

EU-TYPE EXAMINATION CERTIFICATE

- [2] COMPONENT INTENDED FOR USE ON/IN AN EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: **Presafe 19 ATEX 25013U** **Issue 0**
- [4] Product: **Slot Wire Wound RTD PT-100 Sensor (Simplex/Duplex)**
- [5] Manufacturer: **Raviraj Process Controls**
- [6] Address: **RAVIRAJ HOUSE, Plot No. A-677, Khairne MIDC, Koparkhairne, Navi Mumbai – 400 709, India**
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Presafe AS, notified body number 2460, 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 confidential reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2018, EN 60079-7: 2015, EN 60079-11: 2012
- [10] The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system
- [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 the product shall include the following:

 **II 2 GD Ex eb IIC Gb, Ex ia IIC Gb, Ex ia IIIC Db**



Date of issue:
2020-06-26



Asle Kaastad
For DNV GL Presafe AS
The Certificate has been digitally signed.
See www.dnvgl.com/digitalsignatures for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 19 ATEX 25013U Issue 0

[15] **Description of Product**

Slot wire wound Sensor Simplex/Duplex, Model: RSWWT1, RSWWT2 and RSWWT3 are used to measure winding temperature of the motor/generator. These sensors are sandwich between the winding of motor/generator to continues measurement of the temperature.

RSWW sensors are bifilar wire wounded PT100 sensors either simplex or duplex circuit. The connecting cable connected through solder with secure manner. The overall insulation of the sensors either heat shrinks PTFE or Kapton or PTFE over Kapton.

Type designation

RSWWT1, RSWWT2, RSWWT3

Ordering	Code Model-PT100-C-X-L-W-H-N-G-CC-LL
Model	RSWWT1 - Silicon Fiber glass sheet; Jacket Kapton HN RSWWT2 - Silicon Fiber glass sheet; inner Jacket Kapton HN; Outer Jacket PTFE heat Shrink RSWWT3 - Silicon Fiber glass sheet; Inner Jacket Kapton HN; SS or SPC Shield; Outer jacket PTFE
Element	PT100
C Slot Type	S-Simplex D-Duplex
X Accuracy	A - Class A B - Class B
L W Slot Width	Slot Length 80 to 500 Simplex: 6,8,10,11,12,15,18,20 Duplex: 10,12,15,18,20
H Slot Height	RSWWT1: ≥ 1.2 to < 2 RSWWT2: ≥ 2 to < 5 RSWWT3: ≥ 2.5 to < 5
N No of Wires	Simplex - 2/3/4 Duplex - 4/6/8
G Wire Gauge	RSWWT1: AWG 24 and AWG 26 Others: AWG 20 to AWG 26
CC Wire Construction	Type of Cable C1: PTFE single/Twisted leads C2: PTFE Flat Leads with PTFE jacketed C3: PTFE Twisted Leads with PTFE jacketed C4: PTFE twisted Leads with PTFE/Shielded/ PTFE
LL	Wire Length 100 to 20000

Electrical Data (Maximum)

For Ex eb: 10 Volts, 25 mA and 25 mW
For Ex ia: Ui: 10 V, Ii: 25 mA, Pi: 25 mW
Ci: Only Cable capacitance, Li: Only Cable Inductance

Degrees of protection (IP Code)

N/ A

Temperature range:

-30°C to +180°C

Routine tests

Manufacturer shall carry out Dielectric strength test at 2.5 kV a.c. for 60±10 seconds.

[16] **Report No.:** 2019-9462
Project No.: PRJC-579708-2018-PRC-IND

[17] **Schedule of Limitations**

- The mounting of the Slot wire wound RTD has to be assessed in the context of the certification of the equipment.
- The Slot wire wound RTD has to be installed protected against mechanical load, Sharp bending as well as mechanical stress.
- The flying lead of the Slot wire wound RTD shall be connected to appropriate Ex certified terminal box as a fixed installation.
- Slot wire wound RTD shall be impregnated or sealed with the winding by the motor/generator manufacturer.
- The dielectric strength test with the motor winding according to EN 60079-7 has to be carried out by the motor/generator manufacturer.
- The Slot wire wound RTD shall be installed in Ex eb / Ex ec /Ex nA / Ex db certified Ex motor/generator enclosure.
- The Slot wire wound RTD shall be connected through certified Ex ia/ Ex ib (Barrier model No. MTL4582B; MTL4576; MTL4575B of EATON ELECTRIC LTD) barrier as per IEC 60079-11

[18] **Essential Health and Safety Requirements**

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] **Drawings and documents**

Number	Title	Rev.	Date
RPC-GA-ATEX-001	Technical Drawings of Slot Wire Wound RTD PT-100 Simplex/ Duplex (1 Sheet)	0	30.10.2018

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2020-06-26	2019-9462

END OF CERTIFICATE