



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 TSA 05.0046X**

Issue No.: **1**

Status: **Current**

Date of Issue: **2006-03-14**

Page 1 of 5

Applicant: **Trox Limited
10 Newby Road
Hazel Grove, Stockport
Cheshire SK7 5DY
United Kingdom**

Electrical Apparatus: **P5546 Interface Unit**
Optional accessory:

Type of Protection: **Ex ia I**

Marking: **P5546.xx Interface Unit
(where xx is 12 for the Setra version and 18 for
the Rosemount 3051S version)
Ex ia I
IECEx TSA 05.0046X
-20 °C ≤ Ta ≤ +70 °C
Ui = 16.5 V
Serial Number
Year of Manufacture
Manufacturer Name and Postcode**

Approved for issue on behalf of the IECEx
Certification Body:

Ujen Singh

Position:

Quality and Certification Manager

Signature:
(for printed version)

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.

Certificate issued by:

TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia





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Page 2 of 5

Manufacturer: **Trox Limited**
10 Newby Road
Hazel Grove, Stockport
Cheshire SK7 5DY
United Kingdom

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 manufacture'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 electrical 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 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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

IECEx ATR:

UK/BAS/04/0842

File Reference:

TestSafe 2005/044413



IECEx Certificate of Conformity

Certificate No.: IECEx TSA 05.0046X

Date of Issue: 2006-03-14

Issue No.: 1

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The P5546 Interface Unit is designed to provide an interface between a certified intrinsically safe power supply and a certified intrinsically safe differential pressure sensor located in the hazardous area.

Two versions of the Interface Unit are covered by this certificate:

(1) P5546.12 - provides an interface for the Setra TX6144 Differential Pressure Sensor covered by SIRA Certificate Sira99ATEX2125X

(2) P5546.18 - provides an interface for the Rosemount 3051S Differential Pressure Sensor covered by Baseefa Certificate Baseefa05ATEX0193U

The Interface Unit comprise a number of components mounted on a single printed circuit board encapsulated within an ABS plastic enclosure. Connections to external circuits are made via integral flying leads. An LED provides power status indication.

CONDITIONS OF CERTIFICATION: YES as shown below:

Special Condition of Safe Use:

The flying leads must be terminated so that the terminations are afforded a degree of protection of not less than IP54.

The following parameters shall be taken into account during installation:

Model P5546.12

Input Parameters

Terminals T1/T3 w.r.t. T2

$U_i = 16.5 \text{ V}$

$C_i = 0 \mu\text{F}$

$L_i = 0 \text{ mH}$

Output Parameters

Terminals T4 and T6 in parallel w.r.t. T5/T7

$U_o = 7.14 \text{ V}$

$C_i = 24.24 \mu\text{F}$

$C_o < 1000 \mu\text{F}$

$I_o = 0.1 \text{ A}$

$L_i = 0 \text{ mH}$

$L_o < 20 \text{ mH}$

$P_o = 0.334 \text{ W}$

Model P5546.18

Input Parameters

Terminals T1 w.r.t. T2

$U_i = 16.5 \text{ V}$

$C_i = 0 \mu\text{F}$

$L_i = 0 \text{ mH}$

Terminals T3 w.r.t. T2

$U_i = 16.5 \text{ V}$

$C_i = 0 \mu\text{F}$

$I_i = 0.3 \text{ A}$

$L_i = 0 \text{ mH}$

$P_i = 1 \text{ W}$

Output Parameters

Terminals T4 w.r.t. T5

$U_o = 16.5 \text{ V}$

$C_o < 6 \mu\text{F}$

$I_o = 0.241 \text{ A}$

$L_o < 4 \text{ mH}$

$P_o = 0.995 \text{ W}$



IECEx Certificate of Conformity

Certificate No.: **IECEx TSA 05.0046X**

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Page **4** of **5**

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

Refer to the attached annexe "IECEx TSA 05_0046X Details of Certificate Changes"



IECEx Certificate of Conformity

Certificate No.: **IECEx TSA 05.0046X**

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Issue No.: **1**

Page **5** of **5**

Additional information:

Refer to the attached annexe "IECEx TSA 05_0046X List of Documents"