

UK-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

- UK-Type Examination Certificate Number: **BAS21UKEX0760X**
- Product: **TOPBOX range of switches**
- Manufacturer: **Longvale Limited**
- Address: **Lancaster Park, Needwood, Burton-upon-Trent, Staffs, DE13 9PD**
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.
- The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR21.0181/00**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-31:2014
- except in respect of those requirements listed at item 18 of the Schedule.
- 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.
- This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following :
- Ex II 2 GD Ex eb mb IIC T6 Gb Ex tb IIIC T85°C Db IP66 Tamb -25°C to +70°C**
Ex eb mb IIC T5 Gb Ex tb IIIC T85°C Db IP66 Tamb -25°C to +75°C

SGS Baseefa Customer Reference No. **5323**

Project File No. **21/0380**

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SGS Baseefa Limited

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

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

e-mail baseefa@sgs.com web site www.sgs.co.uk/sgsbaseefa

Registered in England No. 4305578.

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



R S Sinclair

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

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Schedule

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Certificate Number BAS21UKEX0760X

15 Description of Product

There are 2 switch types in the TOPBOX range:

TB- 103W – with 2 x Single Pole Normally Open contacts

TB- 203W – with 2 x Single Pole Change Over contacts

The TOPBOX consists of a powder coated aluminium enclosure 85 x 70 x 55mm high that houses the switch circuits. The enclosure has a lid and body and the lid is secured to the body by 4 off M4 fixing screws. A retained neoprene rubber o-ring in the lid groove provides an Ingress Protection rating of IP66. The enclosure is mounted to the equipment by 2 x M5 screws located under the lid.

The enclosure houses self contained reed switches and PCB's with a variety of different functions contained within a small plastic housing. The reed switches and PCB's are encapsulated inside the plastic housing using epoxy resin and the housing is located in a recess in the enclosure body. The plastic housing is secured in to the enclosure by a 6 way terminal block mounted above it and the terminal block is secured by 2 x screws in to the base of the body. Either 3 wires from the reed switch circuit for the TB-103W or 6 wires from the reed switch circuits for the TB-203W are terminated in to the 6 way terminal block

The switches have a maximum switching capacity for the TB-103W version of 3A (250V AC/DC, 60VA), and for the TB-203W version 1A (250V AC/DC, 20VA), using two reed switches.

The enclosure can have up to 2 x M20 (or equivalent and smaller) entry holes in the straight long face and 1 x M20 (equivalent and smaller) entry in either of the short side faces.

When required to suit customer applications, the TB-103W version TOPBOX may also incorporate up to 3 wire connections for auxiliary circuits in the 3 spare connections in the 6 way terminal block.

16 Report Number

SGS Baseefa certification report GB/BAS/ExTR21.0181/00.

17 Specific Conditions of Use

1. The supply circuit shall be protected by a suitably rated fuse capable of interrupting a fault current of 1500 Amps.
2. When used under dust layers the maximum depth shall be no greater than 50mm.
3. Unused cable entries must be fitted with a suitable equipment certified stopping plug.
4. When auxiliary circuits are used in conjunction with the 3TB-103W version TOPBOX switch, the total current in the combined circuits shall not exceed 3 Amps.
5. The Weidmuller BK6 or MK3 terminal blocks shall be wired in accordance with the Special Conditions for Safe Use specified on certificate TUV18ATEX8209U. A copy of these instructions shall be supplied by Longvale Limited.
6. When auxiliary circuits are used in conjunction with the TB-103W – 4 wire version of the TOPBOX switch, the total current in the combined circuits shall not exceed 3 Amps.
7. Leads connected into the MK3 and BK6 terminal blocks shall be installed for the appropriate voltage and this insulation shall extend to within 1mm of the metal of the terminal throat.
8. All terminal screws in the MK3 and BK6 terminal blocks, used and unused, shall be tightened down to between 0.4Nm and 0.45Nm.
9. A suitable seal or gasket shall be fitted between the enclosure and the suitably certified cable gland or stopping plug.
10. To minimise the risk of electrostatic charging, clean only with a damp cloth.

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:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
LAB 002		02	8.10.21	Label Layout For Topbox

For all other drawings refer to Baseefa07ATEX0036X Issue 4 and IECEx BAS 07.0009X Issue 4.

This drawing is common to Baseefa07ATEX0036X and IECEx BAS 07.0009X Issue 4 and is held with the latter.