IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx BAS 07.0009X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 4	Issue 3 (2014-01-10) Issue 2 (2008-12-03) Issue 1 (2008-03-27) Issue 0 (2007-05-10)
Date of Issue:	2021-12-06		

Applicant: **Longvale Limited**
Lancaster Park
Needwood, Burton-upon-Trent
Staffordshire, DE13 9PD
United Kingdom

Equipment: **TOPBOX Range of Switches**

Optional accessory:

Type of Protection: **Ex emb II**

Marking: **70°C Ambients for T6 applications:-**
Ex emb II T6 Gb Ex tb III C T85°C Db IP66 Tamb -25°C to +70°C

75°C Ambients for T5 applications:-
Ex emb II T5 Gb Ex tb III C T85°C Db IP66 Tamb -25°C to +75°C

Approved for issue on behalf of the IECEx Certification Body: **Mr R S Sinclair**

Position: **Technical Manager**

Signature: (for printed version)

Date: 6/12/21

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 07.0009X** Page 2 of 4

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Manufacturer: **Longvale Limited**
Lancaster Park
Needwood
Burton-upon-Trent
Staffordshire
DE13 9PD
United Kingdom

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-18:2009 Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
Edition:3

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR07.0013/00 GB/BAS/ExTR08.0075/00 GB/BAS/ExTR08.0221/00
GB/BAS/ExTR13.0300/00 GB/BAS/ExTR21.0181/00

Quality Assessment Report:

GB/SIR/QAR07.0013/12

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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.

See annex for full description

SPECIFIC CONDITIONS OF USE: YES as shown below:
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 cables 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. Leads connected to the MK3 and BK3 terminal blocks shall be insulated for the appropriate voltage and the insulation shall extend to within 1mm of the metal of the terminal throat

6. All terminal screws in the MK3 and BK3 terminal blocks, used or unused, shall be tightened down to between 0.4 Nm and 0.45 Nm.

7. 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.

8. A suitable seal or gasket shall be fitted between the enclosure and the suitably certified cable gland or stopping plug.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 4.1

To assess the equipment listed above against IEC 60079-0:2017 Edition 7.0, IEC 60079-7:2015+A1:2018 Edition 5.1 and IEC 60079-18:2014+A1:2017 Edition 4.1.

Variation 4.2

To allow the use of BK6 and MK3 terminal blocks afforded IECEx TUR 18.0019U and remove the BK6 terminals afforded IECEx SIR 05.0035U and MK3 terminals afforded IECEx SIR 05.0036U.

ExTR: **GB/BAS/ExTR21.0181/00**	File Reference: **21/0380**

Annex:

IECEx BAS 07.0009x annex.pdf

Baseefa (2001) Ltd.
Rockhead Business Park
Staden lane, Buxton
Derbyshire
SK17 9RZ
United Kingdom

Full Description:

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.