EU Type Examination Certificate CML 20ATEX2066X Issue 1

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **SEM320X Universal Temperature Transmitter/Display**

3 Manufacturer **Status Instruments Ltd.**

4 Address Status business Park
Gannaway Lane
Tewkesbury
Gloucestershire
GL20 8FD, UK

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, 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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012

10 The equipment shall be marked with the following:


II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

Ta= -40°C to +85°C

A Snowdon

11 Description

The SEM320X Universal Temperature Transmitter/Display is a HART 5 upwards (generic device) compatible universal temperature transmitter with display. It accepts RTD, Thermocouple, Potentiometer or millivolt input signals and converts them to the industry standard (4 to 20) mA transmission signal.

The SEM320X Universal Temperature Transmitter/Display consists of polyurethane based potted main and display PCBs, housed in a polycarbonate and ABS sub-assembly. The sub-assembly will be fitted inside a separately certified aluminium or stainless-steel enclosure with or without a silicone RTV cemented glass windowed lid and nitrile O-rings.

When operating in the field, the equipment is to be powered only by an intrinsically safe supply. The equipment has the following parameters:

Ui = 30 Vdc

Ii = 100 mA

Pi = 750 mW

Ci = 0

Li = 0

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	03 Aug 2020	R13122A/00	Issue of prime certificate
1	20 Aug 2020	-	Format updated

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. The SEM320X Temperature Transmitter shall be provided with a separately certified ATEX/IECEx enclosure. The enclosure may be approved for any Zone provided it meets the following requirements, and a copy of the installation documents for the separately certified enclosure shall be provided with the equipment.

- Suitable for an ambient temperature range of at least -40°C to +85°C, and if applicable, a service temperature of +100°C.
- Has a ingress protection rating of at least IP54.
- Does not have any electrostatic hazard warnings.

iii. A copy of the instructions shall be supplied with the equipment.

iv. Where the separately certified enclosure provided with the equipment contains, by mass, more than 10% in total of aluminium, magnesium, titanium and zirconium, the installer/user shall be made aware of this and instructions shall detail the specific conditions of use with regard to protecting the enclosure from impact and friction.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. The SEM320X Temperature Transmitter is only suitable for connection to Thermocouple(s), RTD temperature sensor(s) or slide wire resistance devices or other simple apparatus. They shall conform to the requirements for simple apparatus as defined in IEC/EN 60079-11 clause 5.7 and shall meet the dielectric withstanding requirements of IEC/EN 60079-11 clause 6.3.13. The insulation must be capable of withstanding an r.m.s a.c. test voltage of 2U + 1000V, a minimum of 1500V r.m.s, where U is the sum of the voltages of the intrinsically safe and the non-intrinsically safe circuit.

ii. Connections to the separately certified enclosure shall be suitable for the protection concepts of the enclosure and maintain the minimum ingress protection rating of IP54.

iii. When connected to sensors measuring temperatures within a process or location, the installer shall ensure the temperature transmitter module is not exposed to temperatures outside the ambient temperature range of -40°C to +85°C.

iv. The SEM320X Temperature Transmitter may be fitted inside an enclosure having a material composition containing by mass more than 10% in total of aluminium, magnesium, titanium and zirconium. Where this is the case, the installation shall protect the enclosure from impacts and friction.

v. The equipment shall only be configured by means of the USBX configurator, covered under EMT16ATEX0024X / IECEx EMT 16.0013X; connection shall be in the safe area only. Additionally, the SEM320X Temperature Transmitter may be configured in hazardous area via HART communication.

Certificate Annex

Certificate Number	CML 20ATEX2066X
Equipment	SEM320X Universal Temperature Transmitter/Display
Manufacturer	Status Instruments Ltd.

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
S5313-01-01	1 to 2	01	03 Aug 2020	SEM320X Module General Assy Certification Drawing
S5314-01-01	1 of 1	01	03 Aug 2020	SEM320X Main Potting Assy Certification Drawing
S5315-01-01	1 of 1	01	03 Aug 2020	SEM320X Display Potting Assy Certification Drawing
S5312-01-01	1 of 1	01	03 Aug 2020	SEM320X Typical Final Assy Certification Drawing
S5342-01-01	1 of 1	01	03 Aug 2020	SEM320X General Assy Item List
S5241-02-01	1 of 1	01	03 Aug 2020	SEM320X Main PCB Drawing
S5308-01-01	1 of 1	01	03 Aug 2020	SEM320X Display Certification Circuit Diagram
S5309-01-01	1 of 1	01	03 Aug 2020	SEM320X Display PCB SM Assy Certification Drawing
S5310-01-01	1 of 1	01	03 Aug 2020	SEM320X Display PCB Sub Assy Certification Drawing
S5338-01-01	1 to 2	01	03 Aug 2020	PCB Artwork – Copper SEM320X Display Certification Drawing
S5311-01-01	1 of 1	01	03 Aug 2020	Display PCB Item List (Certification)
S5337-01-02	1 to 4	02	03 Aug 2020	PCB Artwork – Copper SEM320X Main Certification Drawing
S5241-04-01	1 of 1	01	03 Aug 2020	SEM320X Main PCB Drawing
S5304-01-02	1 to 2	02	03 Aug 2020	SEM320X Main PCB Circuit Diagram (Certification)
S5305-01-02	1 of 1	02	03 Aug 2020	SEM320X Main PCB SM Assy Certification Drawing
S5306-01-01	1 of 1	01	03 Aug 2020	SEM320X Main PCB Sub Assy Certification Drawing
S5307-01-02	1 to 5	02	03 Aug 2020	SEM320X Main PCB Item List (Certification)
S5316-01-01	1 of 1	01	03 Aug 2020	SEM320X Module Support Certification Drawing
S5317-01-01	1 of 1	01	03 Aug 2020	SEM320X Module Housing Certification Drawing
S5318-01-01	1 of 1	01	03 Aug 2020	SEM320X Display Cover Certification Drawing
S5339-01-01	1 of 1	01	03 Aug 2020	SEM320X Front Label Certification
S5340-01-01	1 of 1	01	03 Aug 2020	SEM320X Back Cover Certification Drawing

Issue 1 – no drawings introduced