



# DET NORSKE VERITAS

# EC-Type Examination C

- EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC
- [3] EC-Type Examination Certificate Number:

**DNV 07 ATEX 3697X** 

Rev. 2

[4] Equipment or Protective System:

Pressure and/or Temperature Transmitter Models 1\*\*, 2\*\*, and 3\*\*, with or without Temperature Output

Applicant – Manufacturer or Authorized representative: [5]

[6] Address: GP:50 Ltd. 2770 Long Road Grand Island, NY 14072 USA

- This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate [7] and the documents therein referred to.
- DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, [8] certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems 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 14.

- Compliance with the Essential Health and Safety Requirements has been assured by compliance with: [9] EN 60079-0: 2012 and EN 60079-11: 2012
- If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment [11] or protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.
- [12] The marking of the equipment or protective system shall include the following:



II1G

Ex ia IIC T5 Ga

 $-40 \, ^{\circ}\text{C} \le \text{T}_{\text{a}} \le +85 \, ^{\circ}\text{C}$ 

Høvik, 2015-10-09 for Det Norske Veritas AS





Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The digitally signed and electronically distributed document is the original and valid certificate. Ref.: www.dnv.com/digitalsignatures

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Ventas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300,000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

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[13]

#### Schedule

#### [14] EC-TYPE EXAMINATION CERTIFICATE No.: DNV 07 ATEX 3697X

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Certificate History

| Revision | Description   | Report no. | Issue date |
|----------|---|------------|------------|
| -        | Original certificate  | 2007-3242  | 2007-06-26 |
| 1        | EEx marking changed to Ex, slight modification to circuit, some changes in model number options, updated standards references.              | 2008-3481  | 2010-09-20 |
| 2        | Add Models 1** and 2**. Include alternate circuit design for Model 3**. Update standards references to EN 60079-0:2012 and EN 60079-11:2012 | 2015-3057  | 2015-10-09 |

#### [15] Description of Equipment or Protective System

The Model 1\*\*, 2\*\*, and 3\*\* are pressure/temperature transmitters constructed of a cylindrical stainless steel body with a pressure port/sensor assembly on one end and an electrical connection/wiring assembly on the other end. Electrical connections are made either via integral flying leads or via an integral connector. Pressure transmitter units may also include an optional RTD for measurement of temperature, which is considered as a separate electrical circuit from that of the pressure transmitter electronics.

#### Type Identification

# Model 1\*\*alb, where:

- \* = Various numeric characters completing the base model number
- a = Approval Code: A = ATEX and IECEx Intrinsic Safety
  - G = ATEX/IECEx/FM/CSA Intrinsic Safety
- b = Various alphabetic or alphanumeric characters representing product options/modifications that do not affect certification.

#### Model 2\*\*alb, where:

- \* = Various numeric characters completing the base model number
- a = Approval Code: A = ATEX and IECEx Intrinsic Safety
  - G = ATEX/IECEx/FM/CSA Intrinsic Safety
- b = Various alphabetic or alphanumeric characters representing product options/modifications that do not affect certification.

#### Model 3\*\*abIc, where:

- \* = Various numeric characters completing the base model number
- a = Various alphabetic or numeric characters completing model number for 4-20mA product
- b = Approval Code: A = ATEX and IECEx Intrinsic Safety
  - G = ATEX/IECEx/FM/CSA Intrinsic Safety
- c = Various alphabetic or alphanumeric characters representing product options/modifications that do not affect certification.

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# **Electrical Data**

|                          | Ui  | I <sub>i</sub> | Pi   | Ci     | Li  |
|--------------------------|-----|----------------|------|--------|-----|
| Model 1**                | 15V | 100mA          | 0.7W | 0nF    | 0mH |
| Model 2**                | 28V | 100mA          | 0.7W | 30nF   | 0mH |
| Model 2**<br>(Option NF) | 28V | 100mA          | 0.7W | 20nF   | 0mH |
| Model 3**                | 28V | 100mA          | 0.7W | 27.2nF | 0mH |
| RTD (optional)           | 28V | 100mA          | 0.7W | 0nF    | 0mH |

# Degrees of protection (IP Code)

IP20 minimum

# [16] Project No.: PRJC-65307-2008-PRC-USA

#### **Descriptive Documents**

| Number        | Title  | Rev. | Date       |
|---------------|--|------|------------|
| A8AD-1XX-AI.A | Model 1XXAI/GI ATEX Intrinsic Safety                       | -    | 2015-04-16 |
| A8AD-2XX-AI.A | Model 2XXAI/GI ATEX Intrinsic Safety                       | -    | 2015-04-16 |
| A8AD-3XX-AI.A | Model 3XXAI/GI ATEX Intrinsic Safety                       | -    | 2015-04-16 |
| 8C1-55.00     | ATEX/IEC Intrinsic Safety, Models 37X AI/GI                | В    | 2015-04-16 |
| 8C1-55.01     | ATEX/IEC Intrinsic Safety, Models 3XX AI/GI                | В    | 2015-04-16 |
| 8C1-69.00     | ATEX/IEC Intrinsic Safety, Models 17X AI/GI                | -    | 2015-04-16 |
| 8C1-69.01     | ATEX/IEC Intrinsic Safety, Models 1XX AI/GI                | -    | 2015-04-16 |
| 8C1-71.00     | ATEX/IEC Intrinsic Safety, Models 27X AI/GI                | -    | 2015-04-16 |
| 8C1-71.01     | ATEX/IEC Intrinsic Safety, Models 2XX AI/GI                | -    | 2015-04-16 |
| 8W9-52        | PCBD, Signal Conditioning Board                            | A3   | 2014-05-06 |
| 8W9-53.00     | PCBD, Bridge Amp Board, 2 Layer                            | A2   | 2014-05-06 |
| 8W9-57        | PCBD, Intrinsic Safety Barrier, 2 Layer                    | 3    | 2014-05-06 |
| 8W9-59.00     | PCBD, Compensation, 1.375 DIA                              | A6   | 2015-04-16 |
| 8W9-93.105    | PC Board, General Voltage, Power Board                     | C1   | 2015-04-16 |
| 8W9-94.105    | PC Board, General Voltage, Signal Conditioning Board       | C1   | 2015-04-16 |
| 8W9-96.10     | PC Board, General Current, Signal Conditioning, PCB 1      | C1   | 2015-04-16 |
| 8W9-97.10     | PC Board, General Current, Signal Conditioning, PCB 2, V.1 | D1   | 2015-04-16 |
| 8W9-97.20     | PC Board, General Current, Signal Conditioning, Low Noise  | B1   | 2015-04-16 |
| 8W9-99.00     | PC Board, Zero & Span                                      | D1   | 2015-04-16 |
| 1W9-105.00    | PCBD, EMI/RFI Board  | -1   | 2015-04-16 |

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#### [17] Special Conditions for Safe Use

- 1) The equipment is not capable of passing the 500V dielectric test prescribed in EN 60079-11: 2012 Clause 6.3.13. This must be considered during installation of the equipment.
- 2) When the optional RTD is included, it shall be considered as a separate electrical circuit and shall be installed as such.

# [18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE

f any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Ventas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damagechowever, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas hall mean the Foundation Det Norske Veritas."

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