EC Type Examination Certificate CML15ATEX3052U Issue 1

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

2 Component **SD01533 Stator RTD**

3 Manufacturer **Sensing Devices Ltd**

4 Address **Southport**
PR8 6AG
UK

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

6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 9 of Directive 94/9/EC, certifies that this component 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 The 'U' suffix after the certificate number indicates that the component is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EC Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 94/9/EC Article 8 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 60079-0:2012 + A11, Corr 3:2014 EN 60079-7:2007

10 The equipment shall be marked with the following:

II 2 G

Ex e IIC Gb

H M Amos
Technical Manager

11 Description

The SD01533 Stator Resistance Temperature Detector (RTD) is designed to be installed within the stator of an electric machine. It consists of a simplex or duplex PT, NI or Cu sensing element encased in a strip of insulated board. Connections are made via flying leads in a two, three or four wire connection arrangement.

The apparatus has the following rating:

Simplex Version (1 Element)

		Channel 1
Voltage	=	60 V
Current	=	2 mA
Power	=	10 mW

Duplex Version (2 Element)

		Channel 1	Channel 2
Voltage	=	60 V	60 V
Current	=	2 mA	2 mA
Power	=	10 mW	10 mW

Variation 1
The following modifications to the original assessment have been addressed:

i. Addition of alternative sensing element type Cu
ii. Alternative insulation material G11 for Class F applications
iii. Addition of maximum working temperature to label

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26/05/2015	R500A/00	Issue of prime certificate
1	29/01/2016	R931A/00	To permit changes listed in Variation 1

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

13 Conditions of manufacture

None

14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the component,

14.1 When installed, the permanently attached cable is to be mechanically fixed to prevent pulling and protected, secured or routed to avoid insulation damage as required by EN 60079-7:2007 clause 4.8.

14.2 When installed, the insulated lid of the Stator RTD is to be held in position in the insulated body recess, eg Stator RTD installed beneath or within the windings of an electric machine.

14.3 The Stator RTD is to be subjected to the routine dielectric strength test of EN 60079-7:2007 clause 7.1. A test voltage of 500Vrms is to be applied for 60 s between the Stator RTD leads and earth. Alternatively, a voltage 20% higher may be applied for at least 100mS. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.

14.4 The Stator RTD has an operating temperature range of -50°C to 180°C and is suitable for Class F and Class H insulation systems.

14.5 The following temperature classes may be assigned when used in equipment at the above maximum ratings: T3 for maximum ambient/exposed temperature of 180°C; T4 for maximum ambient/exposed temperature of 120°C; T5 for maximum ambient/exposed temperature of 85°C; T6 for maximum ambient/exposed temperature of 70°C.

14.6 The Stator RTD is to be installed within an enclosure which meets the requirements of EN 60079-0:2012 and which provides IP54 ingress protection as required by EN 60079-7:2007 clause 4.9.

14.7 During the high voltage stator test of the electric machine, the Stator RTD leads are to be connected to earth.

Certificate Annex

Certificate Number	CML 15ATEX3052U
Equipment	SD01533 Stator RTD
Manufacturer	Sensing Devices Ltd

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

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
SD01533	1 to 3	A	26/05/2015	Ex e Stator RTD
SD01533 Detail	1 of 2	A	26/05/2015	Simplex Stator RTD Body
SD01533 Detail	2 of 2	A	26/05/2015	Duplex Stator RTD Body

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
SD01533	1 to 3	B	29/01/2016	Ex e Stator RTD
SD01533 Detail	1 of 2	A	29/01/2016	Simplex Stator RTD Body
SD01533 Detail	2 of 2	A	29/01/2016	Duplex Stator RTD Body