

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa14ATEX0115X – Issue 1**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **18mm Range of Sensors**

5 Manufacturer by: **Synatel Instrumentation Limited**

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

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa14ATEX0115X to apply to product 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 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR21.0069/00**

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

EN IEC 60079-0: 2018 EN 60079-18: 2015: +A1: 2017

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 product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

 **2G Ex mb IIC T5 Gb**  **2D Ex mb IIIC T100°C Db**  **I M2 Ex mb I Mb Tamb -15°C to +50°C**

SGS Fimko Oy Customer Reference No. **1057**

Project File No. **21/0061**

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Tuomas Hänninen
SGS Fimko Oy

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Schedule

14

Certificate Number Baseefa14ATEX0115X – Issue 1

15 Description of Product

The 18mm Range of Sensors consists of:

IXXXXMXXXAI Series of 18mm inductive proximity switches

SXXXMXXXAI Series of 18mm speed switches

MXXXMXXXAI Series of 18mm MAGNETIC switches

Alternative type designation for 4B Components Ltd and 4B Braime Elevator Components Ltd:

P100XXXAI Series of 18mm inductive proximity switches

M100XXXAI Series of 18mm speed switches

The 18mm Range of Sensors are self-contained sensors with a variety of different functions and circuit options contained within a 18mm diameter x 80mm long black plastic moulded enclosure. 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 M18 x 1.0mm for a length of 60mm starting at the sensor end of the enclosure. Two plastic nuts are supplied to clamp the sensor in a suitable mounting bracket, or the sensor can be clamped direct to a surface by suitable clips.

An integral 2 wire cable is provided for connection to a 12-240V 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 4 wire version for connection to a 10-30V DC which contains an output with a switching capacity of 100mA.

The maximum power supplied to the sensor circuit is controlled by a fuse up to 63mA and two parallel zener diodes rated at 7.2V. The normal operating voltage is 6.2V. The input supply is protected by a thermal fuse rated at 98°C.

The 18mm Sensor Unit has an Ingress Protection Rating equivalent to at least IP66.

Variation 1.1

The Sensors may be fitted with alternative certification labels with one of the following names included:

4B Components Ltd

4B Braime Elevator Components Ltd

16 Report Number

GB/BAS/ExTR21.0069/00

17 Specific Conditions of Use

1. The supply circuit shall be protected by a suitably rated fuse capable of interrupting a short circuit current of 1500 Amps.
2. Warning: Potential static ignition risk, clean only with a damp cloth.
3. The integral cable shall be terminated in a suitably certified enclosure or in the safe area.
4. For Group I M2 applications the sensor shall only be used in areas with a low risk of impact.
5. For Group I M2 applications the sensor shall be protected from exposure to chemicals such as oils, greases and hydraulic liquids.'

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report GB/BAS/ExTR12.0279/00:

Clause	Subject
1.2.7	LVD type requirements
1.4.1	External effects
1.4.2	Aggressive substances

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
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No new drawings

Current drawings which remain unaffected by this issue:

Number	Issue	Date	Description
A3-200812A	0	30/04/14	18mm ATEX/IECEX sensor protection details
A4-301223A	0	27/04/12	18mm cable end
A4-301360A	0	30/04/14	18mm enclosure ATEX/IECEX
A4-301361A	0	30/04/14	18mm enclosure wiring and potting detail
A3-301367A	0	26/06/14	Mk2 18mm Body
A4-301378A	0	28/07/14	18mm end cap
A4-15806A	0	10/04/15	18mm generic label (Synatel)
A4-15807A	0	10/04/15	18mm generic label (Braime Elevator Comps)
A4-15809A	0	10/04/15	18mm generic label (4B Components)

All drawings are common to, and held on, IECEX BAS14.0061X

20 Certificate History

Certificate No.	Date	Comments
Baseefa14ATEX0115X	23 April 2015	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0: 2012/A11: 2013 and EN 60079-18: 2009 is documented in Test Report No. GB/BAS/ExTR12.0279/00.
Baseefa14ATEX0115X/1	20 May 2021	This issue of the certificate incorporates previously issued primary certificate into one certificate and confirms the current design meets the requirements of EN IEC 60079-0: 2018 and EN 60079-18: 2015: +A1: 2017, as documented in GB/BAS/ExTR21.0069/00. The equipment marking remains unchanged.

For drawings applicable to each issue, see original of that issue.

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: **Baseefa14ATEX0115X**

4 Equipment or Protective System: **18mm Range of Sensors**

5 Manufacturer: **Synatel Instrumentation Limited**

6 Address: **Walsall Road, 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, 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/TR12.0279/00**

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

EN 60079-0: 2012/A11: 2013 EN 60079-18: 2009

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 2G Ex mb IIC T5 Gb

⊕ II 2D Ex mb IIC T100°C Db Tamb -15°C to +50°C

⊕ IM2 Ex mb I Mb

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

Baseefa Customer Reference No. **1057**

Project File No. **11/0739**

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R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

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Schedule

14

Certificate Number Baseefa14ATEX0115X

15 Description of Equipment or Protective System

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

The maximum power supplied to the sensor circuit is controlled by a fuse up to 63mA and two parallel zener diodes rated at 7.2V. The normal operating voltage is 6.2V. The input supply is protected by a thermal fuse rated at 98°C.

The 18mm Sensor Unit has an Ingress Protection Rating equivalent to at least IP66.

Variation 1.1

The Sensors may be fitted with alternative certification labels with one of the following names included:

4B Components Ltd

4B Braime Elevator Components Ltd

16 Report Number

GB/BAS/TR12.0278/00

17 Specific Conditions of Use

1. The supply circuit shall be protected by a suitably rated fuse capable of interrupting a short circuit current of 1500 Amps.
2. Warning: Potential static ignition risk, clean only with a damp cloth.
3. The integral cable shall be terminated in a suitably certified enclosure or in the safe area.
4. For Group I M2 applications the sensor shall only be used in areas with a low risk of impact.
5. For Group I M2 applications the sensor shall be protected from exposure to chemicals such as oils, greases and hydraulic liquids.'

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
A3-200812A	0	30/04/14	18mm ATEX/IECEX sensor protection details
A4-301223A	0	27/04/12	18mm cable end
A4-301360A	0	30/04/14	18mm enclosure ATEX/IECEX
A4-301361A	0	30/04/14	18mm enclosure wiring and potting detail
A3-301367A	0	26/06/14	Mk2 18mm Body
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A4-15806A	0	10/04/15	18mm generic label (Synatel)
A4-15807A	0	10/04/15	18mm generic label (Braime Elevator Comps)
A4-15809A	0	10/04/15	18mm generic label (4B Components)

All drawings are held on IECEx BAS14.0061X and common to Baseefa14ATEX0115X