

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa11ATEX0068X – Issue 3**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **A Moni PT100–Ex e Sensor Assembly**

5 Held by: **nVent Thermal Belgium NV**

6 Address: **Research Park Haasrode - Zone 2, Romeinse straat 14, B-3001 Leuven, Belgium**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa11ATEX0068X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, 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.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

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


EN IEC 60079-0: 2018 EN IEC 60079-7: 2015+A1: 2018 EN 60079-11: 2012 EN 60079-31: 2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the 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 the product shall include the following:

 **Refer to Schedule**

SGS Fimko Oy Customer Reference No. **5034**

Project File No. **23/0201**

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Mikko Välimäki
SGS Fimko Oy

13 **Schedule**

14 **Certificate Number Baseefa11ATEX0068X – Issue 3**

15 **Description of Product**

The Type MONI-PT100-Ex e Sensor Assembly comprises an assembly of the following certified items:

- a) A Rose Type 26 08 08 06 GRP Enclosure afforded PTB01ATEX1061U or Raychem RPG GRJ 807555 Enclosure afforded SIRA18ATEX3261U.
- b) A WAGO terminal strip type 264-***/*/* afforded PTB98ATEX3129U or 2-wire Programmable Transmitter type 5333D afforded DEKRA20ATEX0105X.
- c) Type RTL 671T Temperature Sensor afforded Baseefa11ATEX0070X.
- d) An M16 brass M.I cable gland afforded Baseefa11ATEX0069X.

An M20 threaded hole is provided to facilitate the connection of external cables, via a suitably certified Ex e or Ex d cable gland to maintain the IP66 ingress protection of the enclosure.

The Moni PT100–Ex e Sensor Assembly may be marked with the certification code:

⊕ Ex II 2GD Ex eb IIC T6 Gb $-50^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
Ex tb IIIC T85°C Db IP66

or when the Type MONI-PT100-Ex e Sensor Assembly contains a Transmitter Type 5333D:

⊕ Ex II 1G Ex ia IIC T6...T4 Ga Ambient temperature range see below
II 2D Ex ia IIIC T85°C Db $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

The relation between ambient temperature range and temperature class:

Temperature class	$P_i = 0.84\text{W}$	$P_i = 0.75\text{W}$
	Ambient temperature range	Ambient temperature range
T6	$-40^{\circ}\text{C} \leq T_a \leq +47^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
T5	$-40^{\circ}\text{C} \leq T_a \leq +62^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$
T4	$-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$	$-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$

Electrical data:

Supply / output circuit (terminals 1 and 2):

Only for connection to a certified intrinsically safe circuit:

$U_i = 30\text{ V}$; $I_i = 120\text{ mA}$; $P_i = 0.84\text{ W}$ or $P_i = 0.75\text{ W}$; $C_i = 1\text{ nF}$; $L_i = 10\text{ }\mu\text{H}$.

Sensor circuit (terminals 3, 4 and 6):

$U_o = 30\text{ V}$; $I_o = 8\text{ mA}$; $P_o = 60\text{ mW}$; $C_o = 66\text{ nF}$; $L_o = 35\text{ mH}$.

16 **Report Number**

See Certificate History

17 **Specific Conditions of Use**

1. Not more than one single or multiple strand lead shall be connected to either side of the terminals, unless the conductors have been joined in a suitable manner, e.g. two conductors into a single insulated boot lace ferrule.
2. Leads connected to the terminals shall be insulated suitable for 255V and this insulation shall extend to 1mm of the terminal throat.
3. All terminal screws, used or unused, shall be tightened to between 0.5 Nm and 0.7 Nm.
4. The temperature at the sensor bulb shall not exceed 585°C
5. The temperature at the cable gland shall not exceed 60°C.
6. The minimum bend radius is 6 times the diameter of the probe.
7. The minimum installation temperature of the probe is -50°C .
8. The probe gland must be tightened to a torque of 8Nm.

18 Essential Health and Safety Requirements

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
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
RGD 1102-204	1 of 1	1	23-07-2024	nVent MONI – 4-20 mA Approval label
RGD 1102-77	1 of 1	4	23-07-2024	MONI-PT100-EXE/AMB nVent Lid label

For all other drawings see Baseefa11ATEX0060X

These drawings are common to IECEx BAS 11.0033X and SGS23UKEX0153X

20 Certificate History

Certificate No.	Date	Comments
Baseefa11ATEX0068X	17 January 2012	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0010/00. Project File No. 09/0859.
Baseefa11ATEX0068X/1	11 February 2019	i) To confirm the certificate is now held in the name of nVent Thermal Belgium NV. ii) To update the product marking labels to show the name of nVent Thermal Belgium NV. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR18.0124/00. Project File No. 17/0864.
Baseefa11ATEX0068X/2	30 April 2020	i) To assess and confirm that the equipment covered by this certificate has been assessed against the latest requirements of the following standards: EN IEC 60079-0:2018, EN 60079-7:2015 and EN 60079-31:2014. ii) To introduce an alternative Ex component enclosure, a Raychem RPG GRJ 807555 enclosure, afforded SIRA18ATEX3261U. iii) To clarify the description of the Product. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR20.0051/00. Project File No. 18/0129.

Certificate No.	Date	Comments																				
<p>Baseefa11ATEX0068X Issue 3</p>	<p>20 September 2024</p>	<p>This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN IEC 60079-7:2015+A1: 2018.</p> <p>The issue of this certificate also permits the addition of the 2-wire Programmable Transmitter type 5333D to the design of the Type MONI-PT100-Ex e Sensor Assembly.</p> <p>The equipment is now marked as shown below:</p> <table border="0"> <tr> <td style="text-align: center;">⊕</td> <td>II 2GD</td> <td>Ex eb IIC T6 Gb</td> <td>-50°C ≤ Ta ≤ +60°C</td> </tr> <tr> <td></td> <td></td> <td>Ex tb IIIC T85°C Db IP66</td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">or</td> </tr> <tr> <td style="text-align: center;">⊕</td> <td>II 1G</td> <td>Ex ia IIC T6...T4 Ga</td> <td>For ambient temperature range see schedule</td> </tr> <tr> <td></td> <td>II 2D</td> <td>Ex ia IIIC T85°C Db</td> <td>-40°C ≤ Ta ≤ +60°C</td> </tr> </table> <p>The associated test and assessment is documented in Test Report No. GB/SGS/ExTR23.0100/00. Project File No. 23/0201.</p>	⊕	II 2GD	Ex eb IIC T6 Gb	-50°C ≤ Ta ≤ +60°C			Ex tb IIIC T85°C Db IP66		or				⊕	II 1G	Ex ia IIC T6...T4 Ga	For ambient temperature range see schedule		II 2D	Ex ia IIIC T85°C Db	-40°C ≤ Ta ≤ +60°C
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<p>For drawings applicable to each issue, see original of that issue.</p>																						