

1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III

3 EU - Type Examination Certificate No.: **TRL03ATEX21004X (incorporating variation V1)**

4 Product: **Temperature transmitters
SEM110X/P, SEM110X/W, SEM110X/TC**

5 Manufacturer: **Status Instruments Limited,**

6 Address: **Status Business Park, Gannaway Lane, Tewkesbury, Gloucestershire,
GL20 8FD, United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 **XU1027/4478 Issue 2**.

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

EN50014:1997 + A2:1999

EN50020:2002

EN50284:1999

Except in respect of those requirements listed at section 18 of the schedule.

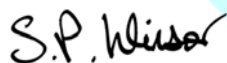
10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

 **II 1 G EEx ia IIC T5 Ta = -25 to +40 °C EEx ia IIC T4 Ta = -25 to +55 °C**

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



S P Winsor, Certification Manager

Issue date: 2019-11-01

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13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER TRL03ATEX21004X (incorporating variation V1)

15 Description of Product

The SEM110 X is a two wire 4-20 mA temperature transmitter that accepts standard temperature transducer types such as thermocouple or RTD conforming with the requirements for simple apparatus as detailed in clause 5.4 of EN50020:2002, or complying with the interconnection parameters described in this certificate. The apparatus comprises a small plastic enclosure with terminal connections for power, signal and transducer connections. There is a single PCB containing circuits with all capacitance adequately protected and with no inductive circuits. The PCB is potted covering all circuits except the adjustment screws of two potentiometers that are used for calibration purposes. The IP rating is deemed to be less than IP20 at the terminals and adjustment screws.

The thermocouple version, SEM100X/TC, connects to standard thermocouples and the RTD version, SEM100X /P,W, connects to standard RTD devices.

The safety parameters are:

$U_i = 28 \text{ V}$

$I_i = 93.3 \text{ mA}$ $P_i = 653 \text{ mW}$ $L_i = 0$

$C_i = 0$

16 Test Report No. (as added for this issue of the certificate): None.

17 Specific Conditions of Use

The equipment is to be housed in an enclosure that meets the following minimum requirements.

- 1) Enclosure to provide a minimum of IP54 ingress protection.
- 2) Enclosure must meet the requirements of EN 50014:1997+A2:1999 clause 7.3.2 with regard to avoidance of electrostatic build-up or have adequate warnings fitted.
- 3) Enclosure must provide adequate insulation resistance per EN 50014:1997+A2:1999 Clause 23.4.7.8.
- 4) Enclosure must provide adequate earth continuity protection per EN 50014:1997+A2:1999 Clause 23.4.7.9
- 5) The equipment must be operated within its certified ambient temperature range specific to the temperature classification.



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

20 Routine Tests

None.

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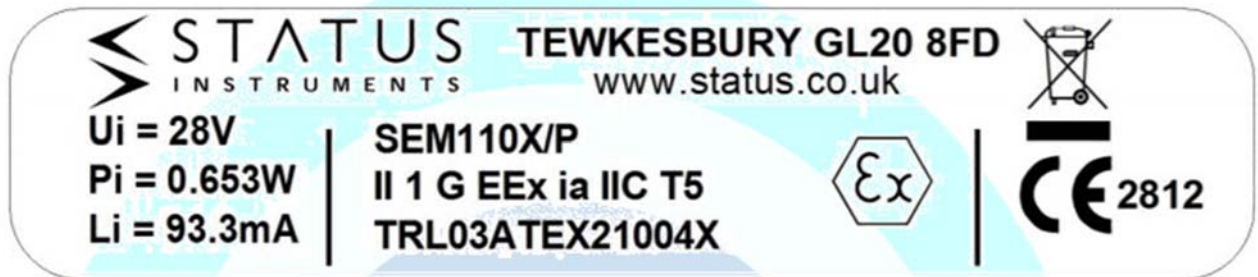
21 Specific Conditions for Manufacture

None.

22 Photographs

See test report XU1027/4478 Issue 2.

23 Details of Markings



24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 - This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation, but noting the update to marking and instructions.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: NR-STAQ-0001.

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

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

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27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).



SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**CERTIFICATE NUMBER TRL03ATEX21004X (incorporating variation V1)****APPENDIX A - TECHNICAL DOCUMENTS**

Title:	Drawing No.:	Rev. Level:	Date:
SEM110 User Guide (2 pages)	D2133_01_05 CN5712	-	-
SEM110X/ TC Certification Circuit Diagram	S1482-01-03	04	2003-07-05
SEM110X/ P,W Certification Circuit Diagram	S1226-01-02	02	2003-07-05
SEM110X Label Drawing	S1217-3_CN4074	01	2003-06-23
SEM110X/ P Item List	S1221_CN4076	07	2003-06-23
SEM110X/ TC Item List	S1481_CN4076	05	2003-06-23
SEM110X/ P,W & SEM110DX/P General Assembly (2 pages)	SA3 1221-VAR pg 1of 2	03	2003-06-24
SEM110X/ TC General Assembly (2 pages)	SA3 1481-VAR pg 1of 2	04	2003-07-05
SEM110X/ P Board, Printed Circuit	SD3 1158-2	03	2003-06-23
SEM110X/ TC Board, Printed Circuit	SD3 1251-2	02	2003-06-24