



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: **Baseefa03ATEX0673X**

4 Equipment or Protective System: **30mm RANGE OF SENSORS**

5 Manufacturer: **SYNATEL INSTRUMENTATION LTD**

6 Address: **Norton Canes, Cannock, Staffordshire, WS11 9TB**

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. **03(C)0903**

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

EN50281-1-1:1998 + amd. 1

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 :

Ex II 1D T100°C T_{amb} -15°C to 50°C

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

Baseefa (2001) Ltd. Customer Reference No. **1057**

Project File No. **03/0903**

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.

R S SINCLAIR

DIRECTOR

On behalf of

Baseefa (2001) Ltd.

Baseefa (2001) Ltd.

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Derbyshire, SK17 9BJ



13

Schedule

14

Certificate Number Baseefa03ATEX0673X

15 Description of Equipment or Protective System

The 30mm Range of Sensors are self contained sensors with a variety of different functions and circuit options contained within a 30mm diameter x 93mm long plastic moulded enclosure. The enclosure may be moulded in Clear or Opaque polymers. The enclosure is encapsulated using epoxy resin. The product type is identified in the series and code on the label. The outer surface of the tubular enclosure is threaded M30 x 1.5mm for a length of 70mm starting at the sensor end of the enclosure. Two plastic nuts are supplied to clamp the sensor in a mounting bracket. An integral 2 wire cable is provided for connection to a 24-240V dc or 24-240V ac supply. The sensors may act as a switch with a maximum switching capacity of 200mA in which case they must be connected in series with a suitable load with the same voltage rating as the supply being used, which typically would be a relay.

Alternatively the sensors may be a 10-30V DC, 1W, 4 wire version which contains an output with a switching capacity of 100mA.

Alternatively the sensors may be a 12-240V DC or 24-240V AC, 2VA, 5 wire version which contains an output with a switching relay capacity of 240V AC, 3A (non inductive).

The maximum power supplied to the sensor circuit is controlled by a 63mA fuse and two parallel zener diodes rated at 12V. The normal operating voltage is 6.2V for the 2 wire circuit, 10V for the 4 wire circuit and 8.5V for the 5 wire circuit. The input supply is protected by a thermal fuse rated at 98°C.

16 Report Number

03(C)0903

17 Special Conditions for Safe Use

1. These sensors are not suitable for mounting where they will be exposed to direct sunlight unless fitted with an auxiliary metal shield completely protecting the plastic enclosure from UV exposure.
2. When the sensor is moulded in opaque polycarbonate or opaque polyamide, it is only suitable for use in areas with a low risk of impact. When the sensor is moulded in clear polycarbonate it is suitable for use in areas with normal risk of impact.

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	Issue	Date	Description
A3-300414A	0	22/03/02	Enclosure detail
A3-200370A	0	04/12/03	Circuit diagram
A4-15019A	0	04/12/03	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: **Baseefa03ATEX0673X/1**

4 Equipment or Protective System: **30mm RANGE OF SENSORS**

5 Manufacturer: **SYNATEL INSTRUMENTATION LTD**

6 Address: **Norton Canes, Cannock, Staffordshire, WS11 9TB**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa03ATEX0673X 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. **1057**

Project File No. **04/0520**

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Baseefa (2001) Ltd.

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

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



13

Schedule

14

Certificate Number Baseefa03ATEX0673X/1

15

Description of the variation to the Equipment or Protective System

Variation 1.1

To allow the use of an optional metallic shield inside the sensor, complete with shield wire.

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.

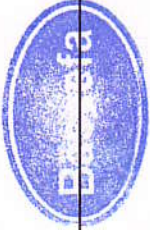
19

Drawings and Documents

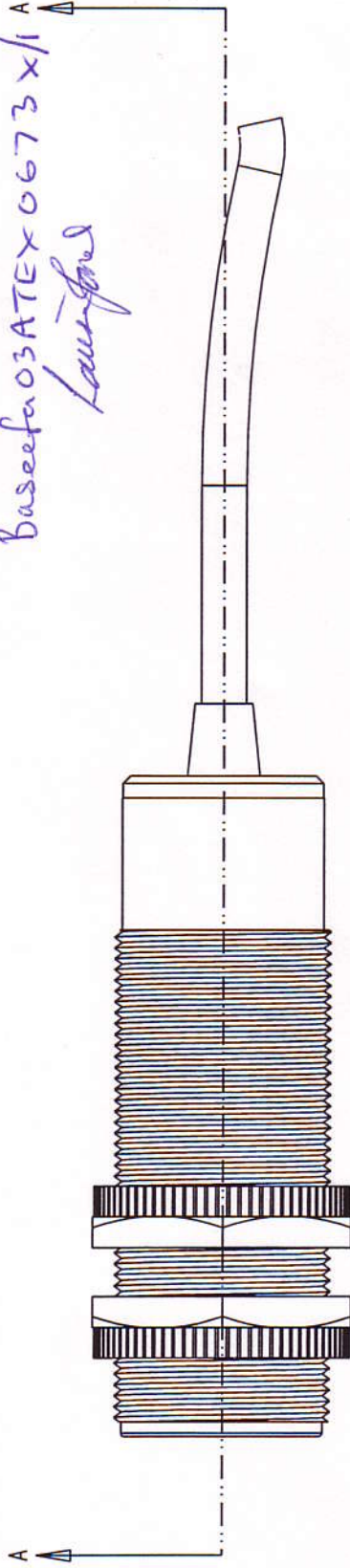
Number	Issue	Date	Description
A4-300498A	0	29/07/04	C1TZ(A) & BS2V10A Metallic shield layout

THIS DRAWING REMAINS THE PROPERTY OF SYNATEL INSTRUMENTATION LTD AND MUST NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION

Baseefa
Certification
Schedule
Drawing

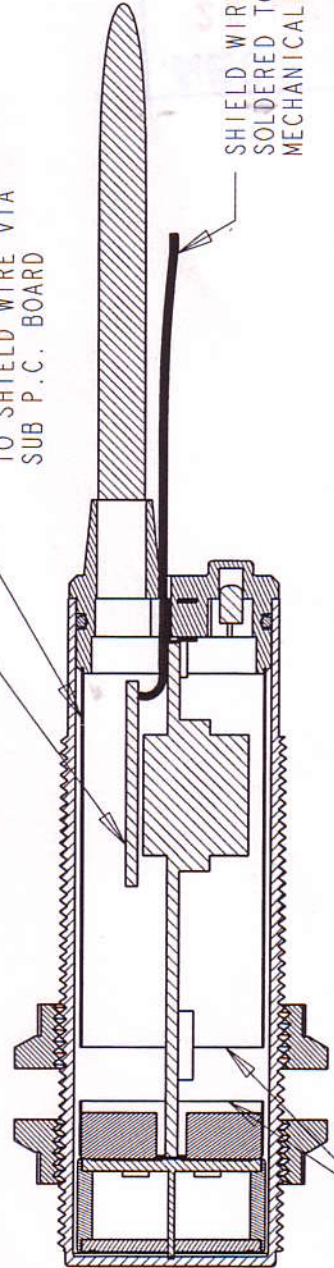


Baseefa 03ATEX 0673 x/1
Lauriford



SUB P.C. BOARD

METALLIC SHIELD, CONNECTED TO SHIELD WIRE VIA SUB P.C. BOARD



SHIELD WIRE SOLDERED TO SUB PCB AND MECHANICALLY HELD BY ENCAPSULANT

GAP BETWEEN SCREENS
7mm MINIMUM

ALL OTHER DETAILS AS A3-300414 (LATEST ISSUE)

SECTION A-A

FILE	SUFFIX	Mod	ISSUE							THIRD ANGLE	DESCRIPTION
			1	2	3	4	5	6	7		
											C-ITZIA), BS:2V10A APPROVAL
											APPROVED
											DATE 26-07-04
											DRAWN BY R.A.S.
											DES. AUTH. R.A.
											SCALE: 1000
											DIMENSIONS IN MILLIMETRES