



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 13.0055X

Issue No: 2

Certificate history:

Status: **Current**

Issue No. 2 (2019-07-30)

Issue No. 1 (2014-03-11)

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

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Issue No. 0 (2013-09-16)

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: **Type TX 4740 Slip Ring Collector Unit**

Optional accessory:

Type of Protection: **Ex 'd', Ex 'td', Ex 'op is', Ex 'e' (Certified gland only)**

Marking:

Ex d IIB T* Gb Tamb -40°C to +°C (* and ** see schedule)
Ex tb III C T*°C Db IP66**

With the exception of slip ring units utilising the Fibre Optic Rotating Joint (FORJ), which are marked:

Ex d op is IIB T* Gb Tamb -40°C to +°C (* and ** see schedule)
Ex tb III C T*°C Db IP66**

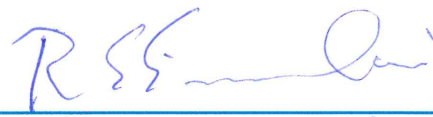
Approved for issue on behalf of the IECEx
Certification Body:

R. S. Sinclair

Position:

Technical Manager

Signature:
(for printed version)


30-7-19

Date:

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](http://www.iecex.com).

Certificate issued by:

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

SGS



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SUBJECT TO AMENDMENTS**

T.E.L. ENGINEERING LIMITED



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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 60079-1 : 2007-04 Edition:6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-11 : 2011 Edition:6.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" |
| IEC 60079-28 : 2006-08 Edition:1 | Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation |
| IEC 60079-31 : 2008 Edition:1 | Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't' |
| 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/ExTR13.0128/00](#) [GB/BAS/ExTR14.0067/00](#)

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 TX 4740 Slip Ring Collector Unit comprises a stainless steel housing incorporating a bearing and a flange at one end of an outer tube, the tube having various lengths up to 740mm, and an aluminium or steel housing at the other end. The outer tube encloses slip rings and associated brush gear. Cable entries are provided in the end housings which may be provided with permanently attached cables fitted by the manufacturer. The slip rings are individually rated up to 4500V, 48A and may be used for power, signal and intrinsically safe circuits, with a maximum total throughput of 400A. When used with intrinsically safe circuits, the slip rings are suffixed with an 'i' and the maximum voltage for the intrinsically safe circuits is reduced to 60V.

Cable entry holes are provided as specified on the certified drawings for the accommodation of suitable certified flameproof cable entry devices, with or without the interposition of a suitable certified flameproof thread adaptor. Unused entries are to be fitted with suitable certified flameproof stopping plugs.

| Equipment Marking Variations | | |
|------------------------------|----------------|---|
| * | ** | Unit Type |
| | | |
| T5 / T100°C | -40°C to +40°C | TX4740, TX4740i and TX4740FORJ |
| T5 / T100°C | -40°C to +60°C | TX4740 (Max current reduced to 285A) with optional FORJ |
| T5 / T100°C | -40°C to +45°C | TX4740 and TX4740FORJ |
| T4 / T135°C | -40°C to +50°C | TX4740 (Max current reduced to 285A) with optional FORJ |

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Flamepath dimensions differ from the standard widths according to IEC 60079-1. For further information on the dimensions of the flameproof joints the OEM must be contacted.
2. The integral cables, when fitted, must be protected against impact and be terminated in a suitable junction facility.
3. For units carrying intrinsically safe circuits:
 - 3.1. The voltage of each intrinsically safe circuit and between separate intrinsically safe circuits shall not exceed 60V.
 - 3.2. The sum of the maximum peak voltages of intrinsically safe and non-intrinsically safe circuits shall not exceed 1575V.
 - 3.3. Each intrinsically safe circuit shall be separately screened.
4. For units incorporating the fibre optic rotary joint:
 - 4.1. Optical power through the Type TX4740FO is to be limited to a radiated power of less than 35mW and a peak power density of less than 5mW/mm² as defined by IEC 60079-28.
5. When fitted with the Controlflex SY cable of 0.75sqmm to 18sqmm the equipment's lower ambient temperature is -15°C.
6. When fitted with the Raychem Zerohal cable the equipment's lower ambient temperature is -30°C.

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

Variation 2.1

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

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