

1 **EC TYPE EXAMINATION CERTIFICATE**

2 Equipment or protective system intended for use in potentially explosive atmospheres –
Directive 94/9/EC – Annex III

3 EC Type Examination **TRAC09ATEX11232X**
Certificate No.:

4 Equipment: **Loop Powered Temperature Transmitters, TTC200X and TTR200X**

5 Manufacturer: **Status Instruments Ltd.,**

6 Address: **Green Lane Business Park, Green Lane, Tewkesbury, Gloucestershire,
GL20 8DE, United Kingdom**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 TRaC EMC & Safety Ltd, Notified Body number 0891 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report **16-0099-005537**.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in section 18 of the schedule to this certificate, has been assured by compliance with:

EN 60079-0:2006

EN 60079-11:2007

EN 60079-26:2007

EN 61241-0:2006

EN 61241-11:2006

10 If the sign "X" is placed after the certificate number then this indicates that the equipment or protective system is subject to special conditions of 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 in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of this equipment or protective system shall include the following:

 **II 1 G Ex ia IIC T4 Ga**
II 1 D Ex iaD 20 T135°C Da
T_{amb} = -20°C to +85°C

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the TRaC Ex Certification Scheme.

S.P. Winsor

S P Winsor, Certification Liaison Officer

Issue date: 2011-01-31 (issue 2)

Copy No.: 1e

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13 **SCHEDULE TO EC TYPE EXAMINATION CERTIFICATE**

14 **TRAC09ATEX11232X**

15 **General description of equipment or protective system included within the scope of this certificate**

The TTR200X and TTC200X temperature transmitters are designed to accept inputs from a range of temperature sensors and convert these to standard industrial 4-20 mA output signal. The TTR200X accepts inputs from resistance devices (RTD or slide wire type) and the TTC200X accepts inputs from thermocouple devices. These devices must conform to the requirements for simple apparatus (refer to Special Conditions for Safe Use).

The equipment comprises a single PCB within a small plastic enclosure with external screw type terminal connections for signal and sensor connections. The enclosure is fully encapsulated after assembly.

The equipment must be housed in a suitable enclosure. Refer to Special Conditions for Safe Use.

The units are powered from the 4-20mA current loop and must only be used with a suitably certified safety barrier. See entity parameters below.

Parameter	TTR200X		TTC200X	
	+/-	1 / 2 / 3	+/-	1 / 2 / 3
Ui	30 V	1.5 V	30 V	1.5 V
Ii	100 mA	-	100 mA	-
Pi	750 mW	-	750 mW	-
Ci	0	1.5 µF	0	10 nF
Li	0	0	0	0
Uo	-	5 V	-	5 V
Io	-	2 mA	-	55 mA
Po	-	65 mW	-	0.62 mW.

A list of controlled Manufacturer's Documents is given in Appendix A to this schedule.

16 **Test report No.:** **16-0099-005537.**

17 **Special conditions for safe use**

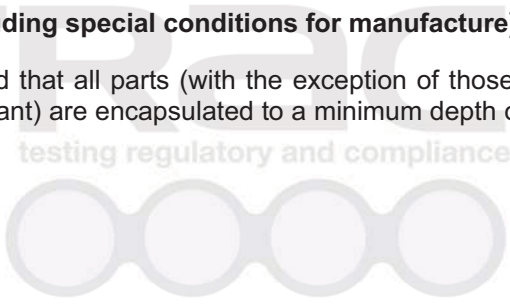
1. For gas applications, the TTC200X and TTR200X temperature transmitters must be mounted in a metallic enclosure rated for IP54 and located in an area where the enclosure will not be subject to impact or friction.
2. For dust applications, the TTC200X and TTR200X temperature transmitters must be mounted in a suitably ATEX or IECEx certified enclosure appropriate for the zone of end use.
3. The equipment shall only be configured by means of the USB connection outside the hazardous area.
4. If the equipment is mounted in an enclosure with separate IS circuits, appropriate segregation shall be provided in accordance with IEC 60079-11 Clause 6.2.1.
5. TTC200X - Only for connection to suitable thermocouples. These shall conform to the requirements for simple apparatus as defined in IEC 60079-0 clause 5.7 and shall pass a dielectric strength test in accordance with IEC 60079-11 Clause 6.3.12.
6. TTR200X - Only suitable for connection to RTD temperature sensors or slide wire resistance devices. They shall conform to the requirements for simple apparatus as defined in EN 60079-0 clause 5.7 and shall pass a dielectric strength test in accordance with 60079-11 Clause 6.3.12.
7. The ambient temperature range of the enclosure will limit the permitted ambient range of the overall equipment. Refer to enclosure certification.

18 **Essential health and safety requirements**

Covered by application of the standards listed in section 9 of this certificate and the assessment conducted in the test report listed in section 16 of this certificate.

19 **Additional information (including special conditions for manufacture)**

1. It shall be ensured that all parts (with the exception of those parts which intentionally protrude from the encapsulant) are encapsulated to a minimum depth of 1mm and that the encapsulant is free of voids.



Photographs

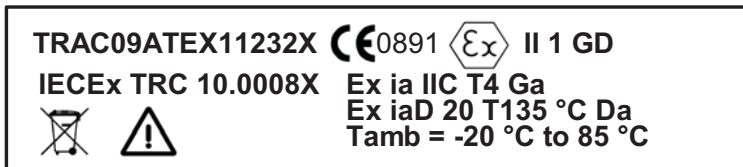
TTC200X



TTR200X



Details of markings



Details of variations to this certificate

- None.

Notes to CE marking

In respect of CE Marking, TRaC EMC & Safety Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

Notes to this certificate

TRaC certification reference: **15-0127-005537**.

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notes to issue 2

This certificate was re-issued to clarify the wording of the special conditions for safe use.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC09ATEX11232X

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
TTC200X Bill of materials *	S4759_01_05	05	2010-11-26
TTC200X Schematic Diagram	S4760_01_05	05	2010-12-07
TTC200X PCB detail	S4764_03_01	01	2010-11-18
TTC200X SM assembly	S4789_02_01	01	2010-06-01
TTC200X Sub assembly	S4790_01_01	01	2010-02-16
TTC200X General assembly	S4791_01_05	05	2011-01-31
TTC200X Module sub assembly	S4803_01_01	01	2010-02-16
TTC200X Cap sub assembly	S4805_01_01	01	2010-02-16
TTC200X Instruction Sheet	D2505_01_05	05	2011-01-31
TTR200X Bill of Materials *	S4762_01_04	04	2010-11-26
TTR200X Schematic	S4763_01_02	02	2010-04-29
TTR200X PCB detail	S4765_02_02	02	2010-11-15
TTR200X SM assembly	S4792_02_01	01	2010-06-01
TTR200X Sub assembly	S4793_01_01	01	2010-02-15
TTR200X General assembly	S4794_01_05	05	2011-01-31
TTR200X Instruction Sheet	D2504_01_05	05	2011-01-31
TTC200X TTR200X Potted module assembly	S4804_01_01	01	2010-11-25