

EC - TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

UNCONTROLLED DOCUMENT
THIS DOCUMENT IS NOT
SUBJECT TO AMENDMENTS
T.E.L. ENGINEERING LIMITED

3 EC - Type Examination Certificate Number: **Baseefa14ATEX0049X**

4 Equipment or Protective System: **Type TX 4740 Slip Ring Collector Unit**

5 Manufacturer: **T.E.L. Engineering Limited (Trading as Trolex Engineering)**

6 Address: **Newby Road, Hazel Grove, Stockport, Cheshire, SK7 5DA**

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. **13(C)0981**

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

EN 60079-0:2012	EN 60079-1:2007	EN 60079-7:2007
EN 60079-11:2012	EN 60079-28:2007	EN 60079-31:2009

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 :

Ex II 2 GD Ex d IIB T* Gb (T_{amb} -40°C to +**°C) (* and ** see schedule)

Ex tb IIIC T*°C Db IP66

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

Ex II 2 GD Ex d op is IIB T* Gb (T_{amb} -40°C to +**°C) (* and ** see schedule)

Ex tb IIIC T*°C Db IP66

Baseefa Customer Reference No. **1428**

Project File No. **13/0981**

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P R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

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Schedule

14

Certificate Number Baseefa14ATEX0049X

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15 Description of Equipment or Protective System

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

16 Report Number

SGS Baseefa certification report 13(C)0981.

17 Specific Conditions of Use

1. Flamepath dimensions differ from the standard widths according to EN 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 EN 60079-28.
5. When fitted with the Controflex 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.

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
1/4740/566	1 of 1	A	04/03/13	TX4740 Nameplates

This drawing is common to both IECEx BAS 13.0055X and Baseefa14ATEX0049X, and is held with the former.