

ATEX DIRECTIVE 94/9/EC

EC Type Examination Certificate No. TRL03ATEX21004X

EC TYPE EXAMINATION CERTIFICATE



Product: Temperature Transmitter
Model/Type Ref.: SEM110X/P, SEM110X/W, SEM110X/TC
Brief description of the product: SEM110X is a two wire 4-20 mA temperature transmitter that is located in a hazardous area and connect to power supplies and monitoring equipment in a safe area via a suitably certified intrinsically safe barrier or isolator.
Product type: Monitoring Equipment
Client name and address: Status Instruments Ltd
Green Lane
Tewkesbury, GL20 8DE, UK

Manufacturing location (see page 2 for details): As Client Address

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

A sample of product has been tested and found to be in conformity with Directive 94/9/EC with reference to EN50014:1997/A2:1999, EN50020:2002, EN50284:1999 as shown in the test report (reference no: XU1027/4478 Issue 2).

This EC Type Examination Certificate has been established by a body notified to the Member States and Commission of the European Communities according to the provisions of Article 9 of the ATEX Directive of 23 March 1994.

This EC Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production. The manufacturer of the equipment referred to in this certificate has the responsibility to ensure that the apparatus conforms to the specification laid down in the schedule to this certificate and has satisfied the routine verifications and tests referred to therein. This certificate and its schedules may only be reproduced in its entirety and without change. Certificate issued in accordance with the ATEX Certification Scheme.

S K Barrowcliff, Director, Safety Division

Issue date: 17 October 2003

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Distribution:
Copies 1e Status Instruments Ltd;
Copies 2 & 3 held by TRL Compliance Services Ltd.

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FULL ADDRESS OF MANUFACTURING LOCATION

Status Instruments Ltd
Green Lane Business Park
Green Lane, Tewkesbury
GL20 8DE, UK

GENERAL DESCRIPTION OF EQUIPMENT INCLUDED WITHIN THE SCOPE OF THIS CERTIFICATE

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:

$U_i = 28 \text{ V}$
 $I_i = 93.3 \text{ mA}$
 $P_i = 653 \text{ mW}$
 $L_i = 0$
 $C_i = 0$

LIST OF APPROVED DRAWINGS AND DOCUMENTS

Document	Date	Issue	Description
52-214-2133-02 pg 1of 2	26/06/03	03	Instruction Booklet – SEM110 Series Transmitters
52-214-2133-02 pg 2of 2	26/06/03	03	Instruction Booklet – SEM110 Series Transmitters
S1482-01-03	05/07/03	04	SEM110X/ TC Certification Circuit Diagram
S1226-01-02	05/07/03	02	SEM110X/ P,W Certification Circuit Diagram
S1217-3_CN4074	23/06/03	01	SEM110X Label Drawing
S1221_CN4076	23/06/03	07	SEM110X/ P Item List
S1481_CN4076	23/06/03	05	SEM110X/ TC Item List
SA3 1221-VAR pg 1of 2	24/06/03	03	SEM110X/ P,W & SEM110DX/P General Assembly
SA3 1221-VAR pg 2of 2	05/07/03	05	SEM110X/ P,W & SEM110DX/P General Assembly
SA3 1481-VAR pg 1of 2	05/07/03	04	SEM110X/ TC General Assembly
SA3 1481-VAR pg 2of 2	05/07/03	04	SEM110X/ TC General Assembly
SD3 1158-2	23/06/03	03	SEM110X/ P Board, Printed Circuit
SD3 1251-2	24/06/03	02	SEM110X/ TC Board, Printed Circuit

CONDITIONS FOR MANUFACTURING

None

SPECIAL CONDITIONS FOR SAFE 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 EN50014:1997/A2:99 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 EN50014:1997/A2:99 Clause 23.4.7.8.
- 4) Enclosure must provide adequate earth continuity protection per EN50014:1997/A2:99 Clause 23.4.7.9
- 5) The equipment must be operated within its certified ambient temperature range specific to the temperature classification.