



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: **Baseefa10ATEX0135X**
- 4 Equipment or Protective System: **MBA2A Mechanical Belt Switch, MBA2RA Mechanical Belt Alignment  
c/w Belt Rip and MBR2A Belt Rip Switch**
- 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/ExTR10.0110/00 & 10(C)0054**

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

**EN 60079-0: 2009 EN 60079-31: 2009 EN 13463-1: 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 2D Ex tb IIIC T125°C Db IP66 Tamb -20°C to +50°C**

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

Baseefa Customer Reference No. **1057**

Project File No. **10/0054**

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**

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Baseefa is a trading name of Baseefa Ltd

Registered in England No. 4305578. Registered address as above.

*PP*   
**R S SINCLAIR** *M POWNY*  
DIRECTOR  
On behalf of  
Baseefa



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## Schedule

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Certificate Number Baseefa10ATEX0135X

### 15 Description of Equipment or Protective System

There are 3 Mechanical Belt Switch Units:

- ~ MBA2A Mechanical Belt Switch
- ~ MBA2RA Mechanical Belt Alignment c/w Belt Rip
- ~ MBR2A Belt Rip Switch

The Mechanical Belt Switch Units have an Ingress Protection Rating IP66.

Each switch unit comprises of a 141x111x88mm black glass fibre reinforced nylon enclosure complete with switch circuits. An external switch arm/roller is used to detect belt misalignment. A mild steel plug can be fitted to which a magnet can be attached with a captive cable affixed to the opposite side of a conveyor such that a tear in a conveyor belt will trap the wire and pull off the magnet. An internal reed switch then operates.

The enclosure comprises of a lid and body and the lid is secured to the body by 4 screws and sealed by an o-ring gasket seated in a groove in the lid.

#### MBA2A and MBA2RA:

These units incorporate an external mechanical arm that comprises of a CAM housing, split collar, M6x120mm long screw and fixings complete with hollow section  $\varnothing 32$ mm (min) nylon or  $\varnothing 20$ mm (min) steel roller. The CAM housing is secured to the enclosure body by 2 off M3 screws and the CAM housing is sealed to the enclosure body with an o-ring seal and the CAM shaft is sealed to the CAM body by a further o-ring.

The switch circuits inside the enclosure are 2 off 240V 6A NO/NC switches mounted on PCB's that are actuated by a pushrod and spring assembly. The pushrod is secured to the enclosure via the external CAM housing and an external stopping plug, complete with o-ring and an internal guide retainer assembly.

The MBA2RA unit also includes an M25 mild steel stopping plug attached to the inside of which is a reed switch to detect presence or absence of a magnet.

#### MBR2A:

This unit only includes an M25 mild steel stopping plug/read switch as above.

### 16 Report Number

GB/BAS/ExTR10.0110/00 & 10(C)0054

### 17 Special Conditions for Safe Use

1. The equipment shall be suitably earth bonded via the PCB mounted earth terminal inside the equipment enclosure.
2. Do not allow the nylon roller wall thickness to fall below 8mm. The wall thickness shall be checked after every operation of the switch.
3. Warning: The equipment is a potential static hazard, clean only with a damp cloth.
4. Do not allow dust layers to build up on the equipment.





**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
A4-15574A	--	0	09/02/11	MBA series approval label
A4-15620A	--	0	09/02/11	Bulldog top label
A4-200660A	--	0	07/04/08	MBA2RA CCT assembly switch pcb
A4-200662A	--	0	07/04/08	MBA2/MBA2A CCT assembly switch pcb
A4-200663A	--	0	07/04/08	MBR2/MBR2A CCT assembly switch pcb
A3-301129A	--	0	09/02/11	MBA and MBR series variations approval
A4-15574A	--	0	09/02/11	MBA series approval label
A4-15620A	--	0	09/02/11	Bulldog top label