminated in a suitable ATEX approved terminal box or in a safe area.
4. If the integral supply cable is not fitted in conduit then it shall be clamped and cleated at least every 300mm.
5. An external earth connection is required on the BAP and TS Touch switch. This can be achieved by either:
 - i. Direct mounting on an earthed metal structure.
 - ii. A crimp ring lug connection, suitable for at least a 4mm² cable, to the bolt passing through the hole in the BAP/TS Touch Switch flange where the paint has been removed. The ring lug shall be prevented from rotating during tightening.



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
WE2000640	1 of 6	5	13/03/08	BAP sensor drilling/punching detail
WE2000640	2 of 6	6	27/03/08	BAP Sensor assembly detail for conduit entry
WE2000640	3 of 6	6	27/03/08	BAP Sensor assembly detail for cable gland entry
WE2000640	4 of 6	3	26/08/04	BAP sensor design schematic
WE2002698-1	---	3	12/03/08	Touchswitch drilling/punching detail
WE2002698-2	---	3	26/03/08	Touchswitch assembly detail for conduit entry
WE2002698-3	---	1	26/03/08	Touchswitch assembly detail for cable gland entry
WE2002698-17	---	1	12/03/08	BAP and TS Potentiometer seal arrangement
WE2002698-4	---	2	26/08/04	Touchswitch design schematic
WE2002698-5TS1-AI	---	9	19/03/08	Touchswitch sensor label
WE2000640-6 BAP21 ATEX	---	10	19/03/08	BAP Csensor label
WE2002698-5ST2-CAI	---	9	27/03/08	Touchswitch sensor label