



1. EU-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU

3. EU-Type Examination Certificate No: FM24ATEX0015X

4. Equipment or protective system:
(Type Reference and Name) Model VPAC II Valve Leak Detector

5. Name of Applicant: MISTRAS Group Inc

6. Address of Applicant 195 Clarksville Rd, Princeton Junction, New Jersey 08550, United States of America

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 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 confidential report number:

PR468250 dated 18 September 2024

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018+A11:2024 , EN 60079-11:2012

10. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11. This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include:



II 1 G Ex ia IIC T3 Ga
-20°C ≤ Ta ≤ +55°C

Certificate issued by:

Digitally signed by
Richard Zammit
Location: Ireland
Foxit PDF Editor
Version: 13.1.3

Certification Manager, FM Approvals Europe Ltd.

Date 19 September 2024

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals Europe Ltd. One Georges Quay Plaza, Dublin. Ireland. D02 E440
T: +353 (0) 1761 4200 E-mail: atex@fmapprovals.com www.fmapprovals.com

F ATEX 020 (Jul/2024)



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SCHEDULE

EU-Type Examination Certificate No. FM24ATEX0015X

13. Description of Equipment or Protective System:

The model VPAC II Valve Leak Detector is designed to monitor leak-associated acoustic emission signal levels by measuring the RMS (dB) values of those signals. The circuitry of the detector is powered by four AA-size Ni-Cad batteries that are encapsulated and contained within the housing. The unit consists of one printed circuit board. The pcb interfaces with six membrane keys along with a liquid crystal display for facilitating data entry and acquisition. The VPAC II may be used with sensors D9203 IS, D9241 IS, or VS9203-IS.

Model VPAC II Valve Leak Detector

14. Specific Conditions of Use:

1. The Model VPAC II Valve Leak Detector housing contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.
2. The Model VPAC II Valve Leak Detector may only be used with the Model D9203-IS VPAC Resonant AE Sensor, Model DS9241-IS Low Frequency VPAC AE Sensor and Model VS9203-IS Valve-squeak Sensor with waveguide.

15. Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. Test and Assessment Procedure and Conditions:

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17. Schedule Drawings

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

18. Certificate History

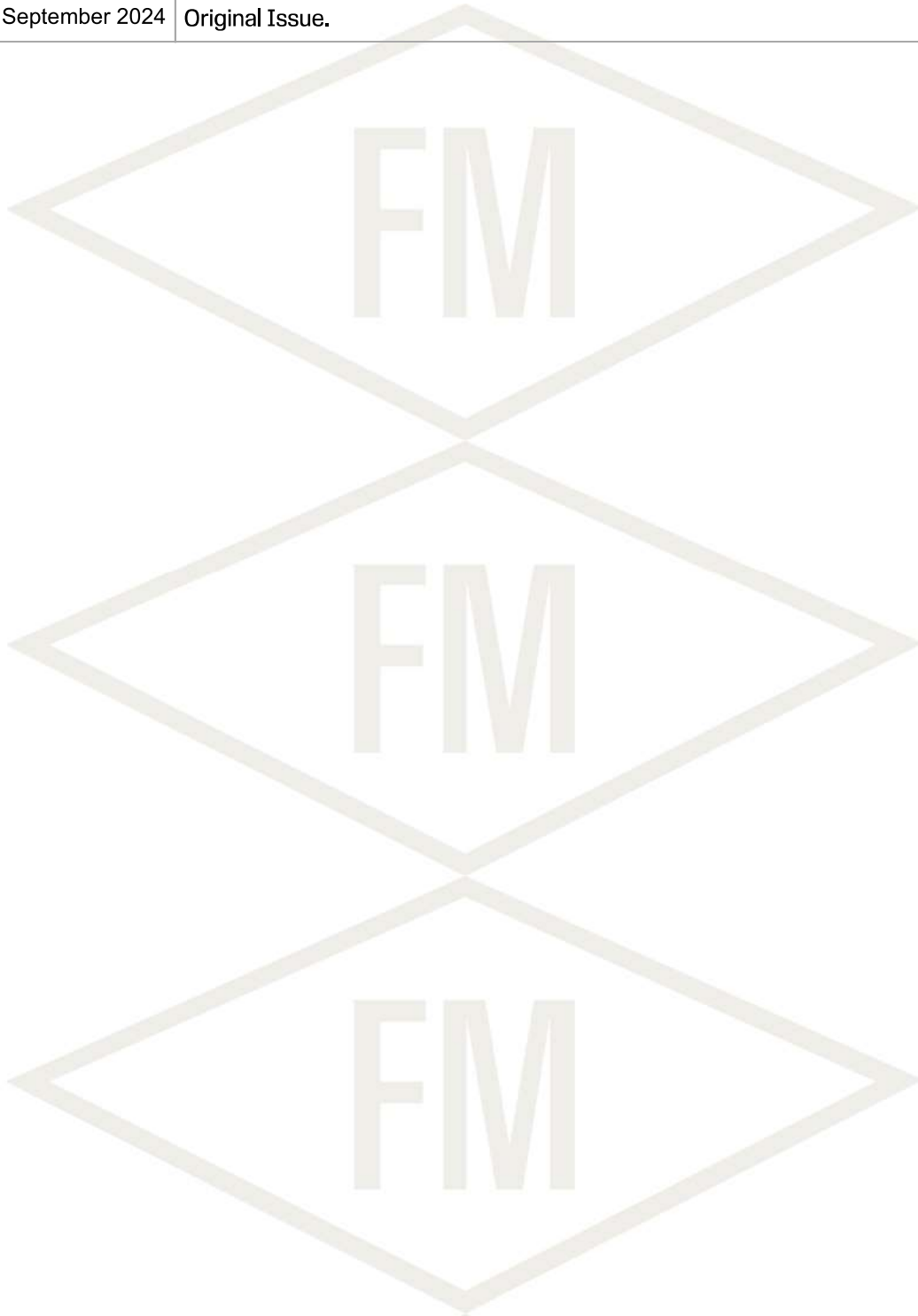
Details of the supplements to this certificate are described below:

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

SCHEDULE

EU-Type Examination Certificate No. FM24ATEX0015X

Date	Description
19 September 2024	Original Issue.



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FM Approvals Europe Ltd. One Georges Quay Plaza, Dublin. Ireland. D02 E440
T: +353 (0) 1761 4200 E-mail: atex@fmapprovals.com www.fmapprovals.com

Blueprint Report

Mistras Group Inc (1000002320)

Class No 3610

Original Project I.D. 468250

Certificate I.D. FM24ATEX0015X

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>
5131-4002-F	6	Assy, Sensor Cable (D9203-IS)	PR468250
5133-1503-IS	6	Label, Rear, Intrinsically Safe, VPAC-II	PR468250
5133-1504	0	Label, Battery Warning, VPAC-II	PR468250
5133-2010	5	PCB Artwork	PR468250
5133-2011	5	VPAC II Acoustic Leak Detector Board (Stackup)	PR468250
5133-2014-IS_BOM	5	VPAC II BOM	PR468250
5133-2014-IS	5	VPAC II Acoustic Leak Detector Board (Layout)	PR468250
5133-2021	3	VPAC II Battery Pack Protection Board	PR468250
5133-3010	5	VPAC II Schematic, Valve Leak Detector	PR468250
5133-3020	3A	Battery Pack Protection Board Schematic	PR468250
5133-5015-IS-BOM	2	Assy, Top, Acoustic Leak Detector, IS (BOM)	PR468250
5133-5015-IS	2	Top Assembly, Intrinsically safe, VPAC II-IS	PR468250
5133-5095	5	Assembly, Battery Pack, VPAC II	PR468250
5133-6000	3	VPAC II, Control Drawing	PR468250