

1 EU - TYPE EXAMINATION CERTIFICATE

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

3 Unit Verification Certificate No.: **EMT16ATEX0005X (incorporating variation V1)**

4 Product: **Temperature Transmitter - SEM210X, SEM310X**

5 Manufacturer: **Status Instruments**

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 0891, 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 **TRA-029625-33-00A & TRA-029625-33-02A**.

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


EN 60079-0:2012+A11:2013 EN 60079-11:2012


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 equipment or protective system shall include the following:

 II 1 G
Ex ia IIC T4 Ga

 II 1 D
Ex ia IIIC T135 Da

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

S P Winsor, Certification Manager

Issue date: 2017-02-06

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CSF355 4.0

13 SCHEDULE TO UNIT VERIFICATION CERTIFICATE

14 EMT16ATEX0005X (incorporating variation V1)

15 Description of Product

The SEM210X and the SEM310X are intrinsically safe field mounted temperature transmitters. The device transmits temperature data remotely over a 4 – 20 mA current loop. The equipment is completely encapsulated except for the intrinsically safe I/O terminals and the connector to an external USB configuration device. The only difference between the two models is that the SEM310X features additional components to enable HART communications.

When operating in the field, the equipment is to be powered only by an intrinsically safe supply.

When being configured in the safe area there is a connection via the USB Configurator accessory (the subject of a separate IECEx/ATEX certification - IECEx EMT 16.0013X, EMT16ATEX0024X).

Table of entity parameters	
Parameter	Barrier Input (4-20 mA)
Ui	30 V
Ii	100 mA
Pi	0.75W
Um	-
Uo	-
Io	-
Li	0 mH
Ci	0 nF

16 Test report No. (associated with this certificate issue): TRA-029625-33-02A.

17 Specific Conditions of Use

1. For gas applications, the SEM210X and SEM310X temperature transmitters must be mounted in an ATEX/IECEx approved 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 SEM210X and SEM310X temperature transmitters must be mounted in a suitably ATEX or IECEx certified enclosure appropriate for the zone of end use.
3. The ambient temperature range of the enclosure will limit the permitted ambient range of the overall equipment. Refer to enclosure certificate.
4. Only suitable for connection to thermocouples, RTD temperature sensors or slide wire resistance devices. They shall meet the requirements for simple apparatus as per IEC60079-11 clause 5.7 and shall meet the dielectric withstanding requirements of IEC 60079-11 clause 6.3.13.

13 SCHEDULE TO UNIT VERIFICATION CERTIFICATE

14 EMT16ATEX0005X (incorporating variation V1)

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	None

19 Drawings and Documents

The list of controlled manufacturer's drawings and documents is given in Appendix A to this schedule.

20 Routine Tests

None.

21 Specific Conditions for Manufacture

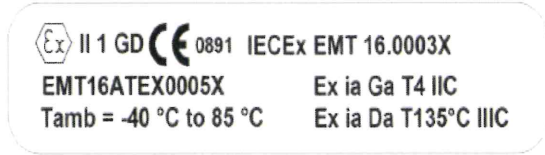
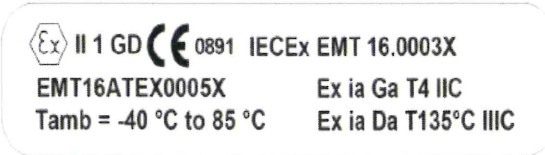
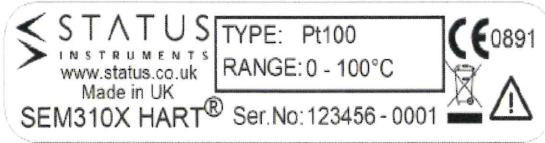
None.

22 Photographs



23 Details of Markings

Temperature transmitter (main apparatus)



24 Details of Variations to this Certificate

- Removal of FM details from label drawings.

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: **TRA-029625-32-03**.

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

Notified Body 0891 is the designation for Element Materials Technology Warwick Ltd (formerly known as TRaC Global Ltd).

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).

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT16ATEX0005X V1

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
SEM310X User Guide	D2580 (4 sheets)	01-01	2016-09
SEM310X Bill Of Materials	S5049 (5 sheets)	01-05	2016-04-06
SEM210X:			
SEM210X User Guide	D2578 (4 sheets)	01-01	2016-09
SEM210X Bill Of Materials	S5048 (5 sheets)	01-05	2016-04-06
Both Models:			
SEM310 MKII SM Assembly Certification Drawing	S5095	01-04	2016-03-02
SEM310 MKII Comfig Board PCB SM Assy	S5106	01-01	2016-01-21
SEM310 MKII Config Board PCB Sub Assy	S5107	01-01	2016-01-21
CN5327 SEM310 Series Topcap Sub Assembly Certification Drawing	S5100-VAR (2 sheets)	01	2015-10-10
SEM310/210 MKII General Assembly Certification Drawing	S5101 (2 sheets)	01-03	2016-11-18
CN5327 SEM310X/210X MKII Wiring Label	S5109	01-01	2016-03-03
SEM310/210 MKII Config Board PCB Drawing	S5105	01-01	2016-01-21
SEM210X_SEM310X Config Interface Bill Of Materials	S5074	01-02	2016-05-05
SEM310/210 MKII Config Board Circuit Diagram	S5104	01-01	2016-01-21
SEM310/SEM210 MKII Certification Circuit Diagram	S5110 (2 sheets)	01-01	2016-03-10
SEM310/210 MKII PCB Certification Drawing	S5079	05-01	2016-03-02
SEM310/210 MKII Sub Assembly Certification Drawing	S5096	01-02	2016-01-27
Sem210 MKII SM Assembly Certification Drawing	S5099	01-04	2016-03-02
SEM210X SEM310X Drawing List (Certification)	S5050	01-02	2016-02-16



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 EMT 16.0003X Issue No: 1 Certificate history:
Status: **Current** Page 1 of 4 [Issue No. 1 \(2017-02-06\)](#)
Date of Issue: **2017-02-06** [Issue No. 0 \(2016-06-13\)](#)
Applicant: **Status Instruments**
Status Business Park,
Gannaway Lane, Tewkesbury,
Gloucestershire,
GL20 8FD
United Kingdom
Equipment: **SEM210X & SEM310X temperature transmitter**
Optional accessory:
Type of Protection: **Intrinsic Safety**
Marking: Ex ia IIC T4 Ga Ex ia IIIC T135 Da

Approved for issue on behalf of the IECEx
Certification Body:

Stephen Winsor

Position:

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEX EMT 16.0003X Issue No: 1
Date of Issue: 2017-02-06 Page 2 of 4
Manufacturer: **Status Instruments**
Status Business Park,
Gannaway Lane, Tewkesbury,
Gloucestershire,
GL20 8FD
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 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0
IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*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/EMT/ExTR16.0003/00](#) [GB/EMT/ExTR16.0003/01](#)

Quality Assessment Report:

[GB/TRC/QAR10.0001/05](#)



IECEx Certificate of Conformity

Certificate No: IECEx EMT 16.0003X

Issue No: 1

Date of Issue: 2017-02-06

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The SEM210X and the SEM310X are intrinsically safe field mounted temperature transmitters. The sensors transmit temperature data remotely over a 4 – 20 mA current loop. The equipment is completely encapsulated except for the intrinsically safe I/O terminals and the connector to an external USB interface. The only difference between the two models is that the SEM310X features additional components to enable HART communications.

When operating in the field, the equipment is to be powered only by an intrinsically safe supply.

When being configured in the safe area there is a connection via the USB Configurator accessory (the subject of a separate IECEx certification - IECEx EMT 16.0013X).

CONDITIONS OF CERTIFICATION: YES as shown below:

1. For gas applications, the SEM210X and SEM310X temperature transmitters must be mounted in an IECEx approved 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 SEM210X and SEM310X temperature transmitters must be mounted in a suitably IECEx certified enclosure appropriate for the zone of end use.
3. The ambient temperature range of the enclosure will limit the permitted ambient range of the overall equipment. Refer to the IECEx certificate for the enclosure.
4. Only suitable for connection to thermocouples, RTD temperature sensors or slide wire resistance devices. They shall meet the requirements for simple apparatus as per IEC 60079-11 clause 5.7 and shall meet the dielectric withstanding requirements of IEC 60079-11 clause 6.3.13.



IECEX Certificate of Conformity

Certificate No: IECEx EMT 16.0003X

Issue No: 1

Date of Issue: 2017-02-06

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

Removal of FM details from Label Drawings.

Annex:

[Annex to IECEx EMT 16.0003X issue 1.pdf](#)



Element Materials Technology,
 Unit 1, Pendle Place,
 Skelmersdale,
 West Lancashire, WN8 9PN,
 United Kingdom

Annex to IECEx Certificate of Conformity

IECEx EMT 16.0003X issue No.:1

Manufacturer's Documents

Title:	Drawing No.:	Rev. Level:	Date:
SEM310X User Guide	D2580 (4 sheets)	01-01	2016-09
SEM310X Bill Of Materials	S5049 (5 sheets)	01-05	2016-04-06
SEM210X:			
SEM210X User Guide	D2578 (4 sheets)	01-01	2016-09
SEM210X Bill Of Materials	S5048 (5 sheets)	01-05	2016-04-06
Both Models:			
SEM310 MKII SM Assembly Certification Drawing	S5095	01-04	2016-03-02
SEM310 MKII Comfig Board PCB SM Assy	S5106	01-01	2016-01-21
SEM310 MKII Config Board PCB Sub Assy	S5107	01-01	2016-01-21
CN5327 SEM310 Series Topcap Sub Assembly Certification Drawing	S5100-VAR (2 sheets)	01	2015-10-10
SEM310/210 MKII General Assembly Certification Drawing	S5101 (2 sheets)	01-03	2016-11-18
CN5327 SEM310X/210X MKII Wiring Label	S5109	01-01	2016-03-03
SEM310/210 MKII Config Board PCB Drawing	S5105	01-01	2016-01-21
SEM210X_SEM310X Config Interface Bill Of Materials	S5074	01-02	2016-05-05
SEM310/210 MKII Config Board Circuit Diagram	S5104	01-01	2016-01-21
SEM310/SEM210 MKII Certification Circuit Diagram	S5110 (2 sheets)	01-01	2016-03-10
SEM310/210 MKII PCB Certification Drawing	S5079	05-01	2016-03-02
SEM310/210 MKII Sub Assembly Certification Drawing	S5096	01-02	2016-01-27
Sem210 MKII SM Assembly Certification Drawing	S5099	01-04	2016-03-02
SEM210X SEM310X Drawing List (Certification)	S5050	01-02	2016-02-16