IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx BAS 13.0126X

Issue No: 1

Certificate history:
Issue No. 1 (2019-07-30)
Issue No. 0 (2013-12-17)

Status: **Current**

Date of Issue: **2019-07-30**

Applicant: **T.E.L. Engineering Limited (Trading as Trolex Engineering)**
Unit 2 Levens Road,
Newby Road Industrial Estate,
Hazel Grove,
Stockport,
Cheshire,
SK7 5DL
United Kingdom

Equipment: **TX4798 Slip Ring Unit**

Optional accessory:

Type of Protection: **Intrinsic Safety and Increased Safety**

Marking:

Ex ia IIC T4 (-20°C ≤ Ta ≤ +50° C) – without anti-condensation heater
Ex e ia IIC T4 (-20°C ≤ Ta ≤ +50°C) – with anti-condensation heater

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

Position: General Manager

Signature:
(for printed version)

Date: 30-7-19

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 the Official IECEx Website.

Certificate issued by:

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

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Manufacturer: **T.E.L. Engineering Limited (Trading as Trolex Engineering)**
Unit 2 Levens Road,
Newby Road Industrial Estate,
Hazel Grove,
Stockport,
Cheshire,
SK7 5DL
United Kingdom

Additional Manufacturing location(s):

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 apparatus 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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 Report:

GB/BAS/ExTR13.0279/00

Quality Assessment Report:

GB/BAS/QAR08.0003/07

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The TX4798 Slip Ring Unit is designed to transfer Intrinsically Safe signals across a rotating interface, which allows for continuous rotary motion.

The equipment comprises a hollow shaft fixed to a mounting pedestal with slip rings – isolated from each other and the enclosure - mounted upon the periphery of the shaft. Precision ball bearings are used to allow the box-shaped or cylindrical-shaped enclosure to be fitted to the outer bearing races' permitting continuous rotation in both directions. The electrical signals are transferred by spring loaded brush contacts that slide along the periphery of the slip ring surface.

A multi-core cable is fitted through an Ex gland mounted to the shaft bearing boss and the cores are terminated by solder connection to the inner diameter of the slip rings. A second multi-core cable is fitted to the enclosure through an Ex gland and the cores are terminated by solder connection to the brush contact assemblies.

The equipment may optionally be fitted with an anti-condensation Heater and/or internal PT100 temperature sensor.

See Annex for Type Numbers: TX4798-aa-bb-cc-dd

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Unused entry holes shall be fitted with stopping plugs as specified in the empty enclosure certificate IECEx BAS.08.0064U. The operating temperature range of the enclosure is limited to that of the stopping plug fitted.

2. All terminal screws, used and unused, shall be tightened down by the end user.

3. Insulation of conductors must extend to within 1mm of the metal of the terminal throat unless specified otherwise on the terminal certificate.

4. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

This document permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design

File Reference: **19/0450**

Annex:

IECEx BAS 13.0126X Anex.pdf

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

ANNEX to IECEx BAS 13.0126X | Issue No. 0 | Date: 17 December 2013

Type Numbers: TX4798-aa-bb-cc-dd

Where. aa = omitted for the square, box version
aa = RD for the round cylindrical version
bb = the number of slip-rings (25 maximum)
cc = omitted when no heater is fitted
cc = HTR when the anti-condensation heater is fitted
dd = Omitted when the temperature sensor is not fitted
dd = TS when the temperature sensor is fitted

Type TX4798 (square box version)

Each slip ring circuit	Anti-condensation heater (if fitted)
Ui = 375Vpeak	Umax = 254Vrms
Pi = 1.2W	

Type TX4798-RD (round cylindrical version)

Each slip ring circuit	Anti-condensation heater (if fitted)
Ui = 60Vpeak	Umax = 254Vrms
Pi = 1.2W	